

Egyptian Knowledge Bank بنك المعرفة المصري

15 ديسمبر 2020

# تحديث الرد المقدم بتاريخ 17 نوفمبر 2020

بعنوان

الرد على استفسارات وزارة التعليم العالى و البحث العلمى المطلوبة من بنك المعرفة الرد على استفسارات وزارة التعليم العالى و البحث العلمي المصرى بتاريخ 16 نوفمبر 2020



Egyptian Knowledge Bank بنك المعرفة المصري

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  - Thinqi Medical LMS Stats 03/12/2020
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Egyptian Knowledge Bank بنك المعرفة المصري

# تحديث مرفق (1) المقدم بتاريخ 17 نوفمبر 2020

# مرفق 1

# MOHE Feature descriptions CDSM 11/12/2020

شرح للخصائص المطلوبة من قبل وزارة التعليم العالى والبحث العلمي و الرد عليها



# **MOHE: Feature descriptions**

FAO: Dr. Ahmed Daher, Deputy Minister of the Ministry of EducationFrom: Dan Sivak, CDSM InteractiveDate: 11/12/2020Version: 1.2

Update 11/12: While we wait for contracts to be confirmed, and without a contractual commitment CDSM has proceeded with designing the solution and developing required functionality for the future. This document includes updates for the key areas highlighted by stakeholders where new development is required.

### 1- Administration (item 1-6)

- a. Requirements:
  - i. Ability to create new role using an easy UI which shows full system privileges
  - ii. Ability to edit existing role using an easy UI which shows full system privileges
  - *iii.* Ads: system not support commercial ads currently, is it possible to be developed? how much time required for that.

#### CDSM Response 16/11

CDSM will provide the administration team with an area that allows them to create new roles and edit existing ones.

The LMS currently has support for the administration team to select which roles are active for users.

Roles		
Custom Ma	anaged	
	Keyword Administrator	×
	News Administrator	×
	Provisioning Administrator	×
	User Administrator	×
	Teacher A role for Teacher Users	
	Admin A role for creating a user an admin	×
	Learner A basic Learner Role	×

#### Applying roles to a user



Configuration of which permissions are available from the role, for example 'can create a Course' is configurable via the user interface in the Roles area.

< Back to roles Teacher Details	Policies Name	Total Statements	Create
Policies	Teacher	19	04/07/2018 - 11:16
Members	courses-view	2	18/09/2018 - 13:13
	Deny tags	1	03/04/2019 - 10:12
	Deny profile edits	1	15/04/2019 - 09:36
	teacher-guides	1	11/03/2020 - 15:21

Defining permissions for a role

The policy authoring panel requires additional documentation to support selection of appropriate permissions for a user. This is usually executed via CDSM as a support task when the platform is configured.

We understand that this will not suit the MOHE requirements. CDSM will provide a user interface for permissions providing a list or equivalent control with check boxes allowing administrators a view of all relevant permissions and a simple ability to toggle them on or off.

#### **Additional notes**

To supply an accurate engineering estimate for the ability to support Ads, we would need further information around the overall requirement.

#### CDSM Update 11/12:

Policy authoring and role authoring has been streamlined. A visual editor has been introduced where administrators can select from a matrix control for enabling/disabling the permissions that a Role has.

In addition to this, permission assignment has been expanded to include Organizational Chart nodes. This has also been extended in the Roles area so you can see at a glance what permissions apply to any given user.

This will be demonstrated in Cairo the week of 13/12/2020.



Updated user interface for apply roles to organisation chart memberships of a user (as of 11/12):

Back to Users	Roles	
Inas Walaa	Custom Organization Nodes Managed	
View profile Number of Logins: 119 Last Login: 11 December 2020 10:13	General Surgery Cairo University > Faculty of Medicine > Undergraduate > Year 1       Faculty of Medicine Cairo University	
Overview	Cairo University	
Tags		
Audit log		
Email Change		
Password Change		
Password Reset		
Expiry		

Updated user interface for apply roles to organisation chart node (as of 11/12):

Search site Q	🏢 Apps  🤌 Dr Heba Wafaa 🔹 🧟	العربي
Grganizations		
Ministry of Higher Education > Cairo University		
Cairo University Nodes Members Permissions Reports	Imports	
Permissions	+ Add Permissi	ions
Assignments	08/12/2020 15:09 -	•



#### Updated user interface for permissions matrix to apply to a role (as of 11/12):

ne			Editor	type	
			Visu	al	
Permissions					
	Read	Write	Delete	Admin	
🖨 Articles					
Z Assignments		-	-	-	
Classes					
Courses		0		0	
Conversations				-	
III Events					
* Networks					
III News					
Grganizations					
🚔 People					
Playlists	2				
i → Reports					
Repository	•				
P Rewards					
Tasks					





# 2- User management (item 7-17)

- a. Requirements:
  - i. Each user view his own courses only, not courses related to other faculties/ universities.
  - *ii. Privileges should be on the system level, but customizing/ overriding it for specific user is the only modification occur on user level.*
  - iii. Allow faculty admin to upload students using template file, assigning them to their course/ group automatically, as a pre-defined variables in the template sheet.
  - b. Sample:
  - *i.* Student in faculty no.1, universities no.1 has no access to courses related to the other faculties/ universities.
  - ii. student groups is used within the same course, but students divided into more than one section, each section have its own activities, and students from the first group have no idea about what happens in the other groups.

#### CDSM Response 16/11

CDSM will support these requirements by using its "Content Folder" system to set up a structure that allows the relevant courses to be accessed by the appropriate faculties/universities. This will also include the ability to upload/import students via a predefined template which assigns them to the appropriate courses/groups.

Content Folders can be created per tenant. They are a mechanism for providing an audience-based control for content created in the system.

Content Folders	+ Add content folder
	Q
All Events Resources Courses	
Name	Date Created
Courses Resources	Events 07/08/2020 - 07:50

Example of a content folder

Courses are "published" to a single Content Folder so that they can be made visible and consumable to a specific audience. The control for who is in that audience is via the content folder.

		CUSI
<ul> <li>Back to Content folders</li> <li>Content - Logged in users</li> </ul>	Permissions Name	Manage organisational nodes Manage roles Manage users Date Modified
Overview Permissions Contents	♣ <sup>7</sup> Anonymous user ♣ <sup>4</sup> Authenticated user	Viewer 07/68/2020-07:50

Permissions applied to a content folder

The content folder supports the ability to target groups of users by:

- The whole tenant
- Their Organization Chart memberships
- The role they have in the system
- Individually

Users can be targeted in multiple ways and the most appropriate permission will apply. For example, a user could be in 'All Users' as a 'View' on the content folder, as well as included directly as 'Deny'. In this case the user would not be able to see the contents of the folder.

Users in the system when viewing courses will see those they have signed up for, and those available to them via the audiencing controls. This will prevent them seeing courses from other faculties and universities.

The user administration area supports the ability to upload new users via a CSV.

Users	5							
Users	Imports						+ Timport Users (CSV)	Clear Imports
Alias	Email	Given Names	Surname	Location	Role	Organization	Date Created	State

User import area in administration

CDSM understands the MOHE requires this capability to allow for the assigning of Courses enrolment. CDSM will support functionality during upload so that users can be assigned to Courses automatically. CDSM will support CSV upload to assign users to designated places in the Organization Chart (or group).



## 3- Organizational structure (item 18-21)

- a. Requirements:
  - *i.* Ability to upload the whole multi-level structure using a template.

#### CDSM Response 16/11

CDSM has a feature in its admin area, the Organization Chart, that allows you to easily create a new organizational structure.

E Departments		
Cairo University	266 members	• +
Postgraduates	207 members	• +
<ul> <li>02 Histology</li> </ul>	0 members	• +
02 Histology MD	0 members	• +
02 Histology MSc Part 1	1 member	• +
02 Histology MSc Part 2	0 members	• +
+ 01 Anatomy & Embryology	0 members	• +
$\oplus$ 03 Medical Biochemistry and Molecular Biology	0 members	• +

The Organization Chart

CDSM understands the MOHE needs this to be a template upload to minimise administrative overhead. CDSM will support as part of the user interface the ability to author the entire multi-level organization structure via a simple template.

#### CDSM Update 11/12:

We have added templating for the permissions in the form of export/import via files. We have also significantly improved the quality of the authoring experience in organizations with search and deep linking now supported.

We have added the ability to upload CSVs to organization nodes to import users into them. This supports adding existing or new users and works seamlessly with the user later using single sign-on from a federated source like Office 365.



#### Import users directly into a node in the Organizational Chart (as of 11/12):

Organizations								
Ministry of Higher Education > Cairo	University > Faculty of Medicine > I	Postgraduate > Year	1					
Year 1 Nodes Members Permissions Reports Imports								
Imports							+ Impo	rt Users (CSV)
Alias	Email	Given Names	Surname	Location	Role	Organization	Date Created	State
fatmh600@ekb.eg	fatmh600@ekb.eg	فاطمة	فريد	الشامية	System Administrator	عزيز - ربيع	08/12/2020 18:53	1
aayh_fuad593@ekb.eg	aayh_fuad593@ekb.eg	ĩ	فؤاد	آلاك	Department Head	إيهاب - آدم	08/12/2020 18:53	1
lma921@ekb.eg	lma921@ekb.eg	لمى	معروف	الثورة	System Administrator	فريد - إيهاب	08/12/2020 18:53	1
iynas.iyhab85@ekb.eg	iynas.iyhab85@ekb.eg	إيناس	إيهاب	بغداد	Teaching Assistant	ربيع - بلال	08/12/2020 18:53	1
arwa.aashwr324@ekb.eg	arwa.aashwr324@ekb.eg	أروى	عاشور	الرمثا	Teaching Assistant	فاروق - آدم	08/12/2020 18:53	1
shymaa_hazm722@ekb.eg	shymaa_hazm722@ekb.eg	شيماء	حازم	تلعفر	System Administrator	حسن - آدم	08/12/2020 18:53	1
lma.zyd6@ekb.eg	lma.zyd6@ekb.eg	لمى	زید	كفر قاسم	System Administrator	عقيل - أسامة	08/12/2020 18:53	1
sarh_hazm7@ekb.eg	sarh_hazm7@ekb.eg	سارة	حازم	حمص	Lecturer	عراقی - إيهاب	08/12/2020 18:53	1
jabr.slah15@ekb.eg	jabr.slah15@ekb.eg	جابر	صلاح	خور فکان	Teaching Assistant	فاروق - عراقی	08/12/2020 18:53	1
Ministry of Higher Education						R	Year 1 Rename Organization + Ar	X Q dd New Node
Year 1 In node <u>Undergraduate</u>							08/12/2020 18	:44 🔹
Year 1 In node <u>Postgraduate</u>							08/12/2020 18	:43 🔹
Year 3 In node <u>Undergraduate</u>							08/12/2020 18	:44 💌



### 4- Course management + Learning outcomes (item 22-33)

- a. Requirements:
  - *i.* Ability to upload the courses assign it to its category automatically.
  - *ii.* Ability to choose my targeted category when creating a new course using web interface, and assign it automatically into its pre-selected category.
  - iii. Ability to add/upload ILOs as variables in program level.
  - iv. Ability to add/upload ILOs as variables in course level.
  - v. Ability to map program ILOs into course ILOs.
  - vi. Ability to import/export courses as an IMS package.
  - b. Sample:
  - i. Referring to pre-defined academic structure, specially the last two nodes (program, course). both levels defined according to quality assurance with ILOs, these ILOs should be a variables in the system because it will linked to each activity in my course such as: this learning object covers the first and second ILOs, this assignment measures the third ILO, and this quiz covers each ILO with weights x, y, z,... and so on.
  - *ii.* About scorm compliance: in some point it is clarified as exists, other points clarified as under development, and I the catalog there is clear point that system is scorm compliance so clarification about this point is required.

#### CDSM Response 16/11

CDSM currently supports a robust authoring environment for Courses. Some of the functionality the MOHE requires needs to be developed over the coming weeks to meet expectations.

The Courses authoring environment currently supports selection of categories and automatic assignment of them via the authoring tool.

CDSM will undertake work to extend this area to include the ability to select ILOs that are relevant to the Course.

#### CDSM Update 11/12:

CDSM have spent a considerable amount of time analysing the requirements from the MOHE around this area. We feel this is an area where your kind feedback is required to achieve the best solution possible for Egyptian stakeholders.

Our team has designed a series of prototypes to show how learning objectives and frameworks can be built or imported into the system and how they can then be used within the LMS.

We will present these prototypes for your feedback during the week commencing 13/12.



لي Egypton Knowledge Bonk بينك المعرفة المصري	Search site Q	🗰 Apps	â	3 Ines Cunha 🗸
<	cy Program Gynaecology & Obstetrics Edit 06/10/2020 10:16 Privacy: Content - Logged in users			
•	Course Settings         Image: Update Classification         Image: Updat			

Example of how user can assign ILO to the Course

CDSM supports the ability to import existing Courses constructed elsewhere as IMS standards packages, specifically SCORM. These SCORM packages can then be run within various locations on Thinqi LMS.



= PNG	SoftwareTestingPNG						
Add SCORM content							
🗆 🚦 singlescobas	ic.zip	Scorm12	25/03/2020 10:55	*			
Singlescobas	ic.zip	Scorm12	25/03/2020 10:55				
Singlescobas	ic.zip	Scorm12	25/03/2020 10:55				
Singlescobas	ic.zip	Scorm12	25/03/2020 10:55				
Singlescobas	ic.zip	Scorm12	25/03/2020 09:04				
SCORM2004	BrdEdition.zip	Scorm2004	07/10/2019 15:27				
🗆 🧧 RuntimeBasi	cCalls_SCORM12.zip	Scorm12	13/06/2019 16:16				
ProddingSCC	).zip	Scorm13	13/06/2019 15:45				
				Ŧ			
	Add selected	Cancel					

Selecting SCORM content to use in the LMS

CDSM understands the MOHE requirements also need the ability to export our Playlists as IMS standard packages. CDSM are in the process of working on export of Playlists as IMS standard packages supporting xAPI. CDSM understands that the MoHE preference is to use SCORM for better interoperability support (Moodle etc) and so will divert efforts to facilitating that ahead of existing endeavours.

#### CDSM Update 11/12:

Full SCORM support is available now. The work for learning objectives designed above will also be able to be used when preparing and delivering SCORM content.

The work to export playlists as IMS standard packages is an ongoing work package that is scheduled for 2021.



## 5- Learning content management (item 34-51)

- a. Requirements:
  - i. Ability to merge videos.
  - *ii. Ability to add text, narration, hyperlink.*
  - *iii. Ability to add questions within video timeline.*
  - *iv.* Ability to take an action according to question answer as a feedback (text, hyperlink,...etc)
  - v. Ability to save questions responses as a report in the main portal.
  - vi. Ability to save Learning object Logs as a report in the main portal.
  - b. Sample:
  - *i.* reply contains that required features can be available through third-party module, but without clarifying this module to be able to determine if it is acceptable or not, also time required to integrate not clear too, also to which level integration available between Thinqi and this third-party module.

#### CDSM Response 16/11

CDSM is currently evaluating external modular software plug in services to enable the editing and multimedia manipulation required. There are a number of options available to the project, but further time is required to outline this requirement as discussions are in place with 3<sup>rd</sup> party vendors regarding price and service features.

At present the options available are:

- Commercial services that are interoperable
- Open-source services that are interoperable
- Native build

As CDSM proposes to transfer code to MOHE we are aware that we will have to ultimately have to build the service that provides these functions in the LMS. Current evaluation is ongoing.

#### CDSM Update 11/12:

CDSM has evaluated a series of tool suites to enable the additional multimedia manipulation tasks described. We have found several exemplars of this and discussions continue with the vendors.

Demonstration of these tools to stakeholders will be useful to gauge the most useful aspects. These can then inform a potential native build so that the MOHE owns all the source code for these tools and there are no licensing issues.



### 6- Virtual Classroom

- a. Requirements:
  - i. Which virtual classroom module to deliver?
  - *ii.* Deep integration between virtual classroom and portal, so that I can view reports about questions and attendance as a report in the main portal.

#### CDSM Response 16/11

CDSM will provide its virtual classroom module as part of the solution.

The Thinqi virtual classroom feature will enable HOHE to host classes online with a variety of flexible tools. These include:

#### Breakout Rooms

Breakout rooms are sub-rooms used to split participants into smaller groups. These smaller groups of participants can engage one another through tools such as video and text chat, file sharing, screen sharing, and the interactive whiteboard.

#### Interactive Whiteboard

The interactive whiteboard is simple to use, with a range of tools to encourage collaboration. Each whiteboard consists of up to 50 blank slides. Permissions can be set so that either one or all learners can access the collaborative tools.

#### <u>Webinar</u>

The virtual classroom software is purpose-built for online instruction. A webinar mode can be enabled to engage large audiences of learners effectively online. Learner focus can be maintained using the following features:

- High quality, real-time audio, and video
- File sharing, including presentations, PDFs, and video for synchronous viewing
- Quizzes, enabling live assessment on large audiences of learners in real time.

#### File storage

Any files uploaded to virtual classrooms are encrypted, secure and available when needed. Supported file types include:

- Presentations PPT, PPTX
- Video MP4, MOV, AVI, WMV
- Image PDF, PNG, JPG
- Document DOC, DOCX
- Spreadsheet XLS, XLSX
- Audio MP3

#### Live Polls

Live polls are used to gain instant learner feedback. Questions can be multiple choice or open questions.



In addition to the features listed above, other virtual classroom tools include screen sharing, session recording and shared notes.

Reports are available in Thinqi LMS that provide feedback for instructors on how users have performed on quizzes and key information such as attendance and engagement.

<b>F</b> ,thi	inqi Search site q	•)		🗰 Apps  ?	🔮 🎲 Adam Irwin 👻 English 🔹
< /	K Quiz Question W	Vhere on a meander would you fir	nd a river cliff? 🔹	🛓 Get Report	Filter Set 1 All Users (1,010)
ш	<b>3</b> Users	<b>3</b> Answers	Hard 0.33 Difficulty Index	-1.00 Discrimination Index	Shared as  + Add filter set
4	Filter Set 1: All Users				
* *	<b>Correct vs Incorrect</b> A pie graph showing the percentage answers.	e of correct answers vs incorrect	Answer Distribution A radar chart showing the number of	f people who chose each answer.	
			c	в	
	All Correct   Filter	r Set 1 📕 Incorrect	A - Outside bend B - Inside bend	<b>C</b> - The centre of the channel	
	Answer Breakdown A bar graph showing the percentag	e of people that chose each answer.			

A quiz report where the instructor has drilled down into a specific question





System reports showing most active content

#### CDSM Update 11/12:

We look forward to demonstrating the virtual classroom tool further to stakeholders. We will capture the key aspects of feedback and plan any deeper integration with the core LMS that is required for reporting etc.



# 7- Educational Calendar

- a. Requirements:
  - *i.* required calendar should be fully inside the system not externally, and should display all created session/ assignment/ quiz... etc

#### CDSM Response 16/11

CDSM will facilitate this requirement by deploying an integrated calendar onto the user's workspace. This will provide the user with a personalised calendar view that keeps them up to date on all activities they need to participate in or complete within the system.

This is already a near-term roadmap item for the LMS based on our work with the Medical Faculties in Egypt.

An existing feature of the LMS that integrates a calendar and date-based control is Events. We intend the personalized calendar to share some of the features displayed here, specifically:

- Where a calendar control for selecting the date is available then days with items on are highlighted for easy scanning across months.
- Where a list is used for items it has date boundaries inserted in line to group items by the day that they are due
- Items being shown have enough relevant information displayed to be effective to the student at communicating what they are looking for
- Items link into the relevant Course/Program/Assignment that has the deadline so it can be completed
- Items that are completed are indicated as such in the user interface, so they are not confusing to the students

#### CDSM Update 11/12:

A timetable feature has been a short-term road map item for the EKB LMS project and CDSM has now added this to the latest version of the platform. We will demonstrate this to stakeholders in the week commencing 13/12.

The timetable surfaces all of the time bound items in the LMS including:

- Events
- Assignments
- Courses

The timetable also differentiates the user's teaching tasks from learning tasks so they can easily see the context of their upcoming items.



Timetable view shown in the LMS, including differentiation between teaching tasks and learning tasks (as of 11/12):





### 8- Assignment and grading

- a. Requirements:
  - *i. inline grading for essay questions should be included in the system using a pre-defined rubric- matrix*
  - ii. parallel grading should be supported too
  - *iii.* Ability to map assignment with learning outcomes and display these achievements in portal reporting.

#### CDSM Response 16/11

CDSM will support inline grading for Assignments. The grading will be based on Rubrics that are created within the LMS and assigned to the Assignment, or the relevant Playlist/SCORM content that the student is responding to.

Assignments supports contributors for Assignments to share the marking workload for large distributions. CDSM will support the parallel grading system for these contributors to facilitate the MOHE requirements. CDSM will support multiple reconcilers and graders. These individuals will be selected by the Assignment creator, or appropriate administrator user.

CDSM will support the ability to assign Learning Outcomes to an Assignment and all Learning Outcome achievements will be available via the portal Reports features.

Egypton Knowledge Bank	arch site Q	Арр	s 🌲	es Cunha 👻
	Rubric Scale			
			+	
	Title			
	Shows respect and behaves in accordance with Good Medical Practice			
Inactive Users	Criterion			
	Patient's history			
Login Frequency	Descriptor for (Freenting)			
	Descriptor for Exceptional			
	Focuses questioning to establish working diagnosis and able to relate to relevant examination, investigation and management plan in most acute and common chronic conditions in almost any environment.			
Competency Framework	Descriptor for 'Average'			
Rubrics Bank	Demonstrates ability to rapidly obtain relevant history in context of severely ill patients and/or in an emergency situation.			
	Descriptor for 'Below Average'			
	Demonstrates ability to obtain relevant focussed clinical history in the context of limited time. e.g. outpatients consultation onward referral			
Resource Approval	Descriptor for 'Poor'			
Archived Resources	Obtains records and presents accurate clinical history relevant to the clinical presentation.			
Bulk Actions	Save			
Alert Types				
Bahlahlan				

Example of authoring a rubric scale

cdsm	
Uddill	

Marking Scheme (Optional)	Mark Scheme				
Choose a mark scheme.	No Scheme  v or Add a new mark scheme				
Leaning Outcomes and Rubrics	Learning Outcomes				
Add a rubric for assessing this assignment. This will allow you to assess your students performance in more detail.	Medical Competencies > Basic Clinical Competencies > History Taking         Comprehend the importance of different elements of history				
	Add a Learning Outcome				
Certification (Optional)	Choose certificate template				
When the assignment is completed by a user					

Example of selecting a learning outcome for an assignment

#### CDSM Update 11/12:

As part of our design work around learning objectives, CDSM has also done an in-depth assessment around rubrics and how these can be fed into key LMS workflows and how they tie to learning objectives.

Our team has designed a series of prototypes to show how learning objectives and frameworks can be built or imported into the system and how they can then be used within the LMS.

We will present these prototypes for your feedback during the week commencing 13/12.



### 9- Quiz management

- a. Requirements:
  - *i. inline grading for essay questions should be included in the system using a pre-defined rubric- matrix*
  - *ii. ability to create a quiz using a pre-defined variables such as learning outcomes required to cover and required level of quiz difficulty, ...etc*
  - *iii.* Ability to map quiz with learning outcomes and display these achievements in portal reporting.
  - iv. Ability to use all required question types.
  - b. Sample:
  - *i.* Quiz bowl questions: which presenting students with the answer and asking them to provide the question.
  - *ii.* Calculated formula question: which presenting student with mathematical equation and ask him to calculate result, result is a variable depending variables of input, which all variables are auto-generated.

#### CDSM Response 16/11

CDSM supports a robust authoring environment for Playlists and Question Banks.

Quizzes, and questions can be authored and graded in other features. Question Banks support creating quizzes from predefined variables using all available question types. CDSM will support new question types for Quiz Bowl and Calculated Formula.

CDSM will support selection of Rubrics for questions authored as part of a Playlist/Question Bank. CDSM will also support the assignment of one or more Learning Outcomes to a Playlist/Question Bank so that these achievements can be displayed in portal reporting features.

#### CDSM Update 11/12:

Related to the point above, we have designed how rubrics can be authored and then used in key workflows such as assignments, playlists, and question banks. The prototypes of these designs will be presented to stakeholders for feedback.



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Ŀ	<b>3</b> Users	<b>3</b> Answers	Hard 0.33 Difficulty Index	Shared as  + Add filter set		
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\$	<b>Correct vs Incorrect</b> A pie graph showing the percentage answers.	e of correct answers vs incorrect	Answer Distribution A radar chart showing the numbe			
			c			
	All Correct   Filter	r Set 1 🔲 Incorrect	A - Outside bend B - Inside ben	<b>C</b> - The centre of the channel		
	Answer Breakdown A bar graph showing the percentag	e of people that chose each answer.				

A quiz report where the instructor has drilled down into a specific question



## 10- Communication (discussion board + messaging + chat)

- a. Requirements:
  - i. Full discussion board module
  - b. Sample:
  - *i.* All of them clarified in Thinqi as a single item "communication" which contains email, face-to-face, phone, Skype. These items rarely mapped to cover messaging and chat but not discussion board at all, so clarification required about that.

#### CDSM Response 16/11

CDSM's LMS has a range of communications tools to support its users. The platform can offer integration with popular third party communications tools as well as offering its own built in functions.

There are fully functioning forum boards which allow multiple threads/discussions as well as the ability to embed multimedia. The platform also has built in chat/messaging features to allow users to communicate with each other directly through the platform.



Example of chat/messaging functionality in the LMS



## 11- Communication (social media)

- a. Requirements:
  - *i.* Ability to integrate with social media.

#### CDSM Response 16/11

CDSM currently integrates with all the popular social media channels and the platform generates the appropriate share links to allow users to create posts from within the applications.

Within supported features of the platform there is a 'share' button that when enabled at a system level allows for users to share the current Courses, Event, Assignment etc to a range of social media channels.

			×		
ver	9	•	in		n <mark>d Time</mark> , 17 Nove
	Twitter	Facebook	LinkedIn	Email	<u>Add to G</u> pload iCa
	Share Link				<u>modu ica</u>
	https://swebb.t	hinqi-staging.co.u	k/events/866298ea-40	Сору	on .
					<u>ich Thingi</u>
				Or	ganised by

Example of social media integration in the LMS



#### 12- Customization and Branding

- a. Requirements:
  - *i.* Ability to have multitenant, each have its own design, and allow admin for this tenant to customize its design freely.

#### CDSM Response 16/11

CDSM currently supports a wide range of theming controls that are available to the administrative team for a given tenant.

Controls are available for the following configurable elements on the LMS:

- Text colour
- Font
- Text size
- Contrast
- Image for logo in top left
- Colours for header bar
- Homepage images and colours
- Email image and 'sent by' name
- Favlcon selection for the website/tenant
- Control for feature icons and default colours

< Back to Themes	Core
thinqi-platform-	
accessible	Theme Name
Core	mis will be used to identify your meme
Header	thingi-platform-accessible
Login	
Mail	Accent Colour 🔺 This will be used when we want to draw your attention to something e.g. buttons. links & tabs
Favicon	
Apps	Arcent Hover Colour
Chho Chho	This is the colour you will see when you hover an interactive element that uses the accent colour
Set as current theme	
	Accent Contrast Colour
	This will be used when we need something to stand out against the accent colour e.g. the text on a button
	Convolution Accord Colour
	Complimentary Accent Colour This will be used as a secondary accent colour when we need something to stand out alongside the accent colour
	Font Family
	Inis will be the font used in this theme
	Noto Sans, Noto Sans Arabic
	Font Size
	This will set the default font size across the site
	18
	Font Colour
	This will set the default font colour
	Font Contrast The contrast percentage used for the foot. The higher the percentage, the greater the contrast
	100%
	•
	Save
	Save

Example of administrator customising the theme of the LMS



### 13- Notification Management:

- a. Requirements:
  - *i.* Ability to have a notification for each interactive event in the portal.

#### CDSM Response 16/11

CDSM currently supports a notification system in the LMS. Each interactive event in the portal can generate a notification for students/users alike when they are in some way associated with it. For example, they are enrolled on a Course.



Example of notifications in the LMS

The types of interactive events which trigger notifications can be managed at a system level by administrators. Similar controls are then available to students/users to further personalize their notifications.



#### Notifications

Use the settings below to configure the default notification settings for your domain.

Announcements		^
	News Feed	Notifications
Created		
Articles		^
	News Feed	Notifications
Created		
📔 Files		^
	News Feed	Notifications
File Created		-
Z Assignments		^
	News Feed	Notifications
Available	-	
Started		-
Submitted	-	
Completed		-
Badges		^
	News Feed	Notifications
Earned		

Administrator customising notifications in the LMS



## 14- Language and Localization

- a. Requirements:
- *i.* System should support Multilanguage UI (at least Arabic/ English) not only Multilanguage data entry.
- *ii.* Ability to add other languages and apply it to the UI language.

#### CDSM Response 16/11

CDSM supports a full multilingual UI and multilanguage data entry system. Arabic and English support is fully available on EKB LMS, and Study platforms to view. Additional languages can be added to the system once translations are made.

These languages will be included as part of the UI as you can see on Study and in the provided screenshot which includes other language variations.



Example of a multilingual user interface



<	English 🔻
	Current Language(s)
	Add a Language
	+ English
	+ português
	العربية +
Softwar	+ 日本語
Last save	d: a few seconds ago

Example of multilingual data entry



# 15- Mobile App and OS Agnostic

- a. Requirements:
  - *i.* Required time to develop mobile app needs clarification.

#### CDSM Response 16/11

CDSM are currently developing a Thinqi Companion mobile application for iOS and Android devices. This is planned for an end of Q1 2021 release.

The application will allow users to take their learning with them everywhere. It will allow every user to stay up to date with the latest events and important announcements from their chosen communities in the platform, check their progress through courses and assignments and to search for and review the rich learning content in the content libraries.

The application will alleviate issues such as poor bandwidth and mobile data costs by reducing the amount of data required to access learning materials by allowing users to cache content on their device for review while offline.

The mobile app will allow users to:

- Log into their university/faculty LMS tenant using the appropriate identity provider for that institution
- Browse or search for useful content in the digital library
- Access learning resources from the library and cache them on their device for offline access
- Browse their chosen user communities, classes and networks
- Receive push notifications about important events happening in the LMS (user requesting to join a class, assignment being assigned to a user etc.) so they never miss important activity
- Conduct common administrative tasks such as accepting users into classes or reviewing assignments
- Complete assessments while offline, where appropriate
- Gather evidence through by uploading documents from the device or taking pictures with the mobile camera

All user activity while offline is recorded locally and then uploaded to the platform when reconnecting to the network, so a full record of their activity is maintained in the xAPI Learner Record Store.





Example of a playlist being consumed in the mobile app



#### CDSM Update 11/12:

A mobile app for the LMS has been a key roadmap item for CDSM that we have been designing and putting the required infrastructure in place for recently. For the MOHE we have prepared a version 1 beta to demonstrate the capability of the app.

A key feature of the app includes making it easier for users to access their learning materials, especially if they are offline. This is useful for rural areas where students may have access to good internet coverage in their university but not in their homes.

The beta app we will be demonstrated to stakeholders on the week commencing 13/12 and will show:

- Authentication component built as a single app download but can access any tenant
- Integrated calendar view to show up to date items for courses and assignments
- Mobile app view of the digital repository
- File viewers built and implemented so resources can be viewed within the app
- New offline functionality allows users to download resources within the app that can be viewed later if no connection is available
- File management options to allow users to delete offline files
- Search functionality

Pending approval from stakeholders, CDSM can begin the process of making this available in the Apple and Google app stores. Regular updates will be made available to users to enable app views of additional features such as playlists, courses, and assignments.



### 16- Gamification

- a. Requirements:
  - *i.* Ability to apply point for each action made be student.
  - *ii. Ability to customize point rules.*

#### CDSM Response 16/11

All significant learning actions in the LMS are captured as Experience API (xAPI) statements which store metadata in a consistent structured format that is interoperable with any xAPI compliant Learner Record Store (LRS).

These xAPI statements contribute to reward and recognition across the LMS in the form of:

- Awarding badges
- Reporting
- Learner activity analysis
- Point accumulation

CDSM proposes to extend the xAPI statements in the following way:

- Add additional xAPI statements to cover any key interactions not already covered by this functionality
- Allow for point accumulation to be customized by administrators

#### CDSM Update 11/12:

Gamification is an area like learning objectives that we have spent a considerable amount of design and analysis time but wish to gather stakeholder feedback to confirm we have the best solution for Egyptian users before building begins.

We have prepared a series of prototypes to demonstrate the proposed student and teacher views of leader board which shows points gathered from the user's interactions in an assignment.

These points are gathered from the xAPI statements generated by the user's activity and measured against the rules set out by the teacher for their assignment.

We will present these prototypes to stakeholders for feedback in the week commencing 13/12.



Example of the proposed leader board view for enabling gamification in the LMS (as of 11/12):

Egyphon Kn ق المصري	nowledge B	kank Liy	88 Search s	ite Q						🗰 Apps 🌲	🔒 Bassem Ali 🝷
<	Assi	ignment	Good Medical Practic	e Select a activity (4) •					⊥ Get Report	Filters	
										All Users (0)	•
al		<b>120</b> Avg	J. Points	40 Participants	<b>75%</b> Avg. Sco	ore	<b>0</b> B	adges Earn	ed	Share link	•
. 🕈		Rank	Participant		Points	Score	Activities	Last 24h	Feedback		
4		(1st	😻 Habiba Galal		280 points	90%	4/4	↑2	<b>Q</b> 1		
*		2nd	Bilal Mostafa		275 points	85%	4/4	↑2	<b>9</b> 1		
*		3rd	Salma Tamer		270 points	80%	4/4	↑ 2	<b>Q</b> 1		
		4th	🐒 Khalil Malek		265 points	85%	4/4	↑ 2	<b>9</b> 1		
		5th	Marim Samir		260 points	100%	3/4	↑ 3	۰ 🗨		
		6th	Min Fatin		265 points	85%	4/4	↑ 2	<b>9</b> 1		


# 17- Dashboard /Analysis /Report Management

- a. Requirements:
  - *i.* Plan is not clear enough will these required items be developed or an integration with a consistent module doing all these required items will be done

#### CDSM Response 16/11

All data is stored in the Thinqi data lake that allows reports to be generated using any common Business Intelligence tool such as PowerBI or Tableau. We can also create custom reports as required and embed these in the platform using an integration with AWS Quicksight. These will be tailored to meeting the MOHE's requirements as they emerge during the project.

The data lake stores the data generated by all the tenants in the LMS. It is stored as both structured and unstructured data. This offline data store allows for Business Intelligence tools such as performing rich analysis and complex queries without impacting the performance of the live platforms and its mission-critical data layer.

Data is stored in such a way as to allow for deep analysis without having to define the desired analysis ahead of time.

Each tenant's data will be logically separated allowing us to provide access to the data for analysis securely to each individual tenant's administrative team. We can also analyse data from across all tenants to provide unparalleled insight into the entire estate.

Cross-institution reports will be made available to MOHE through custom reports powered by the data lake. This will provide key performance indicators (KPIs) for monitoring purposes such as usage per publisher, institution and faculty.



Example custom report created to show usage of the LMS geographically across Wales, UK using the Thinqi data lake



#### CDSM Update 11/12:

CDSM has been working on their v3 reporting framework for the LMS during Q4 2020 and has accelerated this for the MOHE. During the week commencing 13/12, we will demonstrate this to stakeholders.

The latest reporting framework in the LMS allows us to add reports in a modular fashion to address requirements from our stakeholders. Any data stored in the LMS data lake can be mined and pulled into reports.

As standard the reports include multiple view types per graphic (line, pie, bar etc.) and CSV download.

The LMS will come with a standard set of default reports and we can work with stakeholders to design new reports on a MOHE, university or faculty basis. As the framework is extensible and modular, as new reports are added for one set of stakeholders we can make appropriately scoped versions these available for all tenants.

User logins over time		1 Dec 2020 - 12 Dec 2020
er logins over time aggregated login count that users have done grouped by date.	Display Line • Options :	Filter Set 1 Undergraduate (0)
0-12-01 - 2020-12-12		+ Add filter set
Riter set 1: Undergraduate		
160		
140		
140		
140 120 100		
140 120 100 80		
140		
140 120 100 80 60 40		

Example of general analytics in the new reporting framework (as of 11/12):



#### Example of resource analytics in the new reporting framework (as of 11/12):

And days and the second	Q			👥 App	os 🤌 🔇 Dr Heba Wafaa 🗸 ايرييق
< Resource summary					1 Dec 2020 - 12 Dec 2020 •
Resource view summary The set summary statistics indicating performance of this r	resource for the past 12 months. Ranking based	t on all resources performance over the sa	me period.		Filter Set 1
	Filter set 1: All users	Filter set 1: All users	Filter set 1: All use	rs	All Users (639)
	<b>0</b> Standard Deviation	118 Average per month	118 Minimu month	ım in a	+ Add filter set
1 December 2020 - 12 December 2020	Filter set 1: All users	Filter set 1: All users			
	118 Maximum in a month	4 Rank			
Resource views over time The view count that this resource has received grouped by	date.		Display Line 👻	Options :	
2020-12-01 - 2020-12-12					
Filter set 1: All users					
10 9 8 7		$ \land \land \land$	$ \land \land$		

### Example of learner analytics in the new reporting framework (as of 11/12):

Quiz											Enable date range
er scores brea each user who ha	Ikdown for this a s completed this activity	<b>ctivity</b> y, what was their	average score, z-score	e and ranking.					Of	otions :	Filter Set 1 All Users (639)
lame	Givenname(s)	Surname	Organization	Location	Average score	Minimum score	Maximum score	Standard deviation	Z Score	Ranking	+ Add filter set
dministrator	Administrator	User	n/a	Cairo	100	100	100		2.414	1	
areth homas	Gareth	Thomas	CDSM	Swansea	75	75	75	-	1.393	2	
arren /allace	Darren	Wallace	CDSM	Swansea	50	50	50	-	0.372	3	
lick Davies	Nick	Davies	CDSM	Swansea	50	50	50		0.372	3	
ik Goile	Nik	Goile	CDSM	Swansea	25	25	25		-0.65	4	
andrew wans	Andrew	Evans	CDSM	Swansea	25	25	25	-	-0.65	4	
abo thingi unt co ul	6										



## Ability to Integrate between Thinqi and Moodle

Requirements:

- Display content published on Thinqi using Moodle.

- Use Thinqi authoring tool inside Moodle and create content using it, displaying this content on Thinqi too.

- Use Thingi virtual classroom inside Moodle.

- Each logs happens inside learning object imported from Thinqi or created using Thinqi authoring tool inside Moodle should appear in Moodle reporting.

- Each response to questions inside learning object imported from Thinqi or created using Thinqi authoring tool inside Moodle should appear in Moodle reporting.

- Each logs happens inside Thinqi virtual classroom should appear in Moodle reporting.

- Each response to questions inside Thinqi virtual classroom should appear in Moodle reporting.

#### CDSM Response 16/11

CDSM proposes to extend Thinqi core features to allow them to be consumed in Moodle via a Learning Tools Interoperability (LTI) integration.

Thinqi will publish each core feature as an LTI tool which may then be consumed in any LTI compliant platform, including Moodle. The LTI standard handles secure authentication, role and permission scoping and also manages reporting requirements between the two platforms.

Thinqi core features to support LTI publishing include the Digital Library, Assignments, Study Guides, Playlists, Reporting and Analytic Tools and Networks.

Support for Thinqi features as LTI tools will be released in phases with a planned completion date for September 2021. We will prioritise LTI feature releases to ensure Thinqi features are available to Moodle platform users as soon as possible and to maximise engagement with Moodle users by April 2021.

The Thinqi LTI features will also publish reporting data to the consuming Moodle platforms via the LTI standard meaning the outcomes of any activity will be available for reporting directly in the Moodle platform as well as rich analytic tools being made available in the Thinqi platform.

**Note:** For the requirements listed above we will support as much reporting back into Moodle as it supports via the LTI standard. We are not responsible for extending Moodle where these requirements currently do not exist in its feature set.



#### CDSM Update 11/12:

CDSM have continued to design the implementation the LMS as a tool provider as well as a tool consumer. This work is scheduled for 2021.

The data flow for a Moodle user consuming LMS apps via LTI integration is as follows:





# تحديث مرفق (8) المقدم بتاريخ 17 نوفمبر 2020

مرفق 2

# Thinqi Medical LMS Stats 03/12/2020

احدث احصائيات الاستخدام لكليات الطب من الجامعات المختلفة (3 ديسمبر 2020)





## Page Views per University

Egyptian Knowledge Bank بنك المعرفة المصري

Period	Ain Shams	Al Azhar	Alexandria	Assiut	Cairo	Delta	Galala	Helwan	Kafr El- Sheikh	Mansoura	Menoufia	MMA	South Valley	Suez	Zagazig
Sep-19	453	152	9	327	136			162		17					357,098
Oct-19	703	505	64	308	56			305		50					631,839
Nov-19	121	12,755	134	70	33			1,473		155					163,646
Dec-19	38	8,588	1	82	-			46		134					90,842
3 Jan to 9 Jan	5	105	54	12	2			12		5					4,620
10 Jan to 16 Jan	15	42	-	8	-			15		-					2,864
17 Jan to 23 Jan	-	240	-	9	2			5		-					3,932
24 Jan to 30 Jan	-	176	-	5	-			4		1					2,786
31 Jan to 6 Feb	-	155	-	8	-			-		-					5,974
7 Feb to 13 Feb	2	133	-	9	-			2		-					13,953
14 Feb to 20 Feb	62	115	-	5	-			1		-					19,681
15 Feb to 27 Feb	-	53	-	1	-			1		-					73,942
28 Feb to 5 Mar	3	580	4	2	1			123		-					59,326
6 Mar to 12 Mar	28	990	17	23	17			364		18					26,316
13 Mar to 19 Mar	-	36	-	-	-			12		-					18,151
20 Mar to 26 Mar	4	3,717	-	1	53			6,088		160					62,851
27 Mar to 2 Apr	1	1,227	-	-	243			2,569		64					163,509
3 Apr to 9 Apr	-	421	-	-	588			687		-					256,614
10 Apr to 16 Apr	168	704	-	1	200			5,583		61					112,984
17 Apr to 23 Apr	-	434	-	-	243			5,563		-					88,079
24 Apr to 30 Apr	48	184	41	37	191			2,483		23					42,461
1 May to 7 May	3	183	-	-	531			454	7	-	19			8	94,032
8 May to 14 May	21	56	-	-	311			515	5	-	4			3	68,403
15 May 21 May	19	90	3	4	461			1,547	3	6	3			10	25,801
22 May to 28 May	7	52	5	6	150			1,196	4	6	5			18	14,421
29 May to 4 June	-	19	-	-	209			1,456	-	-	-			34	63,692
5 June to 11 June	16	9	-	-	924			441	-	1	-			22	46,363
12 June to 18 June	-	49	-	-	937			152	-	-	-			307	46,894
19 June 25 June	-	56	-	-	1,711			112	34	1	-			5	17,022
26 June to 2 July	25	182	7	8	3,009			3,017	7	7	7			1,169	131,127
3 July to 9 July	25	92	17	23	3,395			4,123	20	20	20			1,025	14,142
10 July to 16 July	17	30	8	9	3,196			8,884	44	10	12			301	24,681





## Page Views per University

Egyptian Knowledge Bank بنك المعرفة المصري

Period	Ain Shams	Al Azhar	Alexandria	Assiut	Cairo	Delta	Galala	Helwan	Kafr El- Sheikh	Mansoura	Menoufia	ММА	South Valley	Suez	Zagazig
17 July to 23 July	1	9	-	-	3,066			4,983	2	1	21			640	19,939
24 July to 30 July	2	51	1	1	4,072			4,494	-	-	50			197	10,672
31 July to 6 Aug	1	4	-	-	1,113			2,102	5	-	778			218	13,979
7 Aug to 13 Aug	2	34	-	-	1,499			5,449	28		419			918	13,140
14 Aug to 20 Aug	-	-	-	-	949			2,041	7	1	1,473		537	1,187	12,641
21 Aug to 27 Aug	-	23	-	-	2,249			2,569	-	-	1,291		648	77	13,893
28 Aug to 3 Sep	1	17	-	-	1,571			7,264	-	-	3,676		1,513	259	12,880
4 Sep to 10 Sep	2	5	-	-	2,555			4,602	1	-	3,788		80,408	153	8,446
11 Sep to 17 Sep	62	162	58	67	7,157			4,003	54	30	1,783		47,077	550	5,955
18 Sep to 24 Sep	9	71	6	8	9,432			1,858	6	9	17,167		17,811	1,470	38,680
25 Sep to 1 Oct	1	514	-	-	12,837			1,131	1,425	2	11,396		20,682	1,827	28,458
2 Oct to 8 Oct	30	193	-	-	11,883	97	88	820	1,044		146,693	225	66,714	3,274	27,847
9 Oct to 15 Oct	32	56	26	23	5,828	42	17	2,772	317	20	444,084	16	120,289	129	26,404
16 Oct to 22 Oct	35	165	13	20	5,513	27	17	15,986	25,585	13	400,320	18	244,345	312	106,669
23 Oct to 29 Oct	8	25	5	4	5,238	4	1	355,272	6,141	6	257,339	2	178,860	106	47,197
30 Oct to 5 Nov	1	7	-	-	8,291	32	-	393,915	5,883	-	207,761		120,817	9	28,311
6 Nov to 12 Nov	-	7	-	-	52,104	67	64	356,048	5,043	-	271,775	129	97,332	18	50,546
13 Nov to 19 Nov	14	44	1	1	56,286	34	27	412,478	5,057	2	286,753	35	90,234	52	21,519
20 Nov to 26 Nov	25	49	39	69	28,319	15	13	378,246	5,277	26	264,317	24	77,416	13	29,341
27 Nov to Dec 3	41	30	9	9	20,826	26	13	291,518	1,850	9	205,512	17	53,113	9	14,876
Total	2,051	33,596	522	1,160	257,387	344	240	2,294,946	57,849	858	2,526,466	466	1,217,796	14,320	3,279,439
	Ain Shams	Al Azhar	Alexandria	Assiut	Cairo	Delta	Galala	Helwan	Kafr El- Sheikh	Mansoura	Menoufia	MMA	South Valley	Suez	Zagazig
Total I	Page Views =	9,687,440													



مرفق 3

# Postgraduate EKB Learning Management System Report

تقرير جامعة القاهرة كلية الطب قسم الدراسات العليا

عناية أ.د. نيفين سليمان نائب عميد كلية الطب- قسم الدر اسات العليا









#### Kasr Alainy Medical College Postgraduate EKB Learning Management System:

The EKB LMS was introduced to Cairo University Postgraduates in March 2020 during a meeting with Dr. Neveen Soliman, Vice Dean Higher Education at her office in Cairo university, we immediately started to draw a plan to implement the rich platform to include the valuable learning materials created by the esteemed doctors in the Postgraduates section as well as introducing the link to EKB contents through the LMS features to create an easy way for doctors to collect and create content from different platforms through one educational tool. A dedicated tenant for Kasr Al-Ainy Faculty of Medicine was created under the name https://cairomed.ekb.eg.

#### LMS Orientation and Training and Follow up:



More than 40 sessions were held on weekly basis and sometimes two times a week as well as messaging through WhatsApp and emails during the week with the esteemed doctors to train on the various features available with the EKB LMS system as well as following up with the doctors on their journey in the LMS, giving some best practices and learning from the doctors' experience in content dissemination to achieve the goal of the LMS.









A Digital Library was created in the EKB LMS following the standards assigned by Kasr Alainy Faculty of Medicine to allow collaboration between doctors in the different fields and allowing efficient content creation that allows doctors to benefit from each other's experience while preserving the copyright of the needed content. This would benefit the students to study from comprehensive content covering all the aspects needed for their postgraduate education.

The system was updated during the course of the training to make it as easy as possible for doctors to upload and allocate their content in the Digital Library and Learning Resources (Study Guide) as well as some minor updates that would help students better understand the flow in the system..

Training and Follow up are still undergoing through online sessions and mobile messaging to satisfy the doctors requests in using the EKB LMS.

#### **Resources created in the EKB LMS:**

#### 1- Digital Library:

About 1844 resources were created and published in the EKB LMS Digital Library for Kasr Al-Ainy by its esteemed doctors.



01 Anatomy & Embryology(1)
02 Histology(78)
04 Physiology Medical(31)
05 Medical Parasitology(24)
06 Medical Microbiology and Immunology(53)
07 Medical Pharmacology(1)
08 Pathology(25)
09 Community Medicine(22)
10 Forensic Medicine And Clinical Toxicology(14)
13 Pediatrics(55)
15 Dermatology(271)









16 Neurology(73)
18 Endemic Medicine(14)
20 Rheumatology and Rehabilitation(26)
21 Occupational and Environmental Medicine(18)
22 Clinical And Chemical Pathology(146)
23 Anesthesia, Surgical ICU and Pain Management(1)
24 Diagnostic and Interventional Radiology(34)
25 Oncology and Nuclear Medicine(2)
26 Critical Care Medicine(137)
27 Family Medicine(17)
29 Ophthalmology(4)
30 Otorhinolaryngology(21)
31 Urology(32)

35 Andrology, Sexual Medicine and STDs(61)



**y** of

cal Care Me





- 2- Learning Resources (Former Study Guide): (Last updated 1st Oct. 2020)
- About 80 Learning Resources created so far and their role is to guide students through their learning journey and organize the content per lectures or sessions for the Msc Part 1, Msc Part 2, and MD.











3- Groups



#### A- Classes:

Around 100 classes created either to learn or for the actual classes

- 1- LMS training class Soha
- 2- Staff Round Cases
- 3- MD candidates
- 4- Clinical Skills
- 5- CTS MD
- 6- CTS Masters 2nd part
- 7- CTS Masters 1st part
- 8- Radiation 1st part
- 9- Med 1-2
- 10- Gastroenterology
- 11- 22- Clinical and Chemical Pathology- Msc 1st\_Hematology
- 12- 22- Clinical and Chemical Pathology- Msc 2nd\_Hematology
- 13- 22-Clinical and Chemical Pathology Msc 1st part Clinical Chemistry
- 14- Hepatology
- 15- Neurophysiology MD
- 16- Neurophysiology Msc second part
- 17- Postgraduate E-learning committee Internal Medicine
- 18- Master F and T class
- 19- 2.8. Protein losing enteropathy
- 20- Nutrition in liver disorders
- 21- 2.15. Maldigestion Enteric Bacterial flora and Bacterial overgrowth
- 22- 2.19. Intestinal protozoa and worms
- 23- 2.17. Whipples disease and tropical malabsorption and tropical diarrhea
- 24- 2.10. Vascular lesions of the GIT
- 25- 2.6. Nutrition in GI disorders
- 26- Colonic polyps
- 27- 2.14. chronic pancreatitis
- 28- 2.11. Gastrointestinal and hepatic disorders with pregnancy





# 29- 2.27. COMPLEMENTARY AND ALTERNATIVE MEDICINE FOR C HRONIC L IVER GASTROINTESTINAL DISORDERS

- 30- 2.24. Acute Colonic Pseudo-obstruction Syndrome
- 31- 2.7. Eosinophilic disorders of GI tract
- 32- 2.1. Abdominal pain
- 33- Forensic and toxicology MD 2
- 34- Genotoxicity

Egyptian Knowledge Bank

ينك المعرفة المصرى

- 35- Occupational Mutagenesis and Carcinogenesis
- 36- Nik test class
- 37- Biological Monitoring and Exposure Standards 1st part master
- 38- Occupational Hygiene Principles 1st part master
- 39- Pathology MD
- 40- Pathology Master Degree Second Part
- 41- Pathology Master Degree First Part
- 42- Urology Master Part 2
- 43- occupational obstructive lung disorsders
- 44- 22- Clinical and Chemical Pathology MD Special Clinical Chemistry
- 45- 22- Clinical And Chemical Pathology MD General
- 46- 27-Family Medicine MD
- 47- 27-Family Medicine MSc Part 2
- 48- Neurology MD
- 49- Neurology Msc 2nd Part
- 50- Neurophysiology Msc first part
- 51- Neurology Msc 1st Part
- 52- Asbestos related diseases and Mesothelioma
- 53- Basic principles of General toxicology
- 54- Master Degree Second part Pulmonary pathophysiology
- 55- master degree first part- basic pathology
- 56- 1.6. Anatomy of Liver
- 57- 2.12. GERD
- 58- 27-Family Medicine MSc Part 1
- 59- 3.4. Respiratory Infections
- 60- 3.3. Infections encountered in the emergency ward
- 61- 3.9. Parasitic infection with multisystem affection
- 62- md
- 63- MD anatomy
- 64- second part master of anatomy
- 65- 27 A family medicine MSc 1st Part
- 66- 22 Clinical and Chemical Pathology MSc1
- 67- Community Medicine MD
- 68- 07 Medical Pharmacology First Part 2021 Class1









- 69- Training class
- 70- Medical Microbiology and Immunology MD
- 71- Medical Microbiology and Immunology
- 72- 15c Dermatology MD
- 73- 15b Dermatology MSc 2nd part
- 74- 15a Dermatology MSc 1st part
- 75- Class 04 C MD
- 76- Class 04 B 2nd part Msc
- 77- Class 04 A 1st part Msc
- 78- 1.14. Liver Parasitic diseases
- 79- 10A
- 80- 31-Urology Msc 2nd part Urol 800 Msc
- 81- 24 C MD
- 82- 24 B 2nd part
- 83- 24 A 1st part
- 84- 1.8. Metabolic Diseases in Liver
- 85- 1.27. Liver in systemic diseases
- 86- 1.13. Hepatitis Caused by Other Viruses
- 87- 1.22. Acute Liver Failure
- 88- 1.21. Complications of Liver Disease
- 89- 1.25. Liver Diseases with pregnancy
- 90- 3.5. Hepatic and gastrointestinal infection
- 91- 3.12. Antimicrobials
- 92- 1.11. HBV
- 93- 1.15. Vascular Diseases in Liver
- 94- Monitoring LMS progress
- 95- Histology MSC 2nd part
- 96- 22- Clinical and Chemical Pathology\_MD\_ Hematology
- 97- 1.28. Liver Transplantation
- 98- 1.12. HCV
- 99- 1.16. ALD, NAFLD
- 100- 1.26. Cholestatic Liver Diseases
- 101- 1.27. Sepsis and liver
- 102- Elective coarses
- 103- 1.13. HEV
- 104- 26 C- Critical Care Medicine MD
- 105- 26 A- Critical Care Medicine First Part Master
- 106- C 05 Medical Parasitology MD
- 107- B 05 Medical Parasitology 2nd part Master Degree
- 108- A 05 Medical Parasitology 1st part Master Degree
- 109- 10D MD Clinical Toxicology









- 110- 27 C
- 111- 27 B
- 112- 27 A
- 113- 22-Clinical and Chemical Pathology-Msc.2 Clinical Chemistry
- 114- Histology MCS 1st part
- 115- Advanced Histology 2
- 116- 2.5. Dysphagia
- 117- 2.3. Constipation
- 118- 3.15. Hematological Infections
- 119- 10C MD Forensic and Toxicology
- 120- 10B 2nd part Forensic and Toxicology
- 121- 10A 1st part Forensic and Toxicology
- 122- MD of Anesthesia-SICU-Pain Management ANES900
- 123- MSc of Anesthesia-SICU-Pain Management first part-ANES811
- 124- MSc of Anesthesia-SICU-Pain Management second part ANES823
- 125- Community Medicine Msc. 1st part
- 126- Post gradate pulmonary medicine course
- 127- first part of master of anatomy
- 128- First Part OEM Master Degree
- 129- Andrology MD
- 130- Andrology MSc Part 2
- 131- Community Medicine Msc. 2nd part
- 132- Andrology MSc Part 1
- 133- Histology MD
- 134- Dermatology
- 135- Infections
- 136- Post Grad Admin Training Class
- 137- 2.25. CRC
- 138- M Araby
- 139- training demo
- 140- trial
- 141- Cornea
- 142- Gastroenterology
- 143- 26 B- Critical Care Medicine Second Part Master 2020
- 144- 1st part class
- 145- Medical Microbiology and Immunology
- 146- 2.13. H Pylori
- 147- 2.2. Diarrhea
- 148- 3.17. TB
- 149- 3.2. HIV
- 150- Pregnancy









- 151- 3.13. Infection with Pregnancy
- 152- Family Medicine
- 153- Hypersensitivity module
- 154- Tumour Immunology module
- 155- Immunotherapy module
- 156- Virology Module
- 157- Autoimmune Diseases Module
- 158- Immunedeficiency module
- 159- 2.20. IBD class
- 160- Biliary Atresia
- 161- First Grade 2019

#### **B-** Professional Learning Communities (PLCs)

Around 30 PLCs were created for doctor's collaboration

- 1- Ophthalmology team
- 2- Dr Yasmin Ramadan
- 3- amira alaa
- 4- Post gradate Pulmonary medicine course
- 5- Neurology Postgraduate Committee
- 6- General Surgery
- 7- Blended Learning Shared Experience and Best Practices
- 8- Doctorate Degree in Clinical Toxicology
- 9- Master Degree in Forensic Medicine and Clinical Toxicology Second Part
- 10- Doctorate Degree in Forensic Medicine and Clinical Toxicology
- 11- Public Health
- 12- Urology Test PLC
- 13- Master Degree in Forensic Medicine and Clinical Toxicology First Part
- 14- First Part Master Degree
- 15- essay question of master and MD
- 16- Immunology
- 17- Ophthalmology MD
- 18- Scientific Activities of Department of Anesthesia, SICU and Pain Management
- 19- Anesthesia MD
- 20- Anesthesia MSc- Second Part
- 21- Epidemiology
- 22- Andrology MD
- 23- Andrology MSc
- 24- Anesthesia MSc- First Part
- 25- Family Medicine









- 26- General Surgery MSc
- 27- Andrology MSc
- 28- Anesthesia MSc- First Part
- 29- Family Medicine
- 30- General Surgery MSc

#### 4- Organization Structure

Cairo university has made a great use of the organization structure to allocate specialties and required degrees. This ensures each student can see their required courses to be more focused the subjects they study, curriculum or tasks that needs to be accomplished. About 35 main

nodes created with 3 sub-	(grant to head tag)									
nodes in each	⊕ 62 Histology									
one resulting in about 105 nodes in the organization	🛞 01 Anatomy & Embryology									
	O3 Medical Biochemistry and Molecular Biology									
	O4 Physiology Medical									
	O5 Medical Parasitology									
structure.	O6 Medical Microbiology and Immunology									
	O7 Medical Pharmacology									
	OB Pathology									
	O9 Community Medicine									
	+ 10 Forensic Medicine And Clinical Toxicology									
	🗄 11 Internal Medicine									
	13 Pediatrics									
	H Chest Medicine									
	(*) 15 Dermatology									

5- Content Folders:





Content folders available within the Thinqi platform allowed the doctors at Cairo university to publish content to a subject-specific folder matching the specialty and degree. This gave the freedom for the admins of each specialty to work freely under the department's policies (whether to be automatically published or await approvals) and assign who has the permission to view the content and get benefit from it. Content folders were connected to the Organization structure which provided these required permissions.

02 Histology MSc Part 1	Courses Events Resources 31/08/2
02 Histology MSc Part 2	Courses Events Resources 05/11/2
03 Medical Biochemistry and Molecular Biology MD	Courses Events Resources 05/11/2
03 Medical Biochemistry and Molecular Biology MSc Part 1	Courses Events Resources 05/11/2
03 Medical Biochemistry and Molecular Biology MSc Part 2	Courses Events Resources 05/11/2
04 Medical Physiology MSc part 1	Courses Events Resources 09/11/2
04 Physiology Medical MD	Courses Events Resources 05/11/2
04 Physiology Medical MSc Part 1	Courses Events Resources 05/11/2
04 Physiology Medical MSc Part 2	Courses Events Resources 05/11/2
05 Medical Parasitology MD	Courses Events Resources 05/11/2
05 Medical Parasitology MSc Part 1	Courses Events Resources 05/11/2
05 Medical Parasitology MSc Part 2	Courses Events Resources 05/11/2
06 Medical Microbiology and Immunology MD	Courses Events Resources 05/11/2
06 Medical Microbiology and Immunology MSc Part 1	Courses Events Resources 05/11/2

#### Taxonomies I Curricula Mapping

The admins at Cairo University have done an excellent job creating their curriculum. Now, when content is published it can be mapped to a range of curriculum taxonomy areas. Content can be mapped to multiple areas and across disciplines. Now, when a student is looking for content, they will only see curriculum area to which published content has been mapped and which is in a content folder to which they have view permissions. This has ensured that students only see content they are permitted to see.

#### Conclusion:

A lot of effort has been put in the development of the EKB LMS platform from the doctors in Kasr Alainy supported by the EKB team .The EKB will continue to support the initiatives of Kasr Alainy as much as possible to reach the most beneficial E-Learning process. The LMS still has some useful tools that are not used yet by the Postgraduates team and EKB Team will continue the training sessions until full utilization of the EKB LMS is reached.



# مرفق 4

# نسخة كاملة من الرد المقدم بتاريخ 17 نوفمبر 2020



17 نوفمبر 2020

الرد على استفسارات وزارة التعليم العالى و البحث العلمى المطلوبة من بنك المعرفة الرد على استفسارات وزارة التعليم العالى و البحث العلمي المصرى بتاريخ 16 نوفمبر 2020



الفهرس

ملخص الرد على الاستفسارات المطلوبة من بنك المعرفة المصرى.

- MOHE Feature descriptions\_CDSM\_16\_11\_2020
   (مرفق رقم 1) شرح للخصائص المطلوبة من قبل وزارة التعليم العالى والبحث العلمى و الرد عليها.
- 2- 22\_000\_00111\_00111 Release Schedule\_CDSM (مرفق رقم 2) الجدول الزمني لتنفيذ الخصائص المطلوبة من قبل CDSM الى وزارة التعليم العالى و البحث العلمي.
  - MOHE LMS Operational Implementation Plan\_CDSM\_16\_11\_20 -3 (مرفق رقم 3) خطة التشغيل الموضوعة لل LMS.
    - MOHE LMS Training Plan\_CDSM\_16\_11\_2020 -4 (مرفق رقم 4) خطة التدريب على النظام.
  - -5 MOHE LMS Technical Support and Security Document \_CDSM\_16\_11\_20 رفق رقم 5) خطة الدعم الفنى و تأمين النظام.
    - EKB Business Continuity and Disaster Recovery\_CDSM\_16\_11\_2020 -6 (مرفق رقم 6) نظام ادارة الكوارث.
    - THINQI LMS\_local\_Client\_List -7 (مرفق رقم 7) تفاصيل الهيئات المحلية التي تم التعامل معها لانشاء نظام ادارة التعلم.
      - 8- Medical Faculty LMS Stats\_20201112
         (مرفق رقم 8) احدث احصائيات الاستخدام لكليات الطب من الجامعات المختلفة.



# ملخص الرد على الاستفسارات المطلوبة من بنك المعرفة المصرى

مرفق لسيادتكم الاستفسارات المطلوبة كما ارسلت و الرد لكل استفسار كلاً على حدا.

السادة مسئولي بنك المعرفة المصري

تحية طيبة و بعد

فى إطار الإجتماعات بين وزارة التعليم العالى و البحث العلمى و السادة مسئولي بنك المعرفة المصرى بشأن نظام ادارة التعلم المتوفر على بنك المعرفة المصرى، نحيط سيادتكم بالنقاط المطلوب مناقشتها و استلام رد رسمى بشأنها و هى كالتالي:

 الرد على استفسارات اللجنة الفنية بشأن بعض المتطلبات الغير متوفرة حالياً في نظام ادارة التعلم ببنك المعرفة المصري (مرفق 1).

الرد:

مع كامل الاحترام الكبير لجميع الزملاء المحترمين وأعضاء اللجنة - المتطلبات التي تم تحديدها تحتاج لتمديد الوقت ليتم تطويرها بشكل سليم يتناسب مع المتطلبات و يتناسب مع الجهة المُستخدِمة لل LMS لتكون آمنة و خالية من المشاكل التقنية. تم الرد على كافة الاستفسارات و النقاط و جدولة تنفيذها تبعا لخطة زمنية تتضمن مشاركة المسئولين في متابعتها و الموافقة عليها ليتم تنفيذها بحسب الرغبات المطلوبة فنياً. الخطة كاملة مفصلة بتاريخ التنفيذ على مراحل (مرفق 2) الخطة كاملة مفصلة بتاريخ التنفيذ على مراحل (مرفق 2) تقدم MCD و CDSM 16 11 2020 V2). وتكون جزء من الملكية الفكرية التي ستمنح للوزارة كترخيص دائم للتعليم العالي في مصر. تريد CDSM تحقيق ذلك مع شركاء اكاديميين مصريين لضمان حصول وزارة التعليم العالي على الخصائص المطلوبة بشكل صحيح. ستقوم CDSM بتطوير وتقديم نماذج أولية للخصائص الرئيسية المحددة والمطلوبة للجنة الفنية الفي محيم.



2. تحديد مدى امكانية امتلاك وزارة التعليم العالى و البحث العلمى للشفرة المصدرية (Source Code) لنظام ادارة التعلم ببنك المعرفة المصرى شاملة الدليل الكامل للاستخدام و التعديل المباشر فى الشفرة المصدرية من خلال الخبراء فى وزارة التعليم العالى و البحث العلمى

## الـرد:

يحتوي LMS على بنية "LMS Ervice Oriented Architecture" (SOA) موثقة بالكامل مما يعني أن خبراء الوزارة يمكنهم تطوير وابتكار المزيد من الخصائص التي يمكن دمجها بشكل فعال في بنية LMS.

بمجرد تسليم الشفرة المصدرية ، يمكن لخبراء الوزارة التعرف على نسخة منها بعد ان يتم نشره بأمان وسيقوم مطوروا برامج CDSM بتقديم التدريب والدعم في كيفية إدارة وتطوير قاعدة الشفرة المصدرية بشكل فعال.

سيتم توثيق جميع الدورات التدريبية وتسجيلها بالكامل عندما تكون هذه الجلسات عبر الفيديو او عبر الاجتماعات باستخدام برامج التواصل عن بعد.



- تحديد كافة تفاصيل البنود المذكورة في كراسة الشروط و المواصفات و على سبيل المثال و ليس الحصر
  - خطة التشغيل:

الرد:

مرفق ملف (<u>MOHE LMS Operational Implementation Plan CDSM 16 11 20</u>) (مرفق 3) و الذى يشرح الخطة الموضوعة للبدأ باستخدام ال LMS مع العمل على تطوير الخصائص المطلوبة في نفس الوقت.

خطة التدريب لجميع مستخدمى النظام:

# الرد:

مرفق ملف (<u>MOHE LMS Training Plan CDSM 16 11 2020</u>) (مرفق 4) و الذى يشرح الخطة الكاملة لتدريب المستخدمين باستخدام Zoom او Teams او عن طريق اتاحة المدربين داخل الجامعة او الكلية. تتضمن الخطة ايضا اتاحة مدربين لكل جامعة يمتازوا بالخلفية التقنية الممتازة مع مهارات التواصل و معرفتهم باساليب العمل داخل الجامعات و الكليات حتى يتسنى اجراء محاضرات تدريبية ناجحة. الهدف تدريب حوالى 100,000 من المستخدمين المهرة ليكون بامكانهم تدريب المستخدمين و المستخدمين الستخدام.

خطة الدعم الفنى بمستوياته المختلفة:

## الرد:

مرفق ملف ( MOHE LMS Technical Support and Security Document ) مرفق ملف ( CDSM\_16\_11\_20.) (مرفق 5) و الذي يتناول خطة الدعم الفني للنظام.

سيقوم Mr. Glenn Booth مدير البرامج فى CDSM و Eng. Nik Goile رئيس قسم التقنيات و الذى حاليا يتعامل مع كثير من الاطباء فى مختلف جامعات مصر بالتنسيق مع الهيئة المختصة من قبل وزارة التعليم العالى و البحث العلمى. من الممكن ايضا استخدام برامج لمتابعة طلبات الدعم الفنى و تسجيل اى مشكلة و متابعة حلها و متابعة تكرارها مره اخرى.

تأمين البيانات:

## الرد:

مرفق ملف ( CDSM\_16\_11\_20 ) و الذى يشرح انظمة الحماية المستخدمة لتأمين البيانات ( CDSM\_16\_11\_20 ) (مرفق 5) و الذى يشرح انظمة الحماية المستخدمة لتأمين البيانات الخاصة بالمستخدمين او ملفاتهم او ما يتعلق بهم داخل النظام. ايضا فان CDSM حائزة على ISO27001 and Cyber Essentials certified يخضع لتدقيق امنى مرتين سنويا من قبل حكومة ويلز و من الممكن اجراء هذا التدقيق بحسب احتياجات الحكومة المصرية و وزارة التعليم العالى و البحث العلمى.



4. التكلفة المالية الكاملة لشراء و استخدام و تشغيل نظام ادارة التعلم (Thinqi)

## الـرد:

24,400,000 دولار أمريكي.

5. تحديد كافة شروط التعاقد في حال جاهزية النظام و الانتهاء من جميع المتطلبات الفنية في الوقت المحدد 2020/12/15 مع تقديم عرض تجريبي كامل بجاهزية النظام لجميع متطلبات وزارة التعليم العالى و البحث العلمي.

## الـرد:

سيتم عرض نماذج أولية من الخصائص المطلوبة يوم الاثنين 2020/12/14، الرجاء مراجعة ملف (<u>MOHE Technical Release Schedule\_CDSM\_16\_11\_2020\_V2</u>) (مرفق 2) للاطلاع على خطة التطوير كاملة.

مرفق لسيادتكم ايضاً:

- شرح للخصائص المطلوبة من قبل وزارة التعليم العالى والبحث العلمى و الرد عليها ملف (MOHE Feature descriptions\_CDSM\_16\_11\_2020) (مرفق 1).
- شرح نظام ادارة الكوارث ملف (EKB Business Continuity and Disaster Recovery\_CDSM\_16\_11\_2020) (مرفق 6).
- أهم الانجازات التي تمت في بناء منصة التعلم الالكتروني بجمهورية مصر العربية للهيئات المحلية ملف (THINQI LMS\_local\_Client\_List) (مرفق 7).
  - مرفق احدث احصائيات الاستخدام لكليات الطب من الجامعات المختلفة ملف (Medical Faculty LMS Stats\_20201112) (مرفق 8)



# Summarized Requirements with brief description

## **Customizing Thingi**

# All items are addressed in the file named "MOHE Technical Release Schedule\_CDSM\_16\_11\_2020\_V2" with estimated Release Plan and Date.

- 1- Administration (item 1-6):
  - a. Requirements:
    - i. Ability to create new role using an easy UI which shows full system privileges
    - ii. Ability to edit existing role using an easy UI which shows full system privileges
    - iii. Ads: system not support commercial ads currently, is it possible to be developed? how much time required for that.



b. Sample:

Australia and		
System		Users
List own insights	C Allow	View and manage own earned badges
Manage models	Allow	View public badges in other users' profiles
Manage badges global settings	Allow	Delete evidence
Create new blog entries		Comment on a learning plan
Edit and manage entries	Allow	Comment on own learning plan
Edit and manage external blogs	Allow	Manage learning plans
Search blog entries	Allow	Manage draft learning plans
View blog entries	C Allow	Manage own learning plans
View draft blog entries	Allow	Manage own draft learning plans
Configure custom fields	C Allow	Request review of a learning plan
Manage advanced grading form templates	Allow	Request review of own learning plan
Share advanced grading form as a template	Allow	Review a learning plan
Configure system templates for Dashboard pages	Allow	View all learning plans
Manage Dashboard page blocks	Allow	View a user competency
xport to portfolios	Allow	Manage evidence of prior learning
Configure question types	Allow	Manage own evidence of prior learning
Create users on restore	Allow	View evidence of prior learning of a user
Create and manage roles	Allow	Edit user messaging profile
<sup>2</sup> erform site-wide searches	Allow	Edit user profile
Change site configuration	Allow	Manage blocks on user profile of other users
/iew the site administration tree (but not all the pages in it)	🖬 Allow	View all user blogs
elete any messages on the site	C Allow	View all user forum posts
Delete messages sent by and to the user	□ Allow	View user full information
Show links to offsite docs	C Allow	View user last ip address
Override course language	Allow	See user activity reports

- 2- User management (item 7-17):
  - a. Requirements:
    - i. Each user view his own courses only, not courses related to other faculties/ universities.
    - Privileges should be on the system level, but customizing/ overriding it for specific user is the only modification occur on user level.
    - iii. Allow faculty admin to upload students using template file, assigning them to their course/ group automatically, as a predefined variables in the template sheet.



- b. Sample:
  - i. Student in faculty no.1, universities no.1 has no access to courses related to the other faculties/ universities.
  - ii. student groups is used within the same course, but students divided into more than one section, each section have its own activities, and students from the first group have no idea about what happens in the other groups.
- 3- Organizational structure (item 18-21):
  - a. Requirements:
    - i. Ability to upload the whole multi-level structure using a template.
- 4- Course management + Learning outcomes (item 22-33):
  - a. Requirements:
    - i. Ability to upload the courses assign it to its category automatically.
    - ii. Ability to choose my targeted category when creating a new course using web interface, and assign it automatically into its pre-selected category.
    - iii. Ability to add/upload ILOs as variables in program level.
    - iv. Ability to add/upload ILOs as variables in course level.
    - v. Ability to map program ILOs into course ILOs.
    - vi. Ability to import/export courses as an IMS package.
  - b. Sample:
    - i. Referring to pre-defined academic structure, specially the last two nodes (program, course). both levels defined according to quality assurance with ILOs, these ILOs should be a variables in the system because it will linked to each activity in my course such as: this learning object covers the first and second ILOs, this assignment measures the third ILO, and this quiz covers each ILO with weights x, y, z,... and so on.



- About scorm compliance: in some point it is clarified as exists, other points clarified as under development, and I the catalog there is clear point that system is scorm compliance so clarification about this point is required.
- 5- Learning content management (item 34-51):
  - a. Requirements:
    - i. Ability to merge videos.
    - ii. Ability to add text, narration, hyperlink.
    - iii. Ability to add questions within video timeline.
    - iv. Ability to take an action according to question answer as a feedback (text, hyperlink,...etc)
    - v. Ability to save questions responses as a report in the main portal.
    - vi. Ability to save Learning object Logs as a report in the main portal.
  - b. Sample:
    - reply contains that required features can be available through third-party module, but without clarifying this module to be able to determine if it is acceptable or not, also time required to integrate not clear too, also to which level integration available between Thinqi and this third-party module.
- 6- Virtual Classroom:
  - a. Requirements:
    - i. Which virtual classroom module to deliver?
    - Deep integration between virtual classroom and portal, so that I can view reports about questions and attendance as a report in the main portal.



- 7- Educational Calendar:
  - a. Requirements:
    - required calendar should be fully inside the system not externally, and should display all created session/ assignment/ quiz... etc
    - b. Sample:



	August 2016									
Sun	Mon	Tue	Wed	Thu	Fri	Sat				
	1	2	3	4	5	6				
7	8	9	10	11	12	13				
					Kaltura Test Example	Grok Test Example				
				GROK Kaltura Assignment	Turnitin Test Assignment - Part 1					
14	15	16	17	18	19	20				
21	22	23	24	25	26	27				
28	29 🗟	30	31							

ii.

i.



- 8- Assignment and grading:
  - a. Requirements:
    - i. inline grading for essay questions should be included in the system using a pre- defined rubric- matrix
    - ii. parallel grading should be supported too
    - iii. Ability to map assignment with learning outcomes and display these achievements in portal reporting.
  - b. Sample:

	3	2	1
Main Idea or Opinion	Response rephrases the question while declaring the writer's main idea or opinion.	Response declares writer's main idea or opinion.	Writer's main idea or opinion is not clear.
Details and Evidence	Writer shares at least 3 clear examples and evidence to support their idea or opinion.	Writer shares 1 or 2 examples and evidence to support their idea or opinion.	Writer shares little or no evidence and examples to support their answer.
Organization, Grammar, Usage and Punctuation	Writer's response has a clear beginning, middle, and end. Grammar, usage and punctuation makes the writing readable.	Writer's response flows, but the beginning, middle, or end is not clear. Grammar, usage and punctuation slows readability.	Response needs stronger transitions. Grammar, usage and punctuation make the text difficult to understand.

- i.
- 9- Quiz management:
  - a. Requirements:
    - i. inline grading for essay questions should be included in the system using a pre- defined rubric- matrix
    - ability to create a quiz using a pre-defined variables such as learning outcomes required to cover and required level of quiz difficulty, ...etc
    - iii. Ability to map quiz with learning outcomes and display these achievements in portal reporting.
    - iv. Ability to use all required question types.



- b. Sample:
  - i. Quiz bowl questions: which presenting students with the answer and asking them to provide the question.
  - ii. Calculated formula question: which presenting student with mathematical equation and ask him to calculate result, result is a variable depending variables of input, which all variables are auto-generated.
- 10- Communication (discussion board + messaging + chat):
  - a. Requirements:
    - i. Full discussion board module
  - b. Sample:
    - All of them clarified in Thinqi as a single item "communication" which contains email, face-to-face, phone, Skype. These items rarely mapped to cover messaging and chat but not discussion board at all, so clarification required about that.
- 11- Communication (social media):
  - a. Requirements:
    - i. Ability to integrate with social media.
- 12- Customization and Branding:
  - a. Requirements:
    - i. Ability to have multitenant, each have its own design, and allow admin for this tenant to customize its design freely.
- 13- Notification Management:
  - a. Requirements:
    - i. Ability to have a notification for each interactive event in the portal.



- 14- Language and Localization:
  - a. Requirements:
    - i. System should support Multilanguage UI (at least Arabic/ English) not only Multilanguage data entry.
    - ii. Ability to add other languages and apply it to the UI language.
- 15- Mobile App and OS Agnostic:
  - a. Requirements:
    - i. Required time to develop mobile app needs clarification.
- 16- Gamification:
  - a. Requirements:
    - i. Ability to apply point for each action made be student.
    - ii. Ability to customize point rules.
- 17- Dashboard /Analysis /Report

Management:

- a. Requirements:
  - Plan is not clear enough will these required items be developed or an integration with a consistent module doing all these required items will be done



## Ability to Integrate between Thingi and Moodle, Appling these features:

- Display content published on Thinqi using Moodle.
- Use Thinqi authoring tool inside Moodle and create content using it, displaying this content on Thinqi too.
- Use Thinqi virtual classroom inside Moodle.
- Each logs happens inside learning object imported from Thinqi or created using Thinqi authoring tool inside Moodle should appear in Moodle reporting.
- Each response to questions inside learning object imported from Thinqi or created using Thinqi authoring tool inside Moodle should appear in Moodle reporting.
- Each logs happens inside Thinqi virtual classroom should appear in Moodle reporting.
- Each response to questions inside Thinqi virtual classroom should appear in Moodle reporting.


Egyptian Knowledge Bank بنك المعرفة المصري

# مرفق 1

# MOHE Feature descriptions\_CDSM\_16\_11\_2020

شرح للخصائص المطلوبة من قبل وزارة التعليم العالى والبحث العلمي و الرد عليها



# **MOHE: Feature descriptions**

FAO: Dr. Ahmed Daher, Deputy Minister of the Ministry of EducationFrom: Dan Sivak, CDSM InteractiveDate: 16/11/2020Version: 1.1

### 1- Administration (item 1-6)

- a. Requirements:
  - i. Ability to create new role using an easy UI which shows full system privileges
  - ii. Ability to edit existing role using an easy UI which shows full system privileges
  - *iii.* Ads: system not support commercial ads currently, is it possible to be developed? how much time required for that.

#### **CDSM** Response

CDSM will provide the administration team with an area that allows them to create new roles and edit existing ones.

The LMS currently has support for the administration team to select which roles are active for users.

Roles		
Custom Ma	anaged	
	Keyword Administrator	×
	News Administrator	×
	Provisioning Administrator	×
	User Administrator	×
	Teacher A role for Teacher Users	
	Admin A role for creating a user an admin	×
	Learner A basic Learner Role	×

#### Applying roles to a user

Configuration of which permissions are available from the role, for example 'can create a Course' is configurable via the user interface in the Roles area.



Back to roles Teacher Details	Policies	Total Statements	Create
Policies	Teacher	19	04/07/2018 - 11:16
wenders	courses-view	2	18/09/2018 - 13:13
	Deny tags	1	03/04/2019 - 10:12
	Deny profile edits	1	15/04/2019 - 09:36
	teacher-guides	1	11/03/2020 - 15:21

#### Defining permissions for a role

The policy authoring panel requires additional documentation to support selection of appropriate permissions for a user. This is usually executed via CDSM as a support task when the platform is configured.

We understand that this will not suit the MOHE requirements. CDSM will provide a user interface for permissions providing a list or equivalent control with check boxes allowing administrators a view of all relevant permissions and a simple ability to toggle them on or off.

#### **Additional notes**

To supply an accurate engineering estimate for the ability to support Ads, we would need further information around the overall requirement.



### 2- User management (item 7-17)

- a. Requirements:
  - i. Each user view his own courses only, not courses related to other faculties/ universities.
  - *ii. Privileges should be on the system level, but customizing/ overriding it for specific user is the only modification occur on user level.*
  - iii. Allow faculty admin to upload students using template file, assigning them to their course/ group automatically, as a pre-defined variables in the template sheet.
  - b. Sample:
  - *i.* Student in faculty no.1, universities no.1 has no access to courses related to the other faculties/ universities.
  - ii. student groups is used within the same course, but students divided into more than one section, each section have its own activities, and students from the first group have no idea about what happens in the other groups.

#### **CDSM** Response

CDSM will support these requirements by using its "Content Folder" system to set up a structure that allows the relevant courses to be accessed by the appropriate faculties/universities. This will also include the ability to upload/import students via a predefined template which assigns them to the appropriate courses/groups.

Content Folders can be created per tenant. They are a mechanism for providing an audience-based control for content created in the system.

Content Folders	C	+ Add content folder
All Events Resources Courses		
Name		Date Created
Content - Logged in users	Courses Resources Events	07/08/2020 - 07:50

Example of a content folder

Courses are "published" to a single Content Folder so that they can be made visible and consumable to a specific audience. The control for who is in that audience is via the content folder.

		CUSI
<ul> <li>Back to Content folders</li> <li>Content - Logged in users</li> </ul>	Permissions Name	Manage organisational nodes Manage roles Manage users Dote Modified
Overview Permissions Contents	Anonymous user ≗ ✓ Authenticated user	Viewer 07/08/2020 - 07:50

Permissions applied to a content folder

The content folder supports the ability to target groups of users by:

- The whole tenant
- Their Organization Chart memberships
- The role they have in the system
- Individually

Users can be targeted in multiple ways and the most appropriate permission will apply. For example, a user could be in 'All Users' as a 'View' on the content folder, as well as included directly as 'Deny'. In this case the user would not be able to see the contents of the folder.

Users in the system when viewing courses will see those they have signed up for, and those available to them via the audiencing controls. This will prevent them seeing courses from other faculties and universities.

The user administration area supports the ability to upload new users via a CSV.

Users	5							
Users	Imports						+ The Import Users (CSV	X Clear Imports
Alias	Email	Given Names	Surname	Location	Role	Organization	Date Created	State

User import area in administration

CDSM understands the MOHE requires this capability to allow for the assigning of Courses enrolment. CDSM will support functionality during upload so that users can be assigned to Courses automatically. CDSM will support CSV upload to assign users to designated places in the Organization Chart (or group).



### 3- Organizational structure (item 18-21)

- a. Requirements:
  - *i.* Ability to upload the whole multi-level structure using a template.

#### **CDSM** Response

CDSM has a feature in its admin area, the Organization Chart, that allows you to easily create a new organizational structure.

Departments		
Cairo University	266 members	• +
Postgraduates	207 members	• +
– 02 Histology	0 members	• +
02 Histology MD	0 members	• +
02 Histology MSc Part 1	1 member	• +
02 Histology MSc Part 2	0 members	• +
+ 01 Anatomy & Embryology	0 members	• +
⊕ 03 Medical Biochemistry and Molecular Biology	0 members	• +

The Organization Chart

CDSM understands the MOHE needs this to be a template upload to minimise administrative overhead. CDSM will support as part of the user interface the ability to author the entire multi-level organization structure via a simple template.



### 4- Course management + Learning outcomes (item 22-33)

- a. Requirements:
  - *i.* Ability to upload the courses assign it to its category automatically.
  - *ii.* Ability to choose my targeted category when creating a new course using web interface, and assign it automatically into its pre-selected category.
  - *iii. Ability to add/upload ILOs as variables in program level.*
  - iv. Ability to add/upload ILOs as variables in course level.
  - v. Ability to map program ILOs into course ILOs.
  - vi. Ability to import/export courses as an IMS package.
  - b. Sample:
  - i. Referring to pre-defined academic structure, specially the last two nodes (program, course). both levels defined according to quality assurance with ILOs, these ILOs should be a variables in the system because it will linked to each activity in my course such as: this learning object covers the first and second ILOs, this assignment measures the third ILO, and this quiz covers each ILO with weights x, y, z,... and so on.
  - *ii.* About scorm compliance: in some point it is clarified as exists, other points clarified as under development, and I the catalog there is clear point that system is scorm compliance so clarification about this point is required.

#### **CDSM** Response

CDSM currently supports a robust authoring environment for Courses. Some of the functionality the MOHE requires needs to be developed over the coming weeks to meet expectations.

The Courses authoring environment currently supports selection of categories and automatic assignment of them via the authoring tool.

CDSM will undertake work to extend this area to include the ability to select ILOs that are relevant to the Course.



قریمه Knowledge Bank بناک المعرفة المصرب	Search site Q	Apps	Â	😢 Ines Cunha 🗸
Residence Publishee	cy Program Gynaecology & Obstetrics Edit 06/10/2020 10:16 Privacy: Content - Logged in users			
0	Course Settings			

Example of how user can assign ILO to the Course

CDSM supports the ability to import existing Courses constructed elsewhere as IMS standards packages, specifically SCORM. These SCORM packages can then be run within various locations on Thinqi LMS.



Add SCORM content         Image: Singlescobasic.zip       Scorm12       25/03/2020 10:55         Image: Singlescobasic.zip       Scorm12       25/03/2020 09:04         Image: Singlescobasic.zip       Scorm2004       07/10/2019 15:27         Image: Scorm2004       07/10/2019 15:27       Scorm12       13/06/2019 16:16         Image: Scorm13       13/06/2019 16:16       Image: Scorm13       13/06/2019 15:45         Image: Add selected       Cancel       Image: Scorm13       13/06/2019 15:45	E PNG S	oftwareTestingPNG				
Image: Singlescobasic.zip       Scorm12       25/03/2020 10:55         Image: Singlescobasic.zip       Scorm12       25/03/2020 09:04         Image: Singlescobasic.zip       Scorm2004       07/10/2019 15:27         Image: ScoRM20043rdEdition.zip       Scorm12       13/06/2019 16:16         Image: Scorm13       13/06/2019 16:16       Image: Scorm13       13/06/2019 15:45         Image: Add selected       Cancel       Image: Scorm13       13/06/2019 15:45	Add SCORM content					
Scorm12       25/03/2020 10:55         Singlescobasic.zip       Scorm12       25/03/2020 10:55         Singlescobasic.zip       Scorm12       25/03/2020 10:55         Singlescobasic.zip       Scorm12       25/03/2020 10:55         Singlescobasic.zip       Scorm12       25/03/2020 09:04         Scorm2004       07/10/2019 15:27         RuntimeBasicCalls_SCORM12.zip       Scorm12       13/06/2019 15:45         ProddingSCO.zip       Scorm13       13/06/2019 15:45         Add selected       Cancel       Tanta and	Singlescobasic.z	ip	Scorm12	25/03/2020 10:55	^	
Scorm12 25/03/2020 10:55   singlescobasic.zip Scorm12   Scorm12 25/03/2020 09:04   Scorm2004 07/10/2019 15:27   Scorm2004 07/10/2019 15:27   RuntimeBasicCalls_SCORM12.zip Scorm12   ProddingSCO.zip Scorm13   Add selected Cancel	Singlescobasic.zi	ip	Scorm12	25/03/2020 10:55		
Scorm12 25/03/2020 10:55   isinglescobasic.zip Scorm12   Scorm12 25/03/2020 09:04   Scorm2004 07/10/2019 15:27   Scorm2004 07/10/2019 15:27   RuntimeBasicCalls_SCORM12.zip Scorm12   ProddingSCO.zip Scorm13   Add selected Cancel	Singlescobasic.zi	ip	Scorm12	25/03/2020 10:55		
Scorm12 25/03/2020 09:04   Scorm2004 07/10/2019 15:27   Scorm2004 07/10/2019 15:27   RuntimeBasicCalls_SCORM12.zip Scorm12   Scorm13 13/06/2019 16:16   ProddingSCO.zip Scorm13   Add selected Cancel	Singlescobasic.zi	ip	Scorm12	25/03/2020 10:55		
Scorm2004 07/10/2019 15:27   RuntimeBasicCalls_SCORM12.zip Scorm12   ProddingSCO.zip Scorm13   Add selected Cancel	Singlescobasic.zi	ip	Scorm12	25/03/2020 09:04		
RuntimeBasicCalls_SCORM12.zip Scorm12 13/06/2019 16:16   Image: Scorm13 Scorm13 13/06/2019 15:45   Add selected Cancel	SCORM20043rdE	dition.zip	Scorm2004	07/10/2019 15:27		
ProddingSCO.zip     Scorm13   13/06/2019 15:45      Add selected     Cancel	RuntimeBasicCa	lls_SCORM12.zip	Scorm12	13/06/2019 16:16		
Add selected Cancel	ProddingSCO.zip	)	Scorm13	13/06/2019 15:45		
Add selected Cancel					Ŧ	
		Add selected	Cancel			

Selecting SCORM content to use in the LMS

CDSM understands the MOHE requirements also need the ability to export our Playlists as IMS standard packages. CDSM are in the process of working on export of Playlists as IMS standard packages supporting xAPI. CDSM understands that the MoHE preference is to use SCORM for better interoperability support (Moodle etc) and so will divert efforts to facilitating that ahead of existing endeavours.



### 5- Learning content management (item 34-51)

- a. Requirements:
  - *i. Ability to merge videos.*
  - *ii. Ability to add text, narration, hyperlink.*
  - *iii. Ability to add questions within video timeline.*
  - *iv.* Ability to take an action according to question answer as a feedback (text, hyperlink,...etc)
  - v. Ability to save questions responses as a report in the main portal.
  - vi. Ability to save Learning object Logs as a report in the main portal.
  - b. Sample:
  - *i.* reply contains that required features can be available through third-party module, but without clarifying this module to be able to determine if it is acceptable or not, also time required to integrate not clear too, also to which level integration available between Thinqi and this third-party module.

### **CDSM** Response

CDSM is currently evaluating external modular software plug in services to enable the editing and multimedia manipulation required. There are a number of options available to the project, but further time is required to outline this requirement as discussions are in place with 3<sup>rd</sup> party vendors regarding service features At present the options available are:

• Commercial services that are interoperable

- Open source services that are interoperable
- Native build

As CDSM proposes to transfer code to MOHE we are aware that we will have to ultimately have to build the service that provides these functions in the LMS. Current evaluation is ongoing.



### 6- Virtual Classroom

- a. Requirements:
  - i. Which virtual classroom module to deliver?
  - *ii.* Deep integration between virtual classroom and portal, so that I can view reports about questions and attendance as a report in the main portal.

### **CDSM** Response

CDSM will provide its virtual classroom module as part of the solution.

The Thinqi virtual classroom feature will enable MOHE to host classes online with a variety of flexible tools. These include:

#### Breakout Rooms

Breakout rooms are sub-rooms used to split participants into smaller groups. These smaller groups of participants can engage one another through tools such as video and text chat, file sharing, screen sharing, and the interactive whiteboard.

#### Interactive Whiteboard

The interactive whiteboard is simple to use, with a range of tools to encourage collaboration. Each whiteboard consists of up to 50 blank slides. Permissions can be set so that either one or all learners can access the collaborative tools.

#### <u>Webinar</u>

The virtual classroom software is purpose-built for online instruction. A webinar mode can be enabled to engage large audiences of learners effectively online. Learner focus can be maintained using the following features:

- High quality, real-time audio, and video
- File sharing, including presentations, PDFs, and video for synchronous viewing
- Quizzes, enabling live assessment on large audiences of learners in real time.

#### File storage

Any files uploaded to virtual classrooms are encrypted, secure and available when needed. Supported file types include:

- Presentations PPT, PPTX
- Video MP4, MOV, AVI, WMV
- Image PDF, PNG, JPG
- Document DOC, DOCX
- Spreadsheet XLS, XLSX
- Audio MP3

#### Live Polls

Live polls are used to gain instant learner feedback. Questions can be multiple choice or open questions.



In addition to the features listed above, other virtual classroom tools include screen sharing, session recording and shared notes.

Reports are available in Thinqi LMS that provide feedback for instructors on how users have performed on quizzes and key information such as attendance and engagement.

<b>F</b> ,thi	inqi Search site q	•)		🗰 Apps  ?	🔮 🎲 Adam Irwin 👻 English 🔹
< /	K Quiz Question W	Vhere on a meander would you fir	nd a river cliff? 🔹	🛓 Get Report	Filter Set 1 All Users (1,010)
W	<b>3</b> Users	<b>3</b> Answers	Hard 0.33 Difficulty Index	-1.00 Discrimination Index	Shared as  + Add filter set
4	Filter Set 1: All Users				
* *	<b>Correct vs Incorrect</b> A pie graph showing the percentage answers.	e of correct answers vs incorrect	Answer Distribution A radar chart showing the number of	f people who chose each answer.	
			c	в	
	All Correct   Filter	r Set 1 📕 Incorrect	A - Outside bend B - Inside bend	<b>C</b> - The centre of the channel	
	Answer Breakdown A bar graph showing the percentag	e of people that chose each answer.			

A quiz report where the instructor has drilled down into a specific question





System reports showing most active content



### 7- Educational Calendar

- a. Requirements:
  - *i. required calendar should be fully inside the system not externally, and should display all created session/ assignment/ quiz... etc*

### **CDSM** Response

CDSM will facilitate this requirement by deploying an integrated calendar onto the user's workspace. This will provide the user with a personalised calendar view that keeps them up to date on all activities they need to participate in or complete within the system.

This is already a near-term roadmap item for the LMS based on our work with the Medical Faculties in Egypt.

An existing feature of the LMS that integrates a calendar and date-based control is Events. We intend the personalized calendar to share some of the features displayed here, specifically:

- Where a calendar control for selecting the date is available then days with items on are highlighted for easy scanning across months.
- Where a list is used for items it has date boundaries inserted in line to group items by the day that they are due
- Items being shown have enough relevant information displayed to be effective to the student at communicating what they are looking for
- Items link into the relevant Course/Program/Assignment that has the deadline so it can be completed
- Items that are completed are indicated as such in the user interface, so they are not confusing to the students





Example #1 of the calendar view in events





Example #2 of the calendar view in events



### 8- Assignment and grading

- a. Requirements:
  - *i. inline grading for essay questions should be included in the system using a pre-defined rubric- matrix*
  - ii. parallel grading should be supported too
  - *iii.* Ability to map assignment with learning outcomes and display these achievements in portal reporting.

#### **CDSM** Response

CDSM will support inline grading for Assignments. The grading will be based on Rubrics that are created within the LMS and assigned to the Assignment, or the relevant Playlist/SCORM content that the student is responding to.

Assignments supports contributors for Assignments to share the marking workload for large distributions. CDSM will support the parallel grading system for these contributors to facilitate the MOHE requirements. CDSM will support multiple reconcilers and graders. These individuals will be selected by the Assignment creator, or appropriate administrator user.

CDSM will support the ability to assign Learning Outcomes to an Assignment and all Learning Outcome achievements will be available via the portal Reports features.

Frontes Konsidera Bark	earch site Q	Ap	ps 🋕	Ines Cunha 👻
بنك المعرفة المصري	Rubric Scale			
			( <b>*</b> ~ ~ ~	
	Title			
	Shows respect and behaves in accordance with Good Medical Practice			
Inactive Users	Criterion			
	Patient's history			
Login Frequency				
	Descriptor for 'Exceptional'			
	Focuses questioning to establish working diagnosis and able to relate to relevant examination, investigation			
Competency Framework	Descriptor for 'Average'			
Rubrics Bank	Demonstrates ability to rapidly obtain relevant history in context of severely ill patients and/or in an emergency situation.			
	Descriptor for 'Below Average'			
	outpatients consultation onward referral			
Resource Approval	Descriptor for 'Poor'			
Archived Resources	Obtains records and presents accurate clinical history relevant to the clinical presentation.			
Bulk Actions	Save Close			
Alert Types				
Dublishing				

Example of authoring a rubric scale

cd	sm	
uu		

Marking Scheme (Optional)	Mark Scheme		
Choose a mark scheme.	No Scheme	or Add a new mark schere	<u>me</u>
Leaning Outcomes and Rubrics	Learning Outcomes		
Add a rubric for assessing this assignment. This will allow you to assess your students performance in more detail.	Medical Competencies > Basic Clinical Compete Comprehend the importance of different elements	ncies > History Taking of history	Add Rubric
	Add a Learning Outcome		
Certification (Optional)	Choose certificate template		
When the assignment is completed by a user, it will generate a certificate for them to keep.	No Certificate	~	
	Certificate criteria The user must attain this	score to achieve certification	

### Example of selecting a learning outcome for an assignment



### 9- Quiz management

- a. Requirements:
  - *i. inline grading for essay questions should be included in the system using a pre-defined rubric- matrix*
  - *ii. ability to create a quiz using a pre-defined variables such as learning outcomes required to cover and required level of quiz difficulty, ...etc*
  - *iii.* Ability to map quiz with learning outcomes and display these achievements in portal reporting.
  - iv. Ability to use all required question types.
  - b. Sample:
  - *i.* Quiz bowl questions: which presenting students with the answer and asking them to provide the question.
  - *ii.* Calculated formula question: which presenting student with mathematical equation and ask him to calculate result, result is a variable depending variables of input, which all variables are auto-generated.

#### **CDSM** Response

CDSM supports a robust authoring environment for Playlists and Question Banks.

Quizzes, and questions can be authored and graded in other features. Question Banks support creating quizzes from predefined variables using all available question types. CDSM will support new question types for Quiz Bowl and Calculated Formula.

CDSM will support selection of Rubrics for questions authored as part of a Playlist/Question Bank. CDSM will also support the assignment of one or more Learning Outcomes to a Playlist/Question Bank so that these achievements can be displayed in portal reporting features.



<b>F</b> ,thi	nqi Search site q			🗰 Apps (	🧳 🏟 Adam Irwin 🔹 English 🔹
<	K Quiz Question V	Vhere on a meander would you fin	d a river cliff? 🔹	📕 Get Report	Filter Set 1 All Users (1,010)
Ŀ	<b>3</b> Users	<b>3</b> Answers	Hard 0.33 Difficulty Index	-1.00 Discrimination Index	Shared as • + Add filter set
<	Filter Set 1: All Users				
\$	<b>Correct vs Incorrect</b> A pie graph showing the percentage answers.	e of correct answers vs incorrect	Answer Distribution A radar chart showing the numbe	r of people who chose each answer.	
			c		
	All Correct   Filter	r Set 1 🔲 Incorrect	A - Outside bend B - Inside ben	C - The centre of the channel	
	Answer Breakdown A bar graph showing the percentag	e of people that chose each answer.			

A quiz report where the instructor has drilled down into a specific question



### 10- Communication (discussion board + messaging + chat)

- a. Requirements:
  - i. Full discussion board module
  - b. Sample:
  - *i.* All of them clarified in Thinqi as a single item "communication" which contains email, face-to-face, phone, Skype. These items rarely mapped to cover messaging and chat but not discussion board at all, so clarification required about that.

#### **CDSM** Response

CDSM's LMS has a range of communications tools to support its users. The platform can offer integration with popular 3rd party communications tools as well as offering its own built in functions.

There are fully functioning forum boards which allow multiple threads/discussions as well as the ability to embed multimedia. The platform also has built in chat/messaging features to allow users to communicate with each other directly through the platform.



Example of chat/messaging functionality in the LMS



### 11- Communication (social media)

- a. Requirements:
  - *i.* Ability to integrate with social media.

#### **CDSM** Response

CDSM currently integrates with all the popular social media channels and the platform generates the appropriate share links to allow users to create posts from within the applications.

Within supported features of the platform there is a 'share' button that when enabled at a system level allows for users to share the current Courses, Event, Assignment etc to a range of social media channels.

		Share th	nis event		×
ver	9	•	in		n <mark>d Time</mark> , 17 Nove
	Twitter	Facebook	LinkedIn	Email	<u>Add to G</u> nload iCa
	Share Link				
	https://swebb.t	hinqi-staging.co.u	k/events/866298ea-40	Сору	on
					<u>ich Thinqi</u>
				Or	ganised by

Example of social media integration in the LMS



### 12- Customization and Branding

- a. Requirements:
  - *i.* Ability to have multitenant, each have its own design, and allow admin for this tenant to customize its design freely.

#### **CDSM** Response

CDSM currently supports a wide range of theming controls that are available to the administrative team for a given tenant.

Controls are available for the following configurable elements on the LMS:

- Text colour
- Font
- Text size
- Contrast
- Image for logo in top left
- Colours for header bar
- Homepage images and colours
- Email image and 'sent by' name
- Favlcon selection for the website/tenant
- Control for feature icons and default colours

< Back to Themes	Com
thinqi-platform-	
accessible	Theme Name
Core	thinni-olaform-scencible
Header	uningeplation reaccessione
Login	Accent Colour
Mail	This will be used when we want to draw your attention to something e.g. buttons, links & tabs
Favicon	
Apps	Accent Hover Colour 🔺
Set as current theme	This is the colour you will see when you hover an interactive element that uses the accent colour
	Accent Contrast Colour This will be used when we need something to stand out against the accent colour e.g. the text on a button
	Complimentary Accent Colour This will be used as a secondary accent colour when we need something to stand out alongside the accent colour
	Font Family This will be the font used in this theme
	Noto Sans, Noto Sans Arabic
	Font Size This will set the default font size across the site
	Font Colour This will set the default font colour
	Font Contrast The contrast percentage used for the font. The higher the percentage, the greater the contrast 100%
	Save

Example of administrator customising the theme of the LMS



### 13- Notification Management:

- a. Requirements:
  - *i.* Ability to have a notification for each interactive event in the portal.

### **CDSM** Response

CDSM currently supports a notification system in the LMS. Each interactive event in the portal can generate a notification for students/users alike when they are in some way associated with it. For example, they are enrolled on a Course.



Example of notifications in the LMS

The types of interactive events which trigger notifications can be managed at a system level by administrators. Similar controls are then available to students/users to further personalize their notifications.



#### Notifications

Use the settings below to configure the default notification settings for your domain.

Announcements		^
	News Feed	Notifications
Created		
Articles		^
	News Feed	Notifications
Created	<ul><li>✓</li></ul>	
Files		^
	News Feed	Notifications
File Created		-
Z Assignments		^
	News Feed	Notifications
Available	-	
Started		-
Submitted	-	
Completed		-
Badges		^
	News Feed	Notifications
Earned		

Administrator customising notifications in the LMS



### 14- Language and Localization

- a. Requirements:
- *i.* System should support Multilanguage UI (at least Arabic/ English) not only Multilanguage data entry.
- *ii.* Ability to add other languages and apply it to the UI language.

### **CDSM** Response

CDSM supports a full multilingual UI and multilanguage data entry system. Arabic and English support is fully available on EKB LMS, and Study platforms to view. Additional languages can be added to the system once translations are made.

These languages will be included as part of the UI as you can see on Study and in the provided screenshot which includes other language variations.



Example of a multilingual user interface



<	English 🔻
ſ	Current Language(s)
	Add a Language
	+ English
	+ português
	العربية +
Softwar	+ 日本語
Last save	d: a few seconds ago

Example of multilingual data entry



### 15- Mobile App and OS Agnostic

- a. Requirements:
  - *i.* Required time to develop mobile app needs clarification.

### **CDSM** Response

CDSM are currently developing a Thinqi Companion mobile application for iOS and Android devices. This is planned for an end of Q1 2021 release.

The application will allow users to take their learning with them everywhere. It will allow every user to stay up to date with the latest events and important announcements from their chosen communities in the platform, check their progress through courses and assignments and to search for and review the rich learning content in the content libraries.

The application will alleviate issues such as poor bandwidth and mobile data costs by reducing the amount of data required to access learning materials by allowing users to cache content on their device for review while offline.

The mobile app will allow users to:

- Log into their university/faculty LMS tenant using the appropriate identity provider for that institution
- Browse or search for useful content in the digital library
- Access learning resources from the library and cache them on their device for offline access
- Browse their chosen user communities, classes and networks
- Receive push notifications about important events happening in the LMS (user requesting to join a class, assignment being assigned to a user etc.) so they never miss important activity
- Conduct common administrative tasks such as accepting users into classes or reviewing assignments
- Complete assessments while offline, where appropriate
- Gather evidence through by uploading documents from the device or taking pictures with the mobile camera

All user activity while offline is recorded locally and then uploaded to the platform when reconnecting to the network, so a full record of their activity is maintained in the xAPI Learner Record Store.





Example of a playlist being consumed in the mobile app



## 16- Gamification

- a. Requirements:
  - *i.* Ability to apply point for each action made be student.
  - *ii. Ability to customize point rules.*

#### **CDSM** Response

All significant learning actions in the LMS are captured as Experience API (xAPI) statements which store metadata in a consistent structured format that is interoperable with any xAPI compliant Learner Record Store (LRS).

These xAPI statements contribute to reward and recognition across the LMS in the form of:

- Awarding badges
- Reporting
- Learner activity analysis
- Point accumulation

CDSM proposes to extend the xAPI statements in the following way:

- Add additional xAPI statements to cover any key interactions not already covered by this functionality
- Allow for point accumulation to be customized by administrators



## 17- Dashboard /Analysis /Report Management

- a. Requirements:
  - *i.* Plan is not clear enough will these required items be developed or an integration with a consistent module doing all these required items will be done

### **CDSM** Response

All data is stored in the Thinqi data lake that allows reports to be generated using any common Business Intelligence tool such as PowerBI or Tableau. We can also create custom reports as required and embed these in the platform using an integration with AWS Quicksight. These will be tailored to meeting the MOHE's requirements as they emerge during the project.

The data lake stores the data generated by all the tenants in the LMS. It is stored as both structured and unstructured data. This offline data store allows for Business Intelligence tools such as performing rich analysis and complex queries without impacting the performance of the live platforms and its mission-critical data layer.

Data is stored in such a way as to allow for deep analysis without having to define the desired analysis ahead of time.

Each tenant's data will be logically separated allowing us to provide access to the data for analysis securely to each individual tenant's administrative team. We can also analyse data from across all tenants to provide unparalleled insight into the entire estate.

Cross-institution reports will be made available to MOHE through custom reports powered by the data lake. This will provide key performance indicators (KPIs) for monitoring purposes such as usage per publisher, institution and faculty.



Example custom report created to show usage of the LMS geographically across Wales, UK using the Thinqi data lake



### Ability to Integrate between Thinqi and Moodle

Requirements:

- Display content published on Thinqi using Moodle.

- Use Thinqi authoring tool inside Moodle and create content using it, displaying this content on Thinqi too.

- Use Thingi virtual classroom inside Moodle.

- Each logs happens inside learning object imported from Thinqi or created using Thinqi authoring tool inside Moodle should appear in Moodle reporting.

- Each response to questions inside learning object imported from Thinqi or created using Thinqi authoring tool inside Moodle should appear in Moodle reporting.

- Each logs happens inside Thinqi virtual classroom should appear in Moodle reporting.

- Each response to questions inside Thinqi virtual classroom should appear in Moodle reporting.

### **CDSM** Response

CDSM proposes to extend Thinqi core features to allow them to be consumed in Moodle via a Learning Tools Interoperability (LTI) integration.

Thinqi will publish each core feature as an LTI tool which may then be consumed in any LTI compliant platform, including Moodle. The LTI standard handles secure authentication, role and permission scoping and also manages reporting requirements between the two platforms.

Thinqi core features to support LTI publishing include the Digital Library, Assignments, Study Guides, Playlists, Reporting and Analytic Tools and Networks.

Support for Thinqi features as LTI tools will be released in phases with a planned completion date for September 2021. We will prioritise LTI feature releases to ensure Thinqi features are available to Moodle platform users as soon as possible and to maximise engagement with Moodle users by April 2021.

The Thinqi LTI features will also publish reporting data to the consuming Moodle platforms via the LTI standard meaning the outcomes of any activity will be available for reporting directly in the Moodle platform as well as rich analytic tools being made available in the Thinqi platform.

**Note:** For the requirements listed above we will support as much reporting back into Moodle as it supports via the LTI standard. We are not responsible for extending Moodle where these requirements currently do not exist in its feature set.



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مرفق 2

# MOHE Technical Release Schedule\_CDSM\_16\_11\_2020\_V2

الجدول الزمني لتنفيذ الخصائص المطلوبة من قبل CDSM الى وزارة التعليم العالى و البحث العلمي



# MOHE: Release schedule

Release plan

Date: 17/11/2020 Version: 1.1

### Release 1 - December 12th, 2020

- LMS Environment creation
- Tenant Creation by Template.
- Customisation & Branding (Item 12)
- Social Media (Item 11)
  - Enabling correct share options across tenants
- Discussion boards, messaging, chat (Item 10)
  - Chat Conversations feature enabling private messaging between 2 or more individuals via People application/appropriate links through Classes/Networks
    - People filtering ("communication" email, face-to-face, skype) is an administrator definable list which students can tag themselves as via their profile to allow them to be found via appropriate filtering by others.
  - Discussion Boards Open threaded discussions available via Classes/Network for public messaging for the entire group to participate in
- Notification Management (Item 13)
- Language support for all tenants: (Item 14)
  - Arabic
  - English
  - Support for uploading language packs to add languages as required
- Program
  - Creation and Management via user interface
  - Template management
- Administration (Item 1)
  - Roles management user interface
- User management (Item 2)
  - (I) and (II)
- Feature prototypes for Ministry Technical Committee to evaluate (To be Identified)

### Release 2 - Jan 15th, 2021

- Virtual Classroom Function integrated and delivered via Events feature (Item 6)
  - Attendance reports are available,
  - Questions are captured
- Administration (Item 3)
  - CSV Student Upload
    - With assign to Organization Node
  - Organization Chart (Item 3)
    - Upload from template (Item 3)



- ILOs (Item 4)
  - Creation and Management via User interface
  - Assign to Course
  - Assign to Program
  - Mapping ILOs
  - Template management
- Courses
  - Template management

### Release 3 - February 26th, 2021

- Administration
  - CSV Student Upload
    - With assign to Course
- Assignments (Item 8/9)
  - ILO Support
  - Audiencing Support
  - Rubric Support with inline grading capability
- Playlists (Item 9)
  - ILO Support
  - Audiencing Support
  - Rubric Support
  - Question types not currently available that require development
    - Calculated Formula content block
    - Question Bowel content block
- Workspaces Calendar view (Item 7)
  - Main requirement to see all 'date' based items for a "student"

### Release 4 - April 9th, 2021

- Reports (Item 17)
  - Diverse capabilities across all tenants/faculties/users
  - Central access by administrators
  - Scoped University access
  - Scoped Faculty access
  - Available reporting information :
    - All significant learning data is stored in the data lake
    - Significant auxiliary data like 'views' is stored in the data lake
    - Where data that is important to the customer is required, CDSM will support those requirements for usage in reports
    - Reports are available based on customer requirements using any/all data stored
    - For example (not an exhaustive list):



- Ability to report on a Course cyclic data, or enrollment percentage, or total completion percentage
- Ability to report on login frequency per University/Faculty
- Ability to report on point in time data across all significant learning, plot as histograms, line charts, radar charts, bubble charts and other graphing types
- Ability to run statistical analysis such as deep ranking, percentile ranking, locality etc.
- Ability to report on Courses by Owner, or other attributes associated with the Course such as Learning Outcomes, Rubrics etc.
- Ability to report on grade distributions for Course/Assignment/Playlists or any features with a "Grade" mechanic
- Return on Investment reports can be created in consultation with MoHE to produce data as they require based on key performance index (KPI) that they define
- Available Infrastructure reports:
  - Disclaimer: Dependant on hosting solution
  - Infrastructure monitoring is deployed and used extensively to track system performance
  - In cloud hosting version the following is supported at minimum:
    - CPU Utilization
    - Memory Utilization
    - Network Utilization
    - Disk Utilization
      - Storage usage
      - I/O usage
    - Application usage
      - Request Per Minute
      - Average Response Time
      - Request Per Target
      - Error Rate
    - Database Usage
      - Current operation statistics
      - Slow query logs
      - Capacity monitoring
- LTI (Moodle interoperability queries)
  - LTI Provider to integrate with Moodle for 'basic' launch/outcomes
  - As an LTI provider this will allow Thinqi LMS to integrate with Moodle using a standards-based approach
  - We will commit to looking at integration of Playlists or Repository to begin with and rollout complete support in later releases.
  - CDSM are open to discussions on which features are supported on the accelerated time frame
- Gamification (Item 16)


- Points per action in the system
- Customize rules for points
- Learning content management (Part 1) (Item 5)
  - Ability to merge videos.
  - ii. Ability to add text, narration, hyperlink.
  - iii. Ability to add questions within video timeline.
  - iv. Ability to take an action according to question answer as a feedback (text, hyperlink)

#### Release 5 - April 30th, 2021

- Scorm Compliance (Item 4)
  - Export Playlists as SCORM/IMS
  - Import SCORM for usage in Courses/Repository/Assignments
  - LMS Supports ability to import existing SCORM content for usage in various parts of the system already
  - LMS will support the ability to export Playlists as SCORM packages for usage in other systems e.g. Moodle
- Cross platform mobile apps for offline content (Item 15)
  - Incremental delivery based on feature priorities content access
- Playlists
  - ILO / Rubric support at question level
- Supports auto generated 'QB' from questions for pre-defined variables
- Learning content management (Part 2) (Item 5)
  - v. Ability to save questions responses as a report in the main portal.
  - vi. Ability to save Learning object Logs as a report in the main portal.

#### Release 6 - August 2021

- LTI (Moodle interoperability queries)
  - Remaining features for Moodle interoperation
- Assignment and grading (part2) (Item 8)
  - o parallel grading should be supported

#### Notes to committee

- Missing Ads: system not support commercial ads currently, is it possible to be developed? how much time required for that. Did not understand and would require more information to supply an engineering estimate.
- Missing Full discussion board module. Think this is discussion boards which is already covered Discussion boards are offered in Networks and Classes so was unsure if this is required.



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مرفق 3

## MOHE LMS Operational Implementation Plan\_CDSM\_16\_11\_20

خطة التشغيل الموضوعة لل LMS

## MOHE LMS Operational Implementation Plan - CDSM

FAO: Dr. Ahmed Daher, Deputy Minister of the Ministry of Education

From: Dan Sivak, CDSM Interactive

Date: 16/11/2020

#### Overview

Please find a proposed high-level project plan for the successful delivery of the MOHE LMS. This plan assumes approximately 320 faculties across 26 government funded

Our proposed strategy is as follows:

- Roll out onboarding to the LMS to groups of universities based on "phases"
- Each phase will give an opportunity for stakeholders to feedback and for the onboarding experience to be iteratively improved for each phase
- Each phase will be measurable by Key Performance Indicators (KPIs) to ensure accountability to the higher officials of the MOHE
- Each phase will be more streamlined as teams "on the ground" in the universities gain more experience
- Each phase will include a greater number of universities
- Each phase is based on a two-month duration with a total of 5 phases over 10 months

During each phase there will be ongoing activities:

- Update of LMS every six weeks with the latest feature development based on MOHE stakeholder priorities
- Ongoing training delivery to faculty stakeholders (see training plan document)
- Migration to local data centre for hosting (as and when required)

#### Phase 1 - Delivery of the Cloud Hosted Tenant (Months 1-2)

This phase covers preparation of infrastructure for the national higher education LMS and

Actions:

- Infrastructure
  - Delivery of CDSM's Learning Management System via AWS cloud services
  - Languages of choice: English, Egyptian Arabic, French, etc.
  - Branded with a "vanilla" theme per faculty (medicine, law, engineering etc.)
- Rollout

- Identify first wave of faculties and pilot institutions (~20) extend medical and add one other
- Publish detailed implementation roadmap to stakeholders
- Governance
  - Formation of supreme LMS committee
  - Formation of faculty LMS committees
  - Formation of best practice working groups
  - Formation of training team
  - Schedule committee meetings
  - Publish detailed governance guidelines to stakeholders
- Development
  - Identify initial development roadmap
  - Focus on cross-tenant administration tools
  - Publish detailed development roadmap for phase 2 to stakeholders
- Training and support
  - Agree training curriculum
  - Begin formation of training qualification for the LMS
  - Publish training plan to stakeholders
  - Hiring of LMS training experts for each university
  - See training plan document for more details

#### Phase 2 - Delivery of V1 of the higher education LMS to initial stakeholders (Months 3-4)

This phase covers rolling out the LMS to the pilot faculties identified in phase 1.

Actions:

- For first wave faculties and pilot institutions (~25):
  - Setting up and configure "vanilla" tenants
  - Integration with faculty Identity Provider (Azure, Shibboleth, Google etc.)
  - o Onboarding of administrators, teachers, and students
  - Training delivered to faculty champions ("train the trainer")
- Rollout
  - Identify second wave of faculties and institutions
- Governance
  - Committees and working groups meeting regularly to assess progress and decide development priorities for phase 3
- Development
  - Release phase 1 features
  - Develop phase 2 features
  - Integration of key third party services
  - Integrating third party standards-driven applications such as content libraries for new faculties
- Training and support
  - Training begins at each university (see training plan document for more details)



- $\circ$   $\,$  Best practice guides created from working group outputs  $\,$
- Digital training programme for administrator, trainers, and students
- Rollout of training qualifications for the LMS
- Access to a tier 2 and tier 3 service/technical help desk for faculty champions

#### Rollout of LMS to second wave of faculties and institutions (Months 5-6)

This phase continues the rollout of the LMS to more universities and improves the process based on feedback gathered in the previous phase.

#### Actions:

- Rollout of second wave of faculties and institutions (~50 tenants)
- Identify next wave faculties and institutions
- Committees and working groups meeting regularly to assess progress and decide development priorities for next phase
- Release latest features and develop next set of features
- Integration of key third party services
- Integrating third party standards-driven applications such as content libraries for new faculties
- Best practice guides created from working group outputs
- Digital training programme for administrator, trainers, and students
- Rollout of training qualifications for the LMS
- Access to a tier 2 and tier 3 service/technical help desk for faculty champions

#### Phase 4 - Rollout of LMS to third wave of faculties and institutions (Months 7-8)

As above with next 100 tenants for the third wave of faculties and institutions.

#### Phase 5 - Rollout of LMS to fourth wave of faculties and institutions (Months 9-10)

As above with remaining tenants for the fifth wave of faculties and institutions.



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مرفق 4

## MOHE LMS Training Plan\_CDSM\_16\_11\_2020

خطة التدريب على النظام



## **MOHE LMS Proposed Training Plan - CDSM**

For attention of: Dr. Ahmed Daher, Deputy Minister of the Ministry of Education From: Dan Sivak, CDSM Interactive Last updated: 16/11/2020

### **Overview**

This document sets out a typical curriculum of blended training sessions that can be delivered remotely via the LMS Virtual Classroom, Zoom, Microsoft Teams or in person in a meeting room.

The curriculum can be tailored for different roles such as faculty administrators, professors, trainers, or students.

The training is delivered by LMS Training Experts employed in Egypt. The LMS Training Experts will use the "train the trainer" model to training LMS Champions within each faculty and provide all the training materials to be used by these LMS Champions to deliver training to their own cohorts of users.

The sessions, totalling up to 20 hours of training, will make up a formal qualification for users of the LMS which will be created as part of this implementation. The training will also be available as a fully online course for users who prefer that training method.



### **The Training Operation**

CDSM personnel will design and adapt well documented training digital and PDF (paper based) materials to support the face-to-face (F2F) LMS Champions training programme.

CDSM professional personnel will participate in the:

- Identification and selection of Egyptian LMS Training Experts to be employed
- F2F and/or virtual F2F training of LMS Training Experts that will be managed and monitored by management and coordinating staff at LIMS Egypt (Head Office – Cairo)
- Setting up of a central training office staffed in Cairo
- Design and delegation of remote trainers that are clustered in and around key regions for access to Higher Education Institutes (HEIs) for faculty training and training support
- Design effective university/faculty semester faculty training schedules
- Manage and communicate with universities and faculties for training workshops
- Enol trainee LMS Training Experts on accredited Thinqi LMS training programme
- Recognise and reward training module completion
- Ensure professional learning evaluation via observation and reflection activities to ensure LMS Training Experts are delivering to a high quality when in post and working directly with university faculties. This includes 6-month review sessions to consider observation and reflection activities on their professional practice
- Development of the LMS Training Experts that will be responsible for the training of university and faculty LMS Champions



### LMS Training Experts - Identification, Recruitment, and Training

LIMS Egypt and Panworld Education, CDSM's partners for the LMS implementation in Egypt at all levels, will identify and provide two dedicated people per university to act as LMS Training Experts.

This will involve recruitment of 60+ well educated adults with good IT, communication, and interpersonal skills to be trained to an 'Mastery' level as a LMS Training Experts.

The target of the LMS Training Experts will be the train a target of 100,000 LMS Champions across all faculties and universities in Egypt over two years (approximately 100 per faculty).

Typically, LMS Training Experts are talented, digitally literate personnel able to work effectively with learning organisations such as universities and their faculty staff. The LMS Training Experts role is responsible for training university staff to become future trainers and promotors of the LMS in their own respective faculties. The LMS Training Experts role is critical in ensuring the successful implementation and adoption of the MOHE LMS and new digital teaching and learning practices.

LMS Training Experts will attend an interview designed and supported by CDSM and managed by LIMS Egypt implementation personnel. Each LMS Training Expert will have proven experience of working in and with universities, ideally having a rich knowledge and understanding of faculty practice and culture.

LMS Training Experts will be responsible for regularly visiting their designated faculties to deliver engagement and training workshops. They will champion the MOHE LMS and will meet, select, and train future faculty staff.

Effective LMS training programmes provide potential opportunities for university and faculty staff to switch careers, enjoy a secondment or recommend personnel fit for the role. The LMS Training Expert role represents an exciting and alternative career pathway for retention of the best talent within a university/faculty.

From previous successful LMS implementations that CDSM has completed in the UK, several former LMS Training Experts who started their educational careers as educators, are now in leadership positions in schools, school improvement services, teaching universities, and civil service positions.

CDSM will share its experience of best practices relating to the implementation of a successful LMS Training programme, hold stakeholder engagement and awareness sessions, and assist with the design of an effective 'train the trainer' programme in partnership with LIMS Egypt and Panworld Education.



### **Training Rollout Plan**

The following activities will begin upon receipt of contract and issue of a purchase order.

#### Months 1-2

Estimated start: 7th December 2020

- Interviews to hire and train trainers for the LMS training service
- Activity conducted and delivered by LIMS Egypt (National Implementation Expert)
- Individuals trained and able to deliver introductory sessions on the LMS by 01/02/2021
- LMS delivered via cloud on 31/01/2021
- Initial services deployed to support roll-out of training

#### Months 3-10

Estimated start: start of February 2021

- Initial training delivery begins at each university on the 01/02/2020
- We will provide an expert training person to deliver introductory training services for:
  - Administrators & support
  - Teaching staff
- 1 University = 1 full-time designated trainer
- Average of 15 faculties per university
- Up to 15 x 90 minutes training sessions per trainer available per week (60-minute training session plus 30 minutes of questions)
- 1 x 90 min training sessions per faculty, per trainer available per week
- Per month = 10 x 90 mins training sessions for each faculty

#### Months 5-6

Estimated start: start of April 2021

- Further 30 trainers recruited and trained
- 60 fully trained trainers active in the project
- 1 University = 2 full-time designated trainers
- Average of 15 faculties per university
- Up to 15 x 90 minutes training sessions per trainer available per week x2 (60-minute training session plus 30 minutes of questions)
- Therefore 2 x 90 minutes training sessions per faculty, available per week
- Per month = 8 x 90 mins training sessions for each University faculty



### **Blended Training Delivery Architecture and Rollout**

- Adapt training curriculum with and on behalf of customer (MOHE and HEIs)
- Begin formation of training qualification for the LMS via the LMS
  - Design of learning pathways
  - Milestones and achievements
  - Modular badges
- Design and publish training plan and schedule to participant universities and faculties via Events function in LMS
- Supply digital materials via training domain/ Professional Learning Community (PLCs)
  - Pre reading and preparation materials
  - Virtual delivery workshops tracked via attendance registers
  - Post event follow-up contact via PLC and structured virtual classroom sessions

#### Outline of training resources used for the development of university LMS Champions

- Skilled and experienced LMS Training Experts to train LMS Champions in the faculties
- Well-designed learning materials (Pdf)
- Well-structured and presented digital animations of key feature functionality
- Video conferencing for digital synchronous training workshops
- F2f workshops
- Online scheduled webinars for support for LMS Champions



### **Overview of Training Curriculum**

The curriculum consists of general system training which includes the introduction to the functions and benefits of each key feature in the platform that is relevant for all users including teaching staff.

The further modules are then specific modules that focus on roles-based training for the system including:

- Administrator roles
  - Super (University)
  - Admin (Faculty)

Each training session is typically 60 minutes in duration and involves:

- Trainer delivered material
- Digital training material delivered via the LMS itself
- Quizzes
- Videos
- Handouts and takeaways (PDFs)

The remainder of the document will set out the typical sessions that make up the full LMS training curriculum.



### **General Training Curriculum**

The following sets out the general curriculum suitable for all users including teaching staff.

Total time commitment: 16 hours over 16 sessions.

#### Session 1 – Overview of the LMS

- Duration: 60 Minutes
- **Purpose:** The purpose of this session is to familiarise the audience with the LMS and its core features
- Topics in this session
  - Welcome to the LMS
  - o Overview of features available
  - Purpose of features
  - Introduction to the training curriculum
  - Ensure users can access faculty and/or training LMS tenant
- Who is the target audience?
  - $\circ$  Those responsible for training their colleagues in using the system.

#### Session 2 – Classes and PLCs

- Duration: 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability to learn about this feature of the LMS in a guided environment. Ideally the session would have 10 12 participants
- Topics in this session include a demonstration in:
  - Creating Classes
  - $\circ$   $\;$  Sharing class with students and teachers.
  - Accepting requests from users to join class.
  - Viewing class members and managing their roles and actions.
  - Starting and accessing conversations with class members.
  - Creating multiple discussions through classes.
  - Uploading required curriculum to class and organising folders for easy access and retrieval, if desired
  - Creating announcements, including how to 'push' selected announcements to class members.
  - $\circ$   $\,$  Managing subscriptions to class notifications.
- Who is the target audience?
  - $\circ$   $\;$  Those responsible for training their colleagues in using the system.
  - Those responsible for uploading content in the system Teachers and Administrators

#### Session 3 – Working with Classes and PLCs Practical. Q&A

- Duration: 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to use** this feature of the LMS. Ideally the session would have 10 participants
- Topics in this session include the practical completion by participants of tasks covered in session 2.



• Who is the target audience?

• Attendees of session 2

#### Session 4 – Playlists and Question Banks

- Duration: 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to learn about** this feature of the LMS in a guided environment. Ideally the session would have 10 participants
- Topics in this session include a demonstration in:
  - Creating eLearning within the LMS.
  - Organizing playlists.
  - o Adding text and media in different designs in the playlist.
  - Uploading content from local devices into playlists.
  - Adding content from profile files to playlists.
  - Building different quizzes.
  - Sharing quizzes as assignments (formal) or as standalone Playlists (Informal) to classes.
  - Creating questions Banks.
  - Uploading questions in Aiken format to Questions Banks.
  - Creating a mock exam from questions banks.
  - Viewing cohort information on Playlist activity and attainment, including the ability to compare different cohorts – via the reports tool
- Who is the target audience?
  - $\circ$   $\;$  Those responsible for training their colleagues in using the system.
  - $\circ$   $\;$  Those responsible of creating content for the curriculum.
  - $\circ$   $\;$  Those responsible of uploading content in the system.

#### Session 5 – Working with Playlists and Question Bank. Q&A.

- Duration: 60 Minutes
- **Purpose** the purpose of this session is to give practitioners the ability **to use** this feature of the LMS. Ideally the session would have 10 participants
- Topics in this session include the practical completion by participants of the tasks covered in session 10
- Who is the target audience?
  - Attendees of session 10

#### **Session 6 - Assignments**

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to learn about** this feature of the LMS in a guided environment. Ideally the session would have 10 participants
- Topics in this session include a demonstration in:
  - Creating assignments in the LMS
    - From scratch
    - From existing playlists.
  - Requesting a file response.
  - o Applying assignment settings



- Sharing assignments to classes and PLCs
- Viewing the markbook
- Settings in markbook
- $\circ$  Setting extensions
- Who is the target audience?
  - Those responsible for training their colleagues in using the system.
  - $\circ$   $\;$  Those responsible of creating content for the curriculum.

#### **Session 7 - Working with Assignments**

- **Duration:** 60 Minutes
- **Purpose: Purpose** the purpose of this session is to give practitioners the ability **to use** this feature of the LMS. Ideally the session would have 10 participants
- Topics in this session include the practical completion by participants of the tasks covered in session 6
- Who is the target audience?
  - Attendees of session 6

#### **Session 8 - Digital Library**

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability to learn about this feature of the LMS in a guided environment. Ideally the session would have 10 participants
- Topics in this session include the practical completion by participants in:
  - Creating the required taxonomy of specialities for the Digital Library's taxonomy tree.
  - Creating content folders in the Digital Library as a way of availing content to a specific group of users
  - Creating a resource in the Digital Library by uploading content from local computer or via another web service.
  - Classifying resources to ensure they appear in the correct area of the taxonomy
  - Adding tags to resources to ensure they are discoverable via search
  - Publishing resources to the Digital Library's specified content folders (akin to privacy settings).
  - Exploring the roles of contributor and moderated contributor in the Digital Library. The process of a content admin approving content before it can be published
- Who is the target audience?
  - o Those responsible for training their colleagues in using the system.
  - Those responsible of creating content for the curriculum.
  - Those responsible of uploading content in the system.
  - o Those responsible for organising the curriculum in the LMS

#### Session 9 - Working with the Digital Library

• **Duration:** 60 Minutes



- **Purpose:** the purpose of this session is to give practitioners the ability **to use** this feature of the LMS. Ideally the session would have 10 participants.
- Topics in this session include the practical completion by participants of the tasks covered in session 8
- Who is the target audience?
  - $\circ$  Attendees of session 8

#### Session 10 - Courses/ Study Guide

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to learn about** this feature of the LMS in a guided environment. Ideally the session would have 10 participants
- Topics in this session include a demonstration in:
  - Creating a course hierarchy
  - Creating modules and lectures
  - Applying a date and time structure to lectures
  - Uploading materials and content.
  - Using the different methods of organising content: embedding files, curating lists, adding content through tags, and adding online resources.
  - Classifying created study guides against the taxonomy.
- Who is the target audience?
  - Those responsible for training their colleagues in using the system.
  - $\circ$   $\;$  Those responsible of creating content for the curriculum.
  - $\circ$   $\;$  Those responsible of uploading content in the system.

#### Session 11 - Working with Courses/ Study Guide

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to use** this feature of the LMS. Ideally the session would have 10 participants.
- Topics in this session include the practical completion by participants of the tasks covered in session 10
- Who is the target audience?
  - Attendees of session 10

#### Session 12 - Rewards, Events, Articles and Workspace,

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to learn about** these features of the LMS in a guided environment. Ideally the session would have 10 participants
- Topics in this session include a demonstration in:
  - o Skills and Learning Pathways
  - Creating Rewards and allowing users to achieve them
  - o Creating Events.
  - Creating Articles and sharing them across the LMS.
  - Reviewing the Workspace and viewing how the different LMS features are reflected.



- Who is the target audience?
  - $\circ$  Those responsible for training their colleagues in using the system.

#### Session 13 - Working with Rewards, Events, Articles and Workspace

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to use** these features of the LMS. Ideally the session would have 10 participants.
- Topics in this session include the practical completion by participants of the tasks covered in session 12
- Who is the target audience?
  - Attendees of session 12

#### Session 110 - Reports, Learner Record and User Profile

- **Duration:** 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to learn about** these features of the LMS in a guided environment. Ideally the session would have 10 participants
- Topics in this session include the practical completion by participants in
  - Editing user profile and uploading content to own library.
  - Working with Learner Record (ePortfolio) and how to add skills and achievements.
  - Viewing the different reports, the system can provide.
- Who is the target audience?
  - Those responsible for training their colleagues in using the system.

#### Session 15 - Working with Reports, Learner Record and User Profile

- Duration: 60 Minutes
- **Purpose:** the purpose of this session is to give practitioners the ability **to use** these features of the LMS. Ideally the session would have 10 participants.
- Topics in this session include the practical completion by participants of the tasks covered in session 110
- Who is the target audience?
  - $\circ$  Attendees of session 110

#### Session 16 – Virtual classroom

- **Duration** 60 Minutes
- **Purpose:** The purpose of this session is to provide an overview and practical orientation of the virtual classroom in the LMS.
- Topics in this session include an overview of the following topics
  - Creating a virtual classroom
  - Providing access to a virtual classroom
  - Starting a virtual classroom
  - $\circ$  Orientation of tools that can be used in a virtual classroom
  - o Administering an in progress virtual classroom
  - Who is the target audience?
    - Those responsible for training their colleagues in using the system.



### **Administrator Training Curriculum**

The following sets out the administrator specific curriculum suitable for faculty and super admins.

Total time commitment: 20 hours over 20 sessions.

#### Admin Session 1 – Overview of the LMS

- **Duration:** 60 Minutes
- **Purpose:** The purpose of this session is to familiarise the audience with the LMS and its core features
- Topics in this session
  - $\circ$  Welcome to the LMS
  - Overview of features available
  - Purpose of features
  - Overview of the admin features available
  - o Introduction to the training curriculum
  - o Ensure users can access faculty and/or training LMS tenant
  - $\circ~$  Ensure users can access admin features of their faculty LMS tenant
- Who is the target audience?
  - Administrators Those responsible for administering the system.

#### Admin Session 2 – Organization Structure

- **Duration:** 60 Minutes
- **Purpose:** The purpose of this session is to show the building blocks of the Organization structure in the LMS and how to build the hierarchy of users.
- Topics in this session
  - o Organization structure and hierarchy of specialities and users.
  - o Role creation and allocation
  - Custom roles creation
- Who is the target audience?
  - o Administrators Those responsible for administering the system

#### Admin Session 3 - Administrator Training – Part 1: Users

- **Duration** 60 Minutes
- **Purpose:** The purpose of this session is to provide an overview and practical orientation of the administration panel in the LMS.
- Topics in this session include an overview of the following topics
  - o Adding users
  - Resetting passwords
  - Applying permissions
  - Adding, editing, and auditing group membership
  - Viewing system metrics usage statistics etc by using the system tab on the workspace.



- Who is the target audience?
  - Administrators of the system (not teaching staff)

#### Admin Session 4 - Administrator Training – Part 2: Content

- **Duration** 60 Minutes
- **Purpose:** The purpose of this session is to provide an overview and practical orientation of the administration panel in the LMS.
- Topics in this session include an overview of the following topics
  - Creating content folders
  - Providing access to content folders
  - o Creating and managing classification of content
  - o Manage resources
  - o Adding external LTI apps
  - Viewing system metrics for content
- Who is the target audience?
  - Administrators of the system (not teaching staff)

## Session 5 - Administrator Training – Part 3: Groups, Events & Customisation

- **Duration** 60 Minutes
- **Purpose:** The purpose of this session is to provide an overview and practical orientation of the administration panel in the LMS.
- Topics in this session include an overview of the following topics
  - o Manage groups
  - Manage users in groups
  - o Manage events
  - Viewing system metrics for groups and events
  - Configure menu
  - o Customise text
  - Creating CMS pages
- Who is the target audience?
  - Administrators of the system (not teaching staff)

#### Session 6 - Administrator Training – Dev Ops and Site

- Duration 60 Minutes
- **Purpose:** The purpose of this session is to provide an overview and practical orientation of the administration panel in the LMS.
- Topics in this session include an overview of the following topics
  - o Custom Emails
  - o EULA
  - o Release Notes
  - o Localisations
  - o Launch Pads
- Who is the target audience?
  - o Administrators of the system (not teaching staff)



### **Continue with Sessions 2-16 of General Curriculum**



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مرفق 5

## MOHE LMS Technical Support and Security Document \_CDSM\_16\_11\_20

خطة الدعم الفني و تأمين النظام

# MOHE LMS Technical Support & Security Document - CDSM

FAO: Dr. Ahmed Daher, Deputy Minister of the Ministry of Education

From: Dan Sivak, CDSM Interactive

Date: 16/11/2020

- CDSM will support the project for the tenure of the project
- This means a technical team headed up by CDSM's Programme Manager, Mr Glenn Booth and Head of Technology, Engineer Nik Goile (who has extensive experience of working with our localisation partners in Egypt) will liaise with universities and faculties via an MOHE organised and maintained management committee
- The first 12 months of the project will be delivered from AWS cloud services
- Any technical liaison will be available to support the universities and faculties in ensuring that their administrators, teaching staff and students can access the service
- Harmonisation of browser access and device access will take place to ensure a manageable implementation where services can be tested, validated, and rolled out effectively across the MOHE estate
- MOHE will ensure that Institutional bandwidth provision will be sufficient that end users can access the LMS and its service
- A minimum specification will be agreed for access and the uploading and transferring of files for end users of the LMS and its service.
- This document is subject to further discussions to finalise the complete agreement but indicates our intentions for MOHE

# cdsm 📻

## **Technical specification**

Thinqi LMS is built on a microservice architecture and can be hosted in a load-balanced, highavailability cloud or local data center environment.

The servers used are Windows 2019 and Ubuntu Linux. The application layer runs as Alpine Linux Docker containers in AWS ECS or Kubernetes.

The application itself consists of ASP .NET Core and NodeJS REST APIs with a React and Backbone JavaScript application layer for the website. A high-availability reverse proxy layer ensures high performance website speeds.

The data layer for the application is a high-availability MongoDB database. It also uses a high-availability Elasticsearch cluster to provide fast search capability.

Specific AWS services are leveraged to increase system resilience and reduce network latency for users.

These include:

- S3 highly redundant and available storage
- CloudFront highly scalable content website caching
- **SQS** highly redundant and available queues to insure against single points of failure and ensure integrity of internal system procedures

### Security and data protection

Protecting our end users and their data is our highest priority. Thinqi LMS is built to the highest cybersecurity standards and follows the most current industry standards. CDSM Interactive is ISO 27001 and Cyber Essentials certified.

All communication with the website is conducted via HTTPS using 2048-bit encryption. The load balancing layer only supports secure protocols in line with UK government recommendations. Any outdated protocols such as SSL 2.0, SSL 3.0, TLS 1.0 and TLS 1.1 are not supported.

The application is protected by an AWS CloudFront distribution to enable DDoS protection and a Web Application Firewall (WAF) layer to ensure low latency access and protection from many forms of attack. AWS Guard Duty is constantly analysing log information inside and outside of the network to identify and alert us to any malicious activity around the LMS.

The system implements several layers of logging to allow forensic analysis of any operational failure or interruption. This includes:

Remote application monitoring using AWS CloudWatch

- Remote server monitoring using New Relic Infrastructure
- Website availability tracking using New Relic Synthetics
- Website traffic logs via IIS, Nginx and Varnish
- Website traffic logs via AWS ELB and CloudWatch
- System access logs via Windows Event Log
- System access logs via AWS CloudTrail

Thinqi LMS is penetration tested at least twice annually by independent CISSP certified cyber security consultants.

The LMS is also security audited every year by Welsh Government as part of our UK provision. This audit is reviewed by the National Cybersecurity Centre (NCSC). Similar testing and auditing can be put in place in line with Egyptian Government standards.

The data for each faculty tenant is stored on encrypted disks and logically separated from other tenants.

The software is designed to meet GDPR standards and similar data rights can be provided to Egyptian users on request:

- 1. The right to be informed
- 2. The right of access
- 3. The right to rectification
- 4. The right to erasure
- 5. The right to restrict processing
- 6. The right to data portability
- 7. The right to object
- 8. Rights in relation to automated decision making and profiling.

Access to the LMS is controlled by each faculty's own Identity Provider (IdP). This means they have total control over their users' access. Integration with the IdPs is done in line with industry standards such as WS-Federation or SAML.

## Data storage in Thinqi LMS

Data storage for the Thinqi LMS application is powered by MongoDB and Elasticsearch, two popular modern database technologies that allow incredibly fast search and retrieval across massive data sets.

Our application is customised to handle the throughput required by large sites and in a high availability and redundant configuration to ensure up-time and reliability.

Elasticsearch is configured as a multi-availability zone replica set and is backed up daily. Elasticsearch can also be regenerated from scratch from the source MongoDB data.

The core application data is stored in MongoDB which acts as the 'source of truth' for all parts of the application stack. MongoDB is configured as a three node, cross-availability zone replica set as default. As usage of the site grows this will be scaled to a nine node, sharded configuration (3 config servers + 2 shards of 3 server replica sets). This configuration allows an extremely high level of redundancy and scalability in line with the projected usage of the national LMS.

All MongoDB disks are also 'encrypted at rest'. This means that only authorised CDSM staff with access to authorisation keys (also stored encrypted) can access the databases.

## Infrastructure configuration

The following topology diagram shows a high-level overview of how the application infrastructure fits together within the AWS cloud environment:



### **Browser support**

Thingi LMS and all its features will work across all commonly used modern web browsers.

For the purposes of security and requisite functionality, some older browsers will not be supported. For example, to support HTTP Strict Transport Security (HSTS), browsers such as Internet Explorer 8 and 9 cannot be supported.

Where older browsers do not support newer features, such as CSS variables, Thinqi LMS will, where possible, gracefully degrade to support the browser.

CDSM will actively work with the MOHE to evaluate browser support to ensure the best balance of user experience and security. For example, if MOHE are required to change the security protocols provided by Thinqi LMS, CDSM will support them in assessing the impact of these changes on the existing user population and assessing the revised browser requirements.

## **Device support**

Thingi LMS supports a wide range of digital devices and platforms.

Thinqi LMS is fully responsive for mobile devices and modern web browsers, with the layout able to adjust depending on whether the user is viewing it in landscape or portrait mode. The user interface will also adjust and optimise for the space available.

For the purposes of security and functionality, some old devices will not be supported. For example, to support connections meeting the TLS 1.2 security protocol, some devices such as Android phones or tablets released before 2014 will not be supported.

Where older devices do not support newer features, such as CSS variables, Thinqi LMS will gracefully degrade, where possible, to support the browser.

CDSM will actively work with MOHE to evaluate device support to ensure the best balance of user experience and security. For example, if MOHE are required to change the security protocols provided by Thinqi LMS, CDSM will support them in assessing the impact of these changes on the existing user population and assessing the revised device requirements.

If content formats are used by faculties such as Flash files that are not adaptive or are not supported by modern browsers, CDSM cannot accept liability for this content.

## Help desk service

The successful delivery of the contract will require a close working relationship between CDSM, LIMS Egypt and MOHE to provide excellent end-user support.

Upon delivery of the contract, an experienced Customer Success Manager will become a committed representative of MOHE within CDSM.

The Customer Success Manager is responsible for directing the Customer Success team with a clear vision of the digital goals for the contract, outlining expectations and a definition of what success means for MOHE.

In addition, CDSM will provide MOHE with an excellent support provision specifically designed to drive success. CDSM's Customer Success team will work closely with the programme manager and MOHE's first line support team to ensure a seamless experience for users.



#### **Remote Support**

CDSM prides itself on an excellent level of uptime for its hosted systems. It can confirm that the system will be available 99.99%, except in the case of previously agreed maintenance. For similar size applications to this contract, CDSM has achieved over 99.99% uptime over the last 12 months.

With prior engagement with national education providers and experience in running a secondtier technical help desk, MOHE can be fully assured that availability and continuity of service will be a primary focus in delivering this contract.

First tier support will be offered by localised implementation and support partners in Egypt

#### Self-Serve Support

Due to previous work with education ministries in delivering a digital solution, CDSM has experienced an increase in the transition from users accessing Tier 1 support to self-serve support (Tier 0) for addressing basic system queries. CDSM will provide support to MOHE to maintain their self-serve support provision, with Tier 1 support reserved as an escalation point whenever additional problem solving is required.

#### **Support Package**

CDSM will provide a second line technical support package for MOHE as part of the contract.

All support requests will be recorded in Zendesk, an online web-based support system. Zendesk provides the facilities for authorised users to view call status, assign and escalate calls, and integrate historical call data into a 'knowledge base' to ensure prompt resolution.

MOHE will also have access to the system to monitor incidents.

#### **Support Service Overview**

CDSM will provide the following support service in line with the required service levels in the contract:

- An agreed budget of incidents per month per faculty (number TBC) these must be registered in supplier's version of Zendesk
- Issue and confirmation of priority status when CDSM acknowledges the issue
- Telephone, email, and web support in which CDSM will provide general information, problem determination, isolation, and verification
- Authorisation of selected customer contacts per faculty (number TBC)
- A supplier team member assigned to each support incident raised

## **Technical delivery**

Any features or changes will be delivered in line with CDSM's processes for:

- 1. Change management
- 2. Release management
- 3. Deployment

#### **Change management**

Once functionality or change requests are ready to be deployed to the live environment, CDSM follows a change management process which complies with ITIL standards. This process ensures that all live updates to the service are completed with minimal disruption. Internally, CDSM uses an Agile project management tool, TargetProcess, as part of change and release management processes.

TargetProcess is an integrated web-based solution that helps software development teams manage projects in an Agile manner by simplifying project planning, tracking and quality assurance processes. All incidents, issues and work packages are held in TargetProcess, and are graded and prioritised to be completed.

Once a work package is tested and signed off on the UAT environment, a decision is then made with the programme manager and MOHE stakeholders to confirm when this will be deployed to the live environment in line with the previously agreed schedule.

Where an urgent or unplanned work package is required by MOHE, CDSM will schedule it with the next milestone release or may agree an 'ad-hoc' "hotfix" at a time agreed with MOHE. This will ensure an appropriate solution to the problem is provided as quickly as possible for the benefit of stakeholders and end-users.

#### **Release management**

CDSM's release and deployment management process aim to build, test, and deliver robust and high-quality services to our customers. Release management ensures releases are deployed into operation and deliver high value to MOHE.

A release is split into several phases. The initial phase begins where new features or change requests are gathered and discussed by MOHE and CDSM. The outcomes of this are an agreed list of deliverables and associated timelines that are approved in writing by MOHE.

Approval of the new features or change requests is followed by planning, design, build, configuration, and testing. The primary objective of this is to create a release candidate, including the creation of a test plan for the milestone stage.

The test plan for the release candidate is made up of several phases including:

- Manual functional testing
- Automated API, security, and integrity testing
- Automated testing for any migration processes (to ensure integrity of migrated data)
- Accessibility review and testing
- Arabic language review (where applicable)
- Security review and testing (including audit by tools such as Burp Suite)
- Regression testing
- Cross-browser and cross-device testing

Once the release candidate is signed off, the deployment phase can begin. This involves releasing all new work from CDSM's staging environment to the live platform.

Following this, the release then enters the support phase where documentation is provided to guide customers with the use of any new functionality.

All parts of the process are documented should the information be required at any point during the release.

#### Deployment

A User Acceptance Testing (UAT) environment is available to MOHE. New functionality is deployed here at the end of each iteration (every two weeks) so that MOHE can check new features and changes early and often.

This allows MOHE to view and input on functionality before it is released to the live environment. MOHE can input during the development cycle to ensure the delivery matches their expectations.

Once new functionality and change requests are ready to be deployed to the live environment, CDSM follows a change management process which complies with ITIL standards. This process ensures that all live updates to the service are completed with minimal disruption.

Once the release has been deployed and validated by CDSM's QA team, CDSM will initiate a handover of the service between the Programme Manager and MOHE. This includes training and documentation to support any new functionality.

As part of a regular release cycle, and where possible, CDSM aims to deploy new software functionality, enhancements in existing functionality, and issue resolution every six weeks to the live platform. Each six-week release period consists of three two-week iterations where new work is designed, developed, tested, and submitted to staging versions of the product set.



Egyptian Knowledge Bank بنك المعرفة المصري

مرفق 6

## EKB Business Continuity and Disaster Recovery\_CDSM\_16\_11\_2020

نظام ادارة الكوارث



#### Backup and Disaster Recovery

The Thinqi LMS infrastructure is built and managed using "infrastructure as code" tools such as CloudFormation and Chef. These tools allow an environment to be quickly replicable from scratch or from a defined backup point. This includes building and configuring the entire network and security perimeter as well as bootstrapping and configuring each server used in the stack.

Data within Thinqi LMS (when hosted in AWS) is stored in a high availability environment replicated across three availability zones (separate data centres) in the preferred region. This means that if one or two data centres go offline then data is still available to the solution and it remains operational.

In addition to this, all servers are backed up daily (or more often if required by the customer) as full drive snapshots.

These snapshots can be used to fully restore the data in the solution very quickly, providing a very fast Recovery Time Objective (RTO) and Recovery Point Objective (RPO) of a maximum of eight hours.

All snapshots are maintained for a period of one month before being destroyed (this can be longer if requested). All snapshots are also stored in a redundant manner where they are replicated across the three data centres so that should one or two of the region's data centres become unavailable, then backup snapshots would still be available to the remaining data centre. They are also replicated across two AWS regions, meaning that a full system restore can be carried out even if entire region is lost.

All uploaded files are stored in AWS S3 which provides 99.999999999% durability. These files are also automatically replicated across two AWS regions for additional resilience.

These processes are regularly tested through the launch of full clones of live platforms for testing and user acceptance.



Egyptian Knowledge Bank بنك المعرفة المصري

مرفق 7

## THINQI LMS\_local\_Client\_List

تفاصيل الهيئات المحلية التى تم التعامل معها لانشاء نظام ادارة التعلم



#### الهيئات المحلية التى تم التعامل معها لإنشاء نظام إدارة التعلم

	الرابط	تقديم العرض الفنى	تم التنفيذ	تحت التنفيذ	اسم الهيئة	
lms.ekb.eg study.ekb.eg			تم التنفيذ		وزارة التريية و التعليم و التعليم الفني	THE REAL PROPERTY OF LEVEL
https://mohp-hcms.ekb.eg/ https://mohp.ekb.eg/			تم التنفيذ		وزارة الصحة * الزمالة المصرية * المجلس الطبى	
https://cairomed.ekb.eg			تم التنفيذ		جامعة القاهرة ، كلية طب القصر العيني، الدراسات العليا	الموجة القرابي
https://zagazigmed.ekb.eg			تم التنفيذ		جامعة الزقازيق، كلية الطب	ACCAZING UNITED
https://svuqena.ekb.eg			تم التنفيذ		جامعة جنوب الوادي، كلية الطب	جامعة جنوب الوادي
https://menoufiamed.ekb.eg			تم التنفيذ		جامعة المنوفية، كلية الطب	جامعة المنوفية



#### الهيئات المحلية التى تم التعامل معها لإنشاء نظام إدارة التعلم

الرابط	تقديم العرض الفنى	تم التنفيذ	تحت التنفيذ	اسم الهيئة	
https://helwanmed.ekb.eg		تم التنفيذ		جامعة حلوان، كلية الطب	جارمة طوات
https://suezmed.ekb.eg		تم التنفيذ		جامعة السويس، كلية الطب	Stranger
https://kafrelsheikhmed.ekb.eg/		تم التنفيذ		جامعة كفر الشيخ، كلية الطب	جامعة كفر الشيخ afreisheikh University
https://alazharmed.ekb.eg/		تم التنفيذ		جامعة الازهر، كلية الطب	REAL REAL PROPERTY OF THE REAL
https://mansouramed.ekb.eg/		تم التنفيذ		جامعة المنصورة، كلية الطب	
https://ainshamsmed.ekb.eg/		تم التنفيذ		جامعة عين شمس، كلية الطب	AIN SHAMS UNIVERSITY



#### الهيئات المحلية التى تم التعامل معها لإنشاء نظام إدارة التعلم

ط	الرابع	تقديم العرض الفنى	تم التنفيذ	تحت التنفيذ	اسم الهيئة	
https://assiutmed.ekb.eg/			تم التنفيذ		جامعة اسيوط، كلية الطب	
https://alexmed.ekb.eg/			تم التنفيذ		جامعة الاسكندرية، كلية الطب	ALL THE REAL PROPERTY OF THE P
https://mma.ekb.eg/			تم التنفيذ		الاكاديمية الطبية العسكرية	
		تم تسليم العرض الفني والمالي			اكاديمية الشرطة للدراسات العليا	
		تم تسليم العرض الفني			وزارة الثقافة (اكاديمية الفنون)	علمت الحريمية الف وز ACADEMY OF ARTS
		تم تسليم العرض الفني			دار المعارف	می ار المعارف تاسست ۱۸۹۰


## الهيئات المحلية التى تم التعامل معها لإنشاء نظام إدارة التعلم

الرابط	تقديم العرض الفنى	تم التنفيذ	تحت التنفيذ	اسم الهيئة	
https://deltamed.ekb.eg/		تم التنفيذ		جامعة الدلتا	Delta Liniversity For Science and Technology Landi Liniversity
https://galalamed.ekb.eg/	تم تسليم العرض الفني		تحت التنفيذ	جامعة الجلالة	
	سوف يتم تسليم العرض غدا 18 نوفمبر 2020 بناء على موعد رسمي تم تحديده من قبل المهندس حسام شوشان			جامعة النهضة	NUERSITY N BEN I SUEF Gggurght, Gaadilaada
	تم تسليم العرض الفني			وزارة التعليم العالى و البحث العلمي	جمورية معين العربية بمورية معين العربية في المرابعة المعرفة العربية العربية العربية العربية العربية المعرفة الع



Egyptian Knowledge Bank بنك المعرفة المصري

مرفق 8

## Medical Faculty LMS Stats\_20201112

احدث احصائيات الاستخدام لكليات الطب من الجامعات المختلفة





## Page Views per University

Period	Ain Shams	Al Azhar	Alexandria	Assiut	Cairo	Delta	Galala	Helwan	Kafr El- Sheikh	Mansoura	Menoufia	ММА	South Valley	Suez	Zagazig
Sep-19	453	152	9	327	136			162		17					357,098
Oct-19	703	505	64	308	56			305		50					631,839
Nov-19	121	12,755	134	70	33			1,473		155					163,646
Dec-19	38	8,588	1	82	-			46		134					90,842
3 Jan to 9 Jan	5	105	54	12	2			12		5					4,620
10 Jan to 16 Jan	15	42	-	8	-			15		-					2,864
17 Jan to 23 Jan	-	240	-	9	2			5		-					3,932
24 Jan to 30 Jan	-	176	-	5	-			4		1					2,786
31 Jan to 6 Feb	-	155	-	8	-			-		-					5,974
7 Feb to 13 Feb	2	133	-	9	-			2		-					13,953
14 Feb to 20 Feb	62	115	-	5	-			1		-					19,681
15 Feb to 27 Feb	-	53	-	1	-			1		-					73,942
28 Feb to 5 Mar	3	580	4	2	1			123		-					59,326
6 Mar to 12 Mar	28	990	17	23	17			364		18					26,316
13 Mar to 19 Mar	-	36	-	-	-			12		-					18,151
20 Mar to 26 Mar	4	3,717	-	1	53			6,088		160					62,851
27 Mar to 2 Apr	1	1,227	-	-	243			2,569		64					163,509
3 Apr to 9 Apr	-	421	-	-	588			687		-					256,614
10 Apr to 16 Apr	168	704	-	1	200			5,583		61					112,984
17 Apr to 23 Apr	-	434	-	-	243			5,563		-					88,079
24 Apr to 30 Apr	48	184	41	37	191			2,483		23					42,461
1 May to 7 May	3	183	-	-	531			454	7	-	19			8	94,032
8 May to 14 May	21	56	-	-	311			515	5	-	4			3	68,403
15 May 21 May	19	90	3	4	461			1,547	3	6	3			10	25,801
22 May to 28 May	7	52	5	6	150			1,196	4	6	5			18	14,421
29 May to 4 June	-	19	-	-	209			1,456	-	-	-			34	63,692
5 June to 11 June	16	9	-	-	924			441	-	1	-			22	46,363
12 June to 18 June	-	49	-	-	937			152	-	-	-			307	46,894
19 June 25 June	-	56	-	-	1,711			112	34	1	-			5	17,022





## Page Views per University

Egyptian Knowledge Bank بنك المعرفة المصري

Period	Ain Shams	Al Azhar	Alexandria	Assiut	Cairo	Delta	Galala	Helwan	Kafr El- Sheikh	Mansoura	Menoufia	ММА	South Valley	Suez	Zagazig
26 June to 2 July	25	182	7	8	3,009			3,017	7	7	7			1,169	131,127
3 July to 9 July	25	92	17	23	3 <i>,</i> 395			4,123	20	20	20			1,025	14,142
10 July to 16 July	17	30	8	9	3,196			8,884	44	10	12			301	24,681
17 July to 23 July	1	9	-	-	3,066			4,983	2	1	21			640	19,939
24 July to 30 July	2	51	1	1	4,072			4,494	-	-	50			197	10,672
31 July to 6 Aug	1	4	-	-	1,113			2,102	5	-	778			218	13,979
7 Aug to 13 Aug	2	34	-	-	1,499			5,449	28		419			918	13,140
14 Aug to 20 Aug	-	-	-	-	949			2,041	7	1	1,473		537	1,187	12,641
21 Aug to 27 Aug	-	23	-	-	2,249			2,569	-	-	1,291		648	77	13,893
28 Aug to 3 Sep	1	17	-	-	1,571			7,264	-	-	3,676		1,513	259	12,880
4 Sep to 10 Sep	2	5	-	-	2,555			4,602	1	-	3,788		80,408	153	8,446
11 Sep to 17 Sep	62	162	58	67	7,157			4,003	54	30	1,783		47,077	550	5,955
18 Sep to 24 Sep	9	71	6	8	9,432			1,858	6	9	17,167		17,811	1,470	38,680
25 Sep to 1 Oct	1	514	-	-	12,837			1,131	1,425	2	11,396		20,682	1,827	28,458
2 Oct to 8 Oct	30	193	-	-	11,883	97	88	820	1,044		146,693	225	66,714	3,274	27,847
9 Oct to 15 Oct	32	56	26	23	5,828	42	17	2,772	317	20	444,084	16	120,289	129	26,404
16 Oct to 22 Oct	35	165	13	20	5,513	27	17	15,986	25,585	13	400,320	18	244,345	312	106,669
23 Oct to 29 Oct	8	25	5	4	5,238	4	1	355,272	6,141	6	257,339	2	178,860	106	47,197
30 Oct to 5 Nov	1	7	-	-	8,291	32	-	393,915	5,883	-	207,761		120,817	9	28,311
6 Nov to 12 Nov	-	7	-	-	52,104	67	64	356,048	5,043	-	271,775	129	97,332	18	50,546
Total	1,971	33,473	473	1,081	151,956	269	187	1,212,704	45,665	821	1,769,884	390	997,033	14,246	3,213,703
	Ain Shams	Al Azhar	Alexandria	Assiut	Cairo	Delta	Galala	Helwan	Kafr El- Sheikh	Mansoura	Menoufia	ММА	South Valley	Suez	Zagazig