Open Concept Lab

OCL setup in OpenMRS

- 1) Download omod from link. We used 1.3.0 and 1.2.6 versions. Both worked fine with openMRS 2.1.6.
- Upload the omod in Administration -> Modules (Manage Modules) -> Add or Upload Module -> choose the module and upload.

Administration ->Open Web Apps Module -> Manage Apps

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0	Open Concept Lab UI for OpenMRS OpenConceptLab module						AdamGrzybkowski		1.2.6- SNAPSHOT	×
0	Bed Management Admin UI Admin UI for the Bed Management module						sanishmaharjan		0.1.0	×
Showing 1 to	2 of 2 entries								Previou	ıs 1 Next

Administration -> Modules (Manage Modules)

Modules

NOTE: Adding, removing, or starting modules will restart OpenMRS, meaning that $\boldsymbol{\epsilon}$

Add or Upgrade Module	Check for Upgrades

Manag	Manage Modules							
Action	Name	Version	Author					
î î î í í	Initializer	2.3.0- SNAPSHOT	Mekom Solutions					
î î î í í	Open Concept Lab Module	1.3.0	Nicholas Ingosi Magaja					
î î î	Bacteriology Module	1.2.0	Bahmni					
	Reporting	1.16.0	Partners In Health					

After uploading we can see the open concept lab module in both manage modules and manage apps section.

- Click on Open Concept Lab in manage app section. It will take you to this <u>https://localhost/openmrs/owa/openconceptlab/index.html#/</u>
- 4) Click Setup Subscription
 - a) Enter subscription url like https://api.demo.openconceptlab.org/users/deepthi/collections/TestDictionary/dic-0.7/
 - b) Enter token which is in <u>ocl</u> / <u>openmrs</u> profile API Token. Both are the same anyways.
 - c) Click on **Save changes**.
- 5) Then Click **Import from subscription server**. This will import our concepts into openmrs.

Sign Up flow

- Sign up for OCL here→<u>https://app.openconceptlab.org/</u>. This same credentials is enough for the openmrs ocl too→ <u>https://openmrs.openconceptlab.org/</u>
- Navigate to the tool menu on the left side of the home screen. Click on the OpenMRS Dictionary Manager which will redirect you to this <u>https://openmrs.openconceptlab.org/</u>



 So these two links <u>https://app.openconceptlab.org/</u> and <u>https://openmrs.openconceptlab.org/</u> are inter-related. Changes made in the openmrs ocl link gets reflected in the app ocl link and also vice-versa.

Creating a dictionary in OCL

• Navigate to the Dictionary in the menu on the left side and click on the + symbol at the right-side bottom of the page. Fill in the details and submit the form to create a new dictionary.

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Creating concepts in OCL

- Concepts can be created in two ways
 - 1) Custom concepts
 - 2) Import from existing Concepts

- a) Pick Concepts (We have to select one by one)
- b) Add bulk concepts (We have to provide correct ID to import concept)

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	Public	
	Preferred Language	test-0.1 24 Jun 2022 rel-1
	English (en)	
Your Profile	Other Languages	CREATE NEW VERSION
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Logout	Linked Source /users/deepthi/sources/test/	
(deepthi)	Custom concepts created for this dictionary will be kept here.	

• Click on View dictionary

• Now click on **View concepts** in concepts section the below screen appears.Click on the + icon at the right bottom to create concepts.

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		Swimming Accident	Diagnosis	N/A	CIEL	150328		Classes
							·	Diagnosis
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• Now you will be able to see the options below. Choose Create Custom Concept



• Choose any concept class

Diagnosis Concept

Symptom/Finding Concept

Procedure Concept

Question Concept

Drug Concept

Test Concept

LabSet Concept

MedSet Concept

ConvSet Concept

Other kind

• Fill in the **Create Concept form** and give **Submit** it will create the concept and you can see them in the **Concept Dashboard**

← Create concept	:				
	Concept Details	1-a4a60d06441c			
	Names				
	Name	Type [Fully Specified]	English (en)	Preferred in language	· :
	ADD NAME				
	Descriptions	Language	Preferred in language		

- Similarly we can create concept from Import existing concept
 - a) By Picking Concepts

← Import existing concept fro	m CIEL				SWITCH SOURCE (CURRENTLY CIEL)
1 selected				+	We can choose the source like CIEL, MSF,etc APPLY FILTERS CLEAR ALL
Name	Class	Datatype	Source	ID	Search filters
Queensland fever	Diagnosis	N/A	CIEL	158615	Classes
Puerperal Fever	Diagnosis	N/A	CIEL	113511	Diagnosis Symptom/Finding
Tick-Borne Fever	Diagnosis	N/A	CIEL	112373	Procedure
Mosquito-Borne Fever	Diagnosis	N/A	CIEL	115681	Question
Malarial Fever	Diagnosis	N/A	CIEL	116125	Drug
Grain Fever	Diagnosis	N/A	CIEL	139297	LabSet
Ephemeral Fever	Diagnosis	N/A	CIEL	121039	MedSet
Chikungunya Fever	Diagnosis	N/A	CIEL	120742	ConvSet
Streptobacillary Fever	Diagnosis	N/A	CIEL	125825	Finding
Wesselsbron Fever	Diagnosis	N/A	CIEL	122873	Anatomy Misc
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b) By Bulk uploading Concepts

← Add concepts in bulk from C	SWITCH SOURCE (CURRENTLY CIEL)	
	Please provide IDs for the CIEL concepts to add. IDs should be separated with a space, comma or new lines. For example, you can copy and paste from a spreadsheet column. e.g 1000, 1001, 1002.	We can choose the concept source like CIEL, MSF,etc
	1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007	
	Add concept ID's that are needed to be imported from the specific source	
	ADD CONCEPTS	

Create a version

• Go to your dictionary dashboard. Click **Create New Version.** Fill the form and create version.

	Create new version
Versions ID Date Created Description Release Status Actions	ID Release
Click on the below button to create new version	No
	CANCEL SUBMIT

- Also we need to go to this https://app.openconceptlab.org/,
 - Go to dictionary
 - Go to versions & expansions
 - Click on **Export Version**
 - Click on **Queue Export** (This step is important, then only we will be able to see concepts in our openmrs view dictionary)

/ 🌒 🖉 🗊	± Q ∎
	Concepts CSV
	Mappings CSV
	Export Version

Note: A version has to be created, so that we can use that subscription url in our openmrs page to import these concept collection

Openmrs Initializer:

We are able to use openmrs initializer for importing these ocl concepts into our bahmni. We need to follow this <u>doc</u>. We should not rename the zip file. To import CIEL dictionary using initializer follow the below steps:

- Go to CIEL sources (https://app.openconceptlab.org/#/orgs/CIEL/sources/CIEL/)
- Click versions
 (<u>https://app.openconceptlab.org/#/orgs/CIEL/sources/CIEL/versions</u>)
- Click on the export version in recently released version
- You will get the below pop-up and 'Click here' to download the zip.
- Copy paste the zip in your OCL directory of initializer configuration folder.
- Then restart/start the openmrs.

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	Columbia International eHealth Laboratory	S Public	
	Columbia International eHealth Laboratory Concept Dictionary		
	Source Type: Interface Terminology Supported Locales: en Contact: "Andrew S. Kanter (ask2164@cumc.columbia.ed AutolD Mapping ID: sequential	du)"	
	Last updated on 06/28/2022 by askanter G Created on 03/29/2021 by oc	ladmin S External ID: 249b13c	:8-72fa-4b96-8d3d-b2
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Issues Faced:

- In OCL, we are not able to select class type as 'Image' for creating a concept.
- Bulk upload concept through csv.
- Facing issue with similar reference term for mapping multiple concepts with importing CIEL dictionary into bahmni. Created a jira card(<u>https://bahmni.atlassian.net/browse/BAH-2061</u>)

Questions:

- While creating a concept, we search for the concept name in OCL and we get a list of concepts from different sources. So how do we select a particular concept(exact match or similar results)? (For example: In searching for a **Patient Document** we got these results Patient summary Document, Patient data Document, Patient transportation request Document, Patient safety report Document. Since there were not an exact match with the concept we wanted to create, so we created a custom concept)
- Should we look for a concept without mapping's, so that our concept(ui) hierarchy does not get disturbed. (For example: For this concept <u>link</u>, should we use this along with the set member's or we can create custom concept)
- Is there CIEL only preferred source or anything else can be chosen.
- Our understanding towards Bahmni OCL account structure for concept handling.

 $CIEL \rightarrow Bahmni \rightarrow Bahmni India Distro$

Fever \rightarrow Fever \rightarrow Fever (Common to Bahmni)

Referral Document \rightarrow Referral Document \rightarrow Referral Document (For Bahmni India Distro)

Solution for some issue we faced:

 While trying to import CIEL concepts using open concept lab omod through Subscription-Url / Initializer in OpenMRS. We were getting this issue

Illegal mix of collations (latin1_swedish_ci,IMPLICIT) and (utf8_general_ci,COERCIBLE) for operation '='

Caused by: java.sql.SQLException: Illegal mix of collations (latin1_swedish_ci,IMPLICIT) and (utf8_general_ci,COERCIBLE) for operation '=' mvsql.idbc.SQLError.createSQLException(SQLError.iava:1086) ~[mvsql-connector-iava-5.1.28.iar:?]

Solution: It's an issue with the configuration of the database. Most likely what is happening is that our connection.url property in our openmrs-runtime.properties has something like this on the end: useUnicode=true&characterEncoding=UTF-8, which tells OpenMRS to connect to your database using UTF-8 as the default encoding and unicode as the default collation; however, our database is setup to use the latin1_swedish_ci collation (which is the default for MySQL 5.x).

Using mysql.cnf file:

We recommend setting up your MySQL server to use UTF-8 as the default character set and utf8 general ci as the collation (the link has notes on how to set this up in my.cnf).

Using MySQL console:

To do this with an existing database, you need to run commands below

ALTER DATABASE openmrs CHARACTER SET = utf8; ALTER DATABASE openmrs COLLATE = utf8 general ci;

Using Docker-compose:

So in our case we are using docker-setup for our development purpose, so we added this line in openmrsDb service of docker-compose.yml

command: --character-set-server=utf8 --collation-server=utf8_general_ci

References:

- https://wiki.openmrs.org/display/docs/Using+UTF-8+Characters (Using UTF-8 Characters in OpenMRS)
- <u>https://www.voutube.com/watch?v=OkDM10YR03Y</u>
- https://docs.openconceptlab.org/en/latest/
- <u>https://talk.openmrs.org/t/ocl-and-connector-annovances-and-problems/14633</u>
- https://api.openconceptlab.org/orgs/CIEL/sources/CIEL/v2022-05-21/ (CIEL dictionary) subscription URL)