

# Reference Application 2.8.0

## Overview

**Reference Application 2.8.0** is a release of our new **Reference Application**, a state of the art implementation of OpenMRS, which may serve as a solid base for new implementations. It is designed using the latest [UI 3.x](#) and [App Framework](#), which make it easy to add new functionality as small apps in a similar fashion to mobile applications. The Reference Application comes with a number of apps out of the box. Currently we provide apps, which enable you to:

- Register patients
- Start and end visits
- List patients with active visits
- Admit/transfer/discharge patients
- Take clinical notes
- Capture patient vitals
- Display patient summary and visit history.
- Capture allergies
- Enter forms from the patient dashboard
- Patient request/scheduling appointment
- Patient's condition list
- Dispense medication
- Attach patient note

## Try It Out!

### Hosted Demo Server

You can explore the latest released version of the Reference Application by going to [demo.openmrs.org](http://demo.openmrs.org) and signing in with the following credentials:

username:	doctor	nurse	clerk	sysadmin
password:	Doctor123	Nurse123	Clerk123	Sysadmin123

Each user has access to different parts of the application and we encourage you to explore them all.

Note that this server is reset every 24 hours, so if it is unresponsive or the entire site seems down, please try again in 10-15 minutes.

### Standalone

You can download a standalone version of this release from <http://openmrs.org/download>. The first time you run this you have the option of setting up demo data or not.

### Enterprise

You can run the OpenMRS Platform with the Reference Application modules on top of it. These are two separate downloads at <http://openmrs.org/download> ("Platform", and "Modules & Data").

### Demo patients

If you want to see demo data on top of an Enterprise installation, go to Advanced Settings and set "referencedemodata.create Demo Patients On Next Startup" to the number of demo patients you want to create, then restart your servlet container. (Creating demo patients is a bit slow, so we recommend creating <50 the first time you try this.)

## Legacy OpenMRS vs. Reference Application

The Reference Application is built on top of the OpenMRS Platform 2.x, which still includes the Legacy User Interface (the original web application). You can still download and use the legacy application. See the [download page](#). (for legacy UI module)

The Reference Application is a set of modules that are installed in addition to the legacy OpenMRS web application. It means that when you install the Reference Application, you can still access all the features of the legacy application, however we keep them hidden from users by default.

## Required Initial Configuration

For all features of the reference application to work well, you will need to make the configurations below:

- To register a patient, the logged in user needs to have an associated provider account, meaning no patient registration will be possible if there is no user that has a provider account and yes this includes super user. Go to **System Administration - Manage Accounts - Add New Account** to add a new user and provider. Remember to create both a user account (with appropriate privileges) and a provider account.

## Advanced Configuration

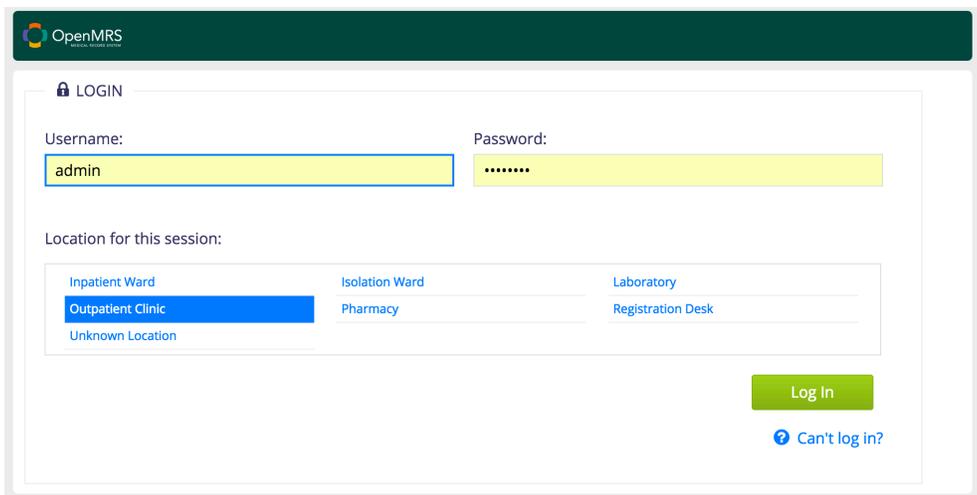
You can find more info about configuring the reference application [here](#).

## Features

As mentioned previously the Reference Application is built of small apps. There are a couple of apps provided out of the box and we expect to improve them and increase their number over time. The apps that come with the Reference Application focus on basic functionality. They are designed and developed in a way that satisfies as many use cases as possible and also can be adjusted to specific needs. In this paragraph we will describe features that come with the Reference Application and their configuration options.

## Location based login

When you first open up the Reference Application you will see a login screen.

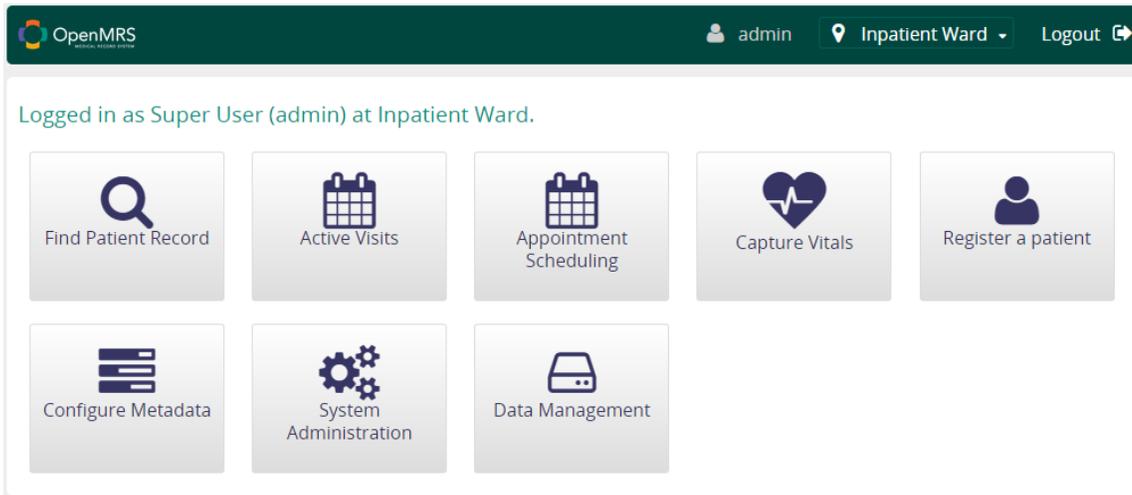


You can login as a system developer with full privileges by giving the default username **admin** and password **Admin123**. You also need to select Location for this session. (For more details [see here](#).) Locations are configurable from **Advanced Administration - Manage locations**. In order for a location to appear on a login screen you need to open it up and select a checkbox next to the **Login location** tag.

You should change the system developer password by going to **System Administration - Advanced Administration - Manage Users**. Search for admin, pick it in results, change the password and hit **Save**.

## Role based home page

You can see all apps that are available in your installation by logging in as a system developer and opening the home page.



Less privileged users do not see all apps, because they are hidden if they don't have privileges to use them. We have defined a set of application and organizational roles, which you can use, modify or create new as needed. Organizational roles inherit from application roles. Roles start from "Application:" or "Organizational:", e.g. "Application: Writes Clinical Notes" or "Organizational: Doctor". You can view all roles by signing in as an administrator and going to **System Administration - Advanced Administration and Manage roles**.

If you open a role you can see which privileges it has. In the Reference Application we assign API level privileges to all roles automatically and limit access by assigning UI level privileges. You can easily distinguish the two, because UI level privileges start from "Task:" or "App:". Task privileges relate to specific features available in apps, whereas App privileges limit access to whole apps.

If you have a starter implementation you must create users from **System Administration - Advanced Administration - Manage Users** and assign them organizational roles. In demo data we have created 3 users for you: doctor, nurse and clerk.

When you create users, you need to create providers as well, otherwise they will not be able to enter data. Go to **System Administration - Advanced Administration - Manage Providers** and bind a new provider with a previously created user.

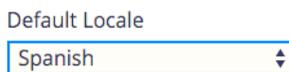
## Multilingual

The Reference Application is partially translated into several languages. (To see how to contribute translations, or just see the current status, see [Translating the Reference Application](#).)

Each user account has a "default locale" that is applied when they log in. The administrator can set this when creating a user account, or a user can change it on their own from My Account (under their username in the header):



...then by choosing **Default Settings** and setting the **Default Locale**:



The next time the user logs in, they will see the UI in the newly-selected language.

## Registration

The registration app is available under the **Register a patient** button from the home page. It is seen by users having the "Application: Registers patients" role.

The registration form supports keyboard navigation. You can go to a next field by hitting the TAB or ENTER key. Going backwards is possible with SHIFT + TAB.

All fields are being validated and you cannot advance if you do not provide a correct input. In order to move to next field, you must pass the validation. For example, you must enter Given and Last Name before moving to enter Gender, unless Unidentified Patient checkbox is ticked.

The registration app has an auto-complete feature for given and family names. It displays suggestions based on a selected algorithm. The default auto-suggestion works given an administrator entered a list of names under **Advanced Administration - Settings - Registrationcore - Given Name Auto Suggest List**. On the same page you can change the default auto-suggestion algorithm by replacing **Patient Name Search: registrationcore.BasicPatientNameSearch** with **registrationcore.NamePhoneticsPatientNameSearch** (uses the Name Phonetics module) or **registrationcore.ExistingPatientNameSearch** (returns suggestions based on patient names that already exist in the db). Developers can also provide a customized algorithm by implementing [this interface](#) and creating a named bean.

The system also searches for similar patients based on the information you entered so that you can review them and avoid creating duplicates. As soon as a duplicate is found you will see a bar at the top that there are similar patients found and you can click the **Review patient(s)** button to see them.

If you want to integrate the [Address Hierarchy Module](#) or add custom person attributes, you can find directions for [Registration App Configuration](#).

If you want to integrate Registration with a Master Patient Index (MPI) you can find directions for [MPI configuration](#).

If you want to add/remove address fields or change the address field labels that appear on the form, you can go to **System Administration - Advanced Administration - Manage Address Template**. For more information see [Administering Address Templates](#).

## Patient search

You can use the **Find Patient Record** app to display recently viewed patients or find any patient in a database by name or ID.

If the search field is empty, you see a listing of recently viewed patients. As soon as you start typing and enter at least the number of characters set as the value of the **Min Search Characters** global property on the settings page, you will see results changing live for what you entered. Note

that when searching by patient identifier you need to enter the full patient identifier because partial searches only work when searching by patient name.

Identifier	Name	Gender	Age	Birthdate
1001E1 <small>Recent</small>	cristian r	M	35	20-Oct-77
1000KN <small>Recent</small>	Herby_Check%Speccymbols George	F	22	13-Sep-91
10000X <small>Recent</small>	Darius Jazayeri	M	35	22-Aug-78
1001A7 <small>Recent</small>	Tuesday Standup	F	27	24-Sep-86
100199 <small>Recent</small>	Bob Smith	M	27	23-Sep-86
1000A8 <small>Recent</small>	Bob Builder	M	50	06-Sep-63
10008D <small>Recent</small>	Bob Marley	M	10	05-Sep-03

## Patient Summary

Once you open up a patient you see a clinical summary.

The header has basic demographic details, which you can edit by clicking the **Edit** button. There's also **Show Contact Info**, which expands a section with contact details when clicked. If a patient has an active visit you can see a green bar in the header saying when it started and also patient's current location.

Right below the header you can see boxes **DIAGNOSIS**, **VITALS** and **VISITS**. To the right you can find **General Actions** and **Current Visit Actions** if a patient has an active visit.

## Diagnosis

Currently you can see there a list of diagnoses entered as visit notes from 3 years back with the most recent at the top. You can configure the period by going to **System Administration - Advanced Administration - Settings - Coreapps** and enter **Recent Diagnosis Period in Days**.

A diagnosis that was entered as free-text is displayed in quotes. Each kind of diagnosis is displayed only once. See also [Visit Notes](#).

## Vitals

The box shows the last captured vitals. See also **Capture Vitals**.

## Visits

The box lists previous visits. It says if it was an outpatient or inpatient visit. You can click each visit to open up Visit details. Click the pencil next to visits to see them all, and edit them

## Allergies

This area lists known allergies, and the effect they have on the patient. Click the pencil next to allergies to add/edit allergies.

## Actions

On the right you can find a box with actions. General Actions are:

- Start Visit - start a visit if there is no active visit yet
- Add Past Visit - enter a retrospective visit
- Merge Visits - merge past visits
- Chart Search - search for patient chart
- *Any forms* which are marked as showing up under General Action section
- Schedule a New Appointment
- Request Appointment
- Mark patient deceased
- Delete patient

Current Visit Actions are displayed if there is an active visit and they include:

- End visit - end a visit
- Visit Note - enter a visit note
- Admit to Inpatient / Exit from Inpatient - change a type of visit
- Transfer to Ward/Service - transfer to a defined location (displayed only when in an inpatient visit)
- Capture vitals - enter patient's vitals

Note: Some actions may not be visible based on privileges of the currently logged in user.

Note: You can now add custom forms in the actions section. See [Manage Forms](#) to add your own action items.

## Custom widgets

In Reference Application we have customizable widgets. Please see [this page](#) for more information.

## Patient Visits

It is accessible from the **Visits** box on **Patient Summary**. You can either open up a specific visit or click **Show more info** to display the latest visit.

The screenshot shows the OpenMRS interface for a patient named Bob Smith. The patient's information includes: Smith, Bob, Male, 26 years (05.Sep.1987), Patient ID 10008D. The current status is 'Active Visit - 26 Sep 2013 04:52 AM' and 'Inpatient at Inpatient Ward'. The 'Visits' section lists several visits with dates and diagnoses, such as '26 Sep 2013 (active since 04:52 AM)' with 'No diagnosis yet.' and '26 Sep 2013 - 26 Sep 2013' with 'Fever, MALARIA'. The 'Active Visit' details show actions like 'End Visit', 'Visit Note', 'Exit from Inpatient', 'Transfer To Ward/Service', and 'Capture Vitals'. The 'Encounters' section lists three encounters: 'Transfer', 'Admission', and 'Vitals', all by Super User in Inpatient Ward, with options to 'show details', edit, or delete.

You can see it has the same patient header as **Patient Summary**. Right below on the left you can see a list of visits with date and diagnoses captured during a particular visit. The most recent visit is displayed at the top. You can click at any visit to see its details on the right. It has **Visit Actions** buttons if a visit is active and a list of encounters, which you can view by clicking **show details**. It is possible to edit them with the pencil icon or delete with the **x** icon.

Only encounters that are specifically configured as "editable" can be edited. This is [how it's done](#) for the built-in reference application forms. There is currently not a way to edit your own forms. In order to edit an encounter, you either need to have the privilege "*Task: emr.patient.encounter.edit*", or else have *participated* in the encounter.

All forms can be deleted. To delete, you need the privilege "*Task: emr.patient.encounter.delete*", or else to have *participated*.

"Participated" means that either you created the encounter, or else you are one of the providers of the encounter.

There's also **Actions** on the right where you can find general actions, which are the same as in **Patient Summary**.

## Active Visits

You can see patients with active visits through the **Active Visits** app available from the home page.

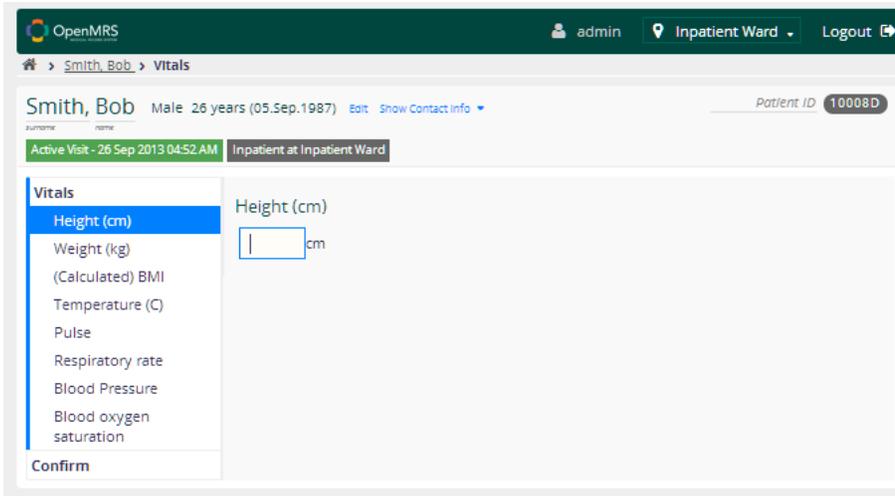
The screenshot shows the 'Active Visits' app in OpenMRS. It displays a table with the following data:

Patient ID	Name	Check-In	Last Seen
OpenMRS ID: 10008D	Bob Smith		Visit Note Outpatient Clinic @ 26.Sep.2013, 05:25:11
OpenMRS ID: 10000X	Darius Jazayeri		Visit Note Pharmacy @ 23.Sep.2013, 16:24:41

When you click on a name you will see that patient's summary.

## Capture Vitals

It is accessible from both the home page via the **Capture Vitals** app or directly from **Current Visit Actions** on both **Patient Summary** and **Patient Visits**. The app is designated for a standalone capture vitals station. It allows you to quickly find a patient, enter vitals and continue repeating this process. The action available from Current Visits Actions allows you to capture vitals for the currently displayed patient and return to the summary.

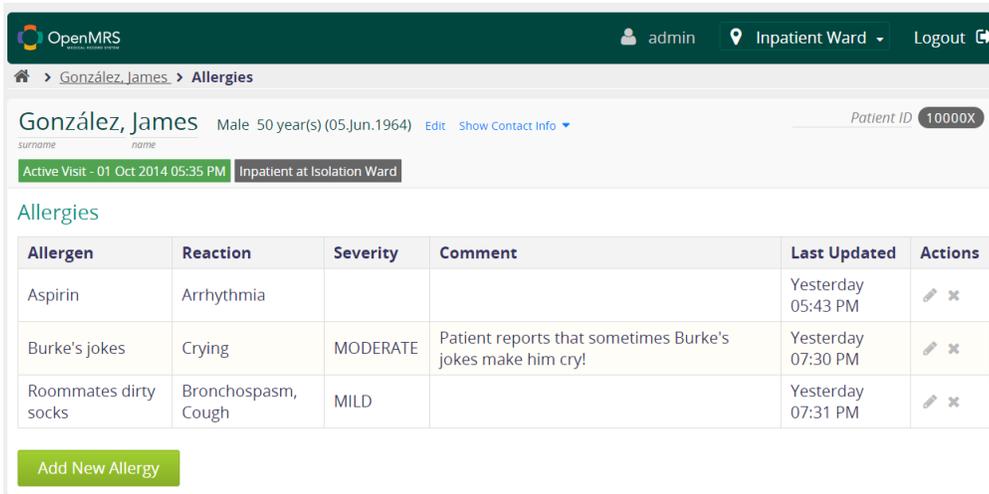


The screenshot shows the OpenMRS interface for capturing vitals for patient Bob Smith. The patient's details include name, gender, age, and date of birth. The active visit is from 26 Sep 2013 04:52 AM, and the patient is currently inpatient at the Inpatient Ward. The vitals form includes a dropdown menu for selecting the vital sign to capture: Height (cm), Weight (kg), (Calculated) BMI, Temperature (C), Pulse, Respiratory rate, Blood Pressure, Blood oxygen saturation, and a Confirm button. The Height (cm) field is currently empty.

The form for capturing vitals has basic validation. It calculates BMI from Height and Weight. It supports keyboard navigation in the same way as the registration form.

## Capture Allergies

It is accessible from the **Patient Dashboard**, by clicking the pencil beside allergies. If there are any existing allergies, it shows them in the list. If the patient has no known allergies, this can be specified by clicking the green "No Known Allergies" button.



The screenshot shows the OpenMRS interface for capturing allergies for patient James González. The patient's details include name, gender, age, and date of birth. The active visit is from 01 Oct 2014 05:35 PM, and the patient is currently inpatient at the Isolation Ward. The allergies table lists three allergies: Aspirin (Arrhythmia), Burke's jokes (Crying, MODERATE), and Roommates dirty socks (Bronchospasm, Cough, MILD). Each entry includes the last updated time and edit/delete actions. A green "Add New Allergy" button is visible at the bottom.

Allergen	Reaction	Severity	Comment	Last Updated	Actions
Aspirin	Arrhythmia			Yesterday 05:43 PM	
Burke's jokes	Crying	MODERATE	Patient reports that sometimes Burke's jokes make him cry!	Yesterday 07:30 PM	
Roommates dirty socks	Bronchospasm, Cough	MILD		Yesterday 07:31 PM	

When you click to "Add New Allergy", it allows you to select the allergy type; drug, food or environmental. You can click the allergen, and then specify the reaction it causes and the severity. You can also add a comment if you like. After you click save,

OpenMRS admin Inpatient Ward Logout

Smith, Bob > Allergies > Add New Allergy

Smith, Bob Male 30 year(s) (~29.Sep.1984) Edit Show Contact Info Patient ID 10000X

Active Visit - 30 Sep 2014 09:27 AM Outpatient

### Add New Allergy

DRUG
  FOOD
  ENVIRONMENTAL

ACE inhibitors  
 ARBs (Angiotensin Receptor Blockers)  
 Aspirin  
 Cephalosporins  
 Codeine  
 Erythromycins  
 Heparins  
 Morphine  
 NSAIDs  
 Penicillins  
 Statins  
 Sulfonamides  
 Other

Anaemia  
 Anaphylaxis  
 Angioedema  
 Arrhythmia  
 Bronchospasm  
 Cough  
 Diarrhea  
 Dystonia  
 Fever  
 Flushing  
 GI upset

Headache  
 Hepatotoxicity  
 Hives  
 Hypertension  
 Itching  
 Mental status change  
 Musculoskeletal pain  
 Myalgia  
 Unknown  
 Other

Reactions: (check all that apply):

Severity:  MILD  MODERATE  SEVERE

Comment:

Cancel Save

## Visit Notes

The form for entering visit notes is accessible from **Patient Summary** and **Patient Visits**. It is listed under **Current Visits Actions**.

OpenMRS admin Inpatient Ward Logout

Smith, Bob > Visit Note

Smith, Bob Male 26 years (05.Sep.1987) Edit Show Contact Info Patient ID 10008D

Active Visit - 26 Sep 2013 04:52 AM Inpatient at Inpatient Ward

### Visit Note

Provider: Super User  
 Location: Inpatient Ward  
 Date: 26/09/2013 (dd/mm/yyyy)

Add presumed or confirmed diagnosis (required):

Clinical Note:

Primary Diagnosis: \_\_\_\_\_  
 Not chosen

Secondary Diagnoses: \_\_\_\_\_  
 None

Cancel Save

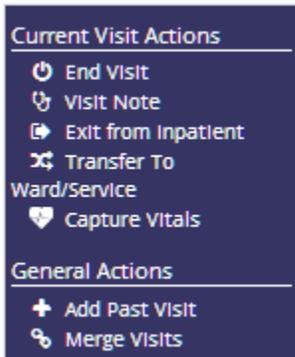
First you enter a primary diagnosis by starting to type in the **Add presumed or confirmed diagnosis** field. It has an auto-suggest feature which finds diagnosis concepts, but also has the **Non-coded** selection with the value you entered. You need to pick from the auto-suggest list to add the diagnosis, which then appears on the right under **Primary Diagnosis**. If you repeat these steps, your selections will appear under **Secondary Diagnoses**.

Diagnoses are either primary or secondary. First diagnosis added will set as primary by default. By unchecking primary, it will move the diagnosis under Secondary Diagnosis. For each of the diagnosis (doesn't matter it's primary or secondary), it can be confirmed or presumed. The default setting is presumed when the "Confirmed" checkbox is not checked. **Please don't get confused with the checkboxes of "Primary" and "Confirmed" as they are for two different questions.** Primary checkbox is for whether the diagnosis is primary or secondary diagnosis (when Primary is unchecked, it means it's secondary diagnosis). Confirmed checkbox is for whether the diagnosis is confirmed or presumed (when Confirmed is unchecked, it means the diagnosis is presumed).

It is also possible to enter a free-text clinical note. When you are done you just need to click **Save**.

## Admissions, Discharges and Transfers

A patient can be admitted, discharged or transferred from **Patient Summary** or **Patient Visits** under **Current Visit Actions**.



Locations can be configured from **System Administration - Advanced Administration - Manage Locations**. You need to have a location marked with the **Visit location** tag, which has children marked with the **Admission location** or **Transfer location** tags.

For an example look at the setup in the demo data. See [Demo](#).

## Configure Metadata

Click on the Configure Metadata app on the main apps screen. If you want to add, edit, retire/restore or delete metadata in the new UI, this is where you go.

OpenMRS MEDICAL RECORD SYSTEM admin Inpatient Ward Logout

Configure Metadata

- Encounters
  - Manage Encounter Roles
  - Manage Encounter Types
- Forms
  - Manage Forms
- Locations
  - Manage Location Attribute Types
  - Manage Location Tags
  - Manage Locations
- Patients
  - Manage Patient Identifier Types
- Providers
  - Manage Provider Attribute Types
- Roles And Privileges
  - Manage Privileges
  - Manage Roles
- Visits
  - Manage Visit Attribute Types

When you click on any of the links in blue above, you should be able to view page that lists the respective metadata, the action column on the right has these icons    , click the pencil icon to edit, the 'x' icon to retire and the trash icon to delete items forever. When you retire an item, the 'x' icon gets replaced with 'restore' icon which when clicked should un retire the item. To add a new piece of metadata, click on the add button at the top of the listing page, e.g 'Add New Encounter Type' in case of encounter types.

### Manage Forms

Under the Configure Metadata screen, there is now a new app to "Manage Forms". It is possible to add custom forms to the new user interface without any custom programming! When you initially enter Manage Forms, it shows you a list of forms that exist in the system. Obviously, before you can configure where a custom form will appear in the system, you must create the form. Both HTML and XForms are supported, but they must be created through the legacy user interface, under **System Administration - Advanced Administration**.

OpenMRS MEDICAL RECORD SYSTEM admin Inpatient Ward Logout

Configure Metadata > Manage Forms

Manage Forms

Name	Description	Version	Published	UI
Admission (Simple)	-	1.0	false	Built-in form cannot be modified 
Discharge (Simple)	-	1.0	false	Built-in form cannot be modified 
Transfer Within Hospital (Simple)	-	1.0	false	Built-in form cannot be modified 
Vaccination	Vaccination	0.1	false	<a href="#">Add</a>
Visit Note	-	1.0	false	Built-in form cannot be modified 
Vitals	-	1.0	false	Built-in form cannot be modified 

After you've created your custom form that you want to add to the new user interface / patient dashboard, you can click "Add" in the UI column next to the form name, as seen in the screenshot above. Clicking "Add" opens up the configuration screen for that form.

OpenMRS

admin Inpatient Ward Logout

Configure Metadata > Manage Forms > Add Form to UI

### Vaccination - Add Form to UI

Form Technology: htmlformentry

UI Location:  
Patient Dashboard - General Actions

Display Style  
Standard

Label Text or Message Code  
Vaccination

Icon  
icon-file

Privilege Required

Order  
15

Show If

Cancel Save

There is a rich user interface for configuring metadata i.e add, create, retire/void, restore and delete metadata, as seen above you can also configure where and how your form will appear. Let's discuss these settings individually.

**UI Location** - This is where you want the form to appear. Is this a top level action (General Action), or a form that gets filled out as part of the current visit (Current Visit Actions)?

**Display Style** - Do you want the form to be rendered like a standard HTML form, or do you want the form to be rendered in simple view (like the OpenMRS 2.0 vitals form)?

**Label Text or Message Code** - What do you want this form to be called? It defaults to the form name, which is probably acceptable under most circumstances.

**Icon** - Do you want to use a custom icon? You can see possible icons and their names at <http://demo.openmrs.org:8080/openmrs/uicommons/icons.page>.

**Privilege Required** - Do you want to limit who can fill out the form? You can specify a privilege the user's role must have to be able to see the form. Note: the privilege name must start with "App:" or "Task:"

**Order** - Do you want this form to appear in a specific position in the list of forms? This is a way to sort your forms manually. If you want this form to be first, you must use a negative number.

**Show If** - Do you want to display the form only if the patient has certain characteristics? Perhaps you would only want a maternal health form to be visible on the patient dashboard of a female patient. You would use something like "patient.person.gender=='F' && patient.person.birthdate < '2001-01-01T00:00:00.000+0000' && patient.person.dead==false". Or show if males with an active visit "visit.active && patient.person.gender=='M' ". Or show if the patient has a current visit and they are currently admitted, "visit.active && visit.admitted". For more information on what properties are available, see the [Conditionally displaying Apps and Extensions](#) page.

If you are replacing a built-in form, with a new custom form, you can view the configuration of the integrated forms in the [source code](#).

## Data Management (Merge Patient Electronic Records)

Under the **Data Management** App, you will find the ability to **Merge Patient Electronic Records**.

OpenMRS admin | Registration Desk | Logout

Data Management > Merge Patient Electronic Records

Select two patients to merge...

Please enter the Patient IDs of the two electronic records to merge.

Patient ID

Patient ID

Cancel Continue

You can also dynamically search for patients to merge, by name or id

If you know both patient IDs, you can enter them in the Patient ID box. Alternatively, you can search in the lower box. Once you search, click each patient once and the Patient ID boxes will automatically be filled.

Please enter the Patient IDs of the two electronic records to merge.

Patient ID

Patient ID

Cancel Continue

You can also dynamically search for patients to merge, by name or id

Identifier	Name	Gender	Age	Birthdate
100KK3	archive patient	F	18	21 Feb 1999
100KJ5	keep patient	F	18	21 Feb 1999

Showing 1 to 2 of 2 entries [First](#) [Previous](#) [1](#) [Next](#) [Last](#)

Click Continue and you will be redirected to the display page where you choose which patient to keep and which to archive. All information will be transferred to the patient you choose to keep and this action can not be undone.

OpenMRS admin | Registration Desk | Logout

Data Management > Merge Patient Electronic Records > Select the preferred record.

Select the preferred record.

*All data (Patient IDs, Paper Record IDs, visits, encounters, orders) will be merged into the preferred record.*

**Surname, First Name**  
patient, keep

**Demographics**  
Female, 18 year(s)  
Birthdate:22.Feb.1999

**Identifier(s)**  
100KJ5

**Additional Identifier(s)**  
None

**Surname, First Name**  
patient, archive

**Demographics**  
Female, 18 year(s)  
Birthdate:22.Feb.1999

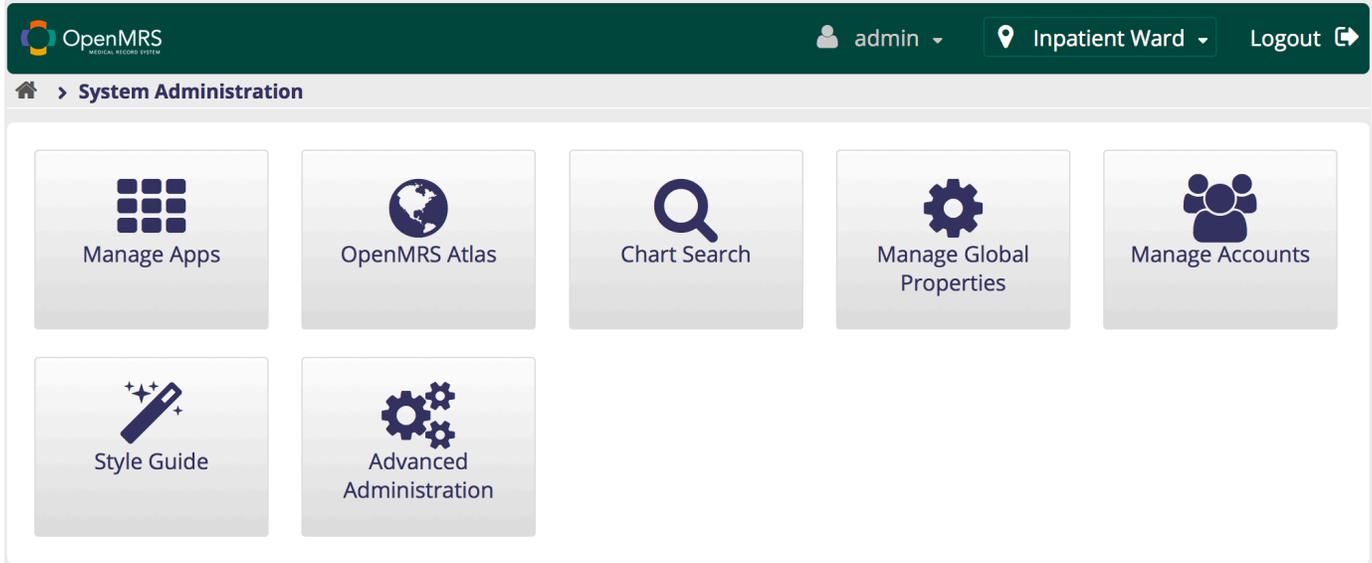
**Identifier(s)**  
100KK3

**Additional Identifier(s)**  
None

Click the green button labeled Yes, Continue, the records will be merged, the other patient will be archived and you will be redirected to the patient screen.

## System Administration

Under the **System Administration** App, you will find system administration tools. This currently includes the Style Guide, especially useful to programmers. It also includes **Advanced Administration** which returns you from the new user interface to the legacy user interface. This is useful for configuring legacy settings and modules that don't yet have a user interface in the new UI; like Reporting and Facility Data Module for example. You can also manage global properties and user accounts by selecting the appropriate app from the page shown in the screenshot below, you can navigate to this page by selecting **Home -> System Administration**.



### Manage Apps

This allows implementers to add or remove applications to/from the system without having to build a module. This is done by configuring a JSON definition. For more information see [System Administration: Manage Apps](#).

### Viewing And Managing Accounts

In the reference applications, user and provider accounts are linked to a person record and are managed from the same page. From the home page navigate to the account listing page by clicking **System Administration -> Manage Accounts** as seen in the screenshot above to view all the accounts.

Add New Account

Search

Name	Gender	User Accounts	Provider Accounts	Action
Super User	M	3	1	
John Smith	M	1	1	
Jane Smith	F	1	1	
Jake Smith	M	1	1	
Julie Smith	F	1	0	
Paul Biondich	M	1	0	
Rafael Madrid Varane	M	1	0	
James Arbaugh	M	1	1	

Showing 1 to 8 of 8 entries

[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

*\* Indicates a provider account that isn't linked to a person record*

- To add a new account, from the account listing page, click on the 'Add New Account' button, fill the form and save.

- To Edit an existing account, from the account listing page click the pencil icon beside the account you wish to edit.

**OpenMRS** admin Inpatient Ward Logout

System Administration > Manage Accounts > Edit Account

### Edit Account

**PERSON DETAILS**

Family Name Arbaugh

Given Name James

Gender Male

**Audit Info**

UUID: 23db91ee-5f96-44cb-a03f-d1836affbdb1  
 Created By Super User (admin) On 12.Oct.2015, 18:03:26  
 Changed By Super User (admin) On 12.Oct.2015, 18:03:27

**USER ACCOUNT DETAILS**

james +

Username james

Privilege Level Full

Is Supposed To Change Password? No

Capabilities

Retire

**PROVIDER DETAILS**

Clinical Doctor +

Identifier JDA

Provider Role Clinical Doctor

Retire

- To edit the person details, under person details section click on the pencil icon on the right, make changes and save or press cancel if you don't wish to save the changes.

- To add a new user account, under user details section click on the last tab with the '+' sign, make changes and save or press cancel if you don't wish to save the changes. It now includes support for user capabilities.

USER ACCOUNT DETAILS

**james**

Username\*  Privilege Level\*  Cancel Save

Force Password Change

Capabilities

- Administrates System
- Configures Forms
- Enters ADT Events
- Has Super User Privileges
- Manages Provider Schedules
- Registers Patients
- Schedules And Overbooks Appointments
- Sees Appointment Schedule
- Configures Appointment Scheduling
- Configures Metadata
- Enters Vitals
- Manages Atlas
- Records Allergies
- Requests Appointments
- Schedules Appointments
- Uses Capture Vitals App

- To edit an existing user account, under user details section click on the associated pencil icon on the right hand side of the tab content pane for that user account, make changes and save or press cancel if you don't wish to save the changes.
- To add a new provider account, under provider details section click on the last tab with the '+' sign, make changes and save or press cancel if you don't wish to save the changes.
- To edit an existing provider account, under provider details section click on the associated pencil icon on the right hand side of the tab content pane for that provider account, make changes and save or press cancel if you don't wish to save the changes.

Note: Retiring and deleting user and provider accounts is not supported as of 2.3 but should be in future releases.

## Viewing And Managing Settings (formerly Global Properties from 1.8 downwards)

From the home page navigate to the account listing page by clicking **System Administration -> Manage Settings (formerly Global Properties from 1.8 downwards)** as seen in the screenshot above to view all the Settings (formerly Global Properties from 1.8 downwards).

OpenMRS admin Inpatient Ward Logout

System Administration > Manage Global Properties

Add New Global Property

Name	Value	Action
allergy.allergen.ConceptClasses	Drug,MedSet	
allergy.concept.allergen.drug	162552AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.allergen.environment	162554AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.allergen.food	162553AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.otherNonCoded	5622AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.reactions	162555AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.severity.mild	1498AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.severity.moderate	1499AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.severity.severe	1500AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.concept.unknown	1067AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
allergy.reaction.ConceptClasses	Symptom	
application.name	OpenMRS	

- Click on the 'Add New Setting (formerly Global Property from 1.8 downwards)' button to add a new Setting (formerly Global Property from 1.8 downwards).
- The action column on the right has these icons , click the pencil icon to edit and the trash icon to delete a setting (formerly global property from platform 1.8 downwards).

Note: Some Setting (formerly Global Property from 1.8 downwards) values are truncated to fit in the allocated space, clicking the pencil icon should take you to the edit screen from where you can see the entire value. On the listing page, hovering over the name cell should display the description also.

## • Built-In Reports

### What this module does

Built-in reports OWA provides basic reporting and give some insight into your data in Reference Application distribution. Data can be seen visually how they have spread and it gives an overview about the present data.

Currently there are some basic reports available. If anyone wants to add more sophisticated reports, it's really easy and there are some common components that can be reused from the OWA when it comes to displaying the data.

### Documentation / How-To

You need to have the Reference Metadata module 2.7.0 or higher installed in your OpenMRS server. This module includes the report definitions which the built-in reports OWA is being displaying.

Currently there are 10 basic reports have configured.

- Number of Visits
- Number of Patient Registrations
- Number of Admissions per service area
- Number of Transfers per service area
- Number of Discharges per service area
- Number of Visit Notes
- List of Diagnosis's made and quantity
- List of Providers (grouped by active/retired)
- List of Users (grouped by active/retired)
- List of new Patient Registrations

You can see those reports under **Administration -> Manage Report Definitions -> Report Administration** once you install the Reference Metadata module 2.7.0 or higher.

After ensuring that the reports are properly configured with the Reference Metadata module installation, you can upload the **openmrs-owa-built-in-reports** to your OpenMRS server.

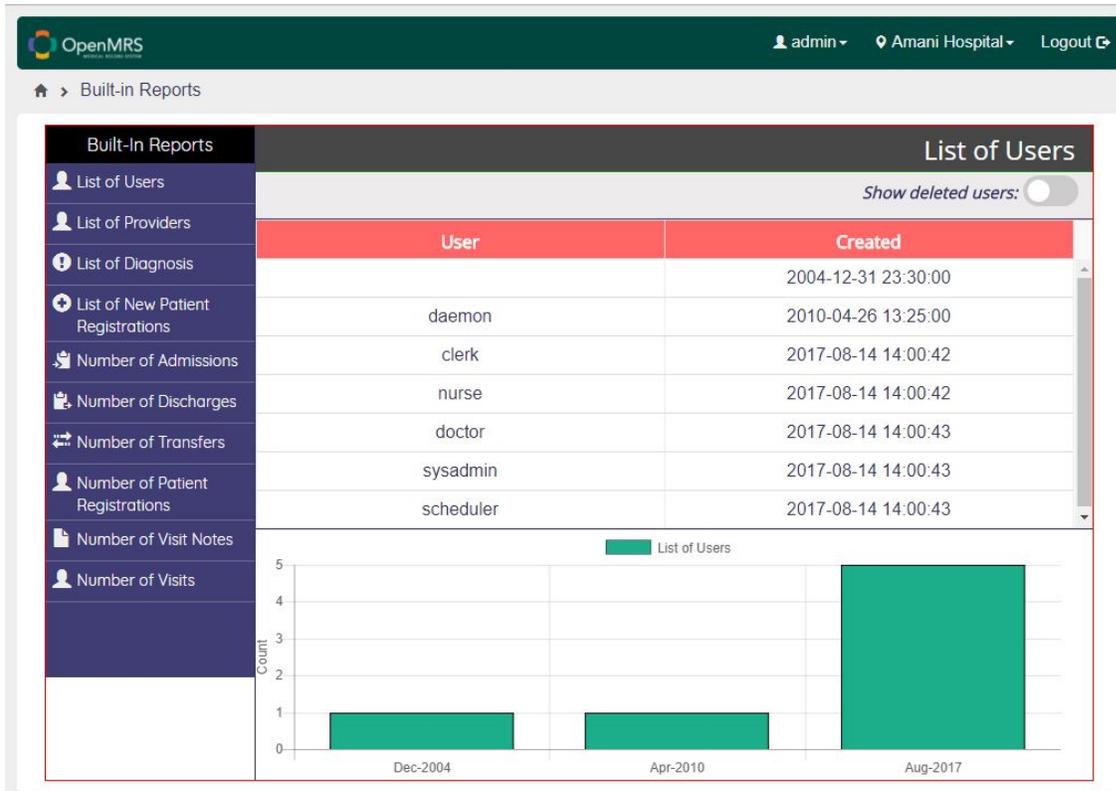
Then you can open up the owa from **Administration -> Open Web Apps Module -> Manage Apps -> Built In Reports**.

### Downloads

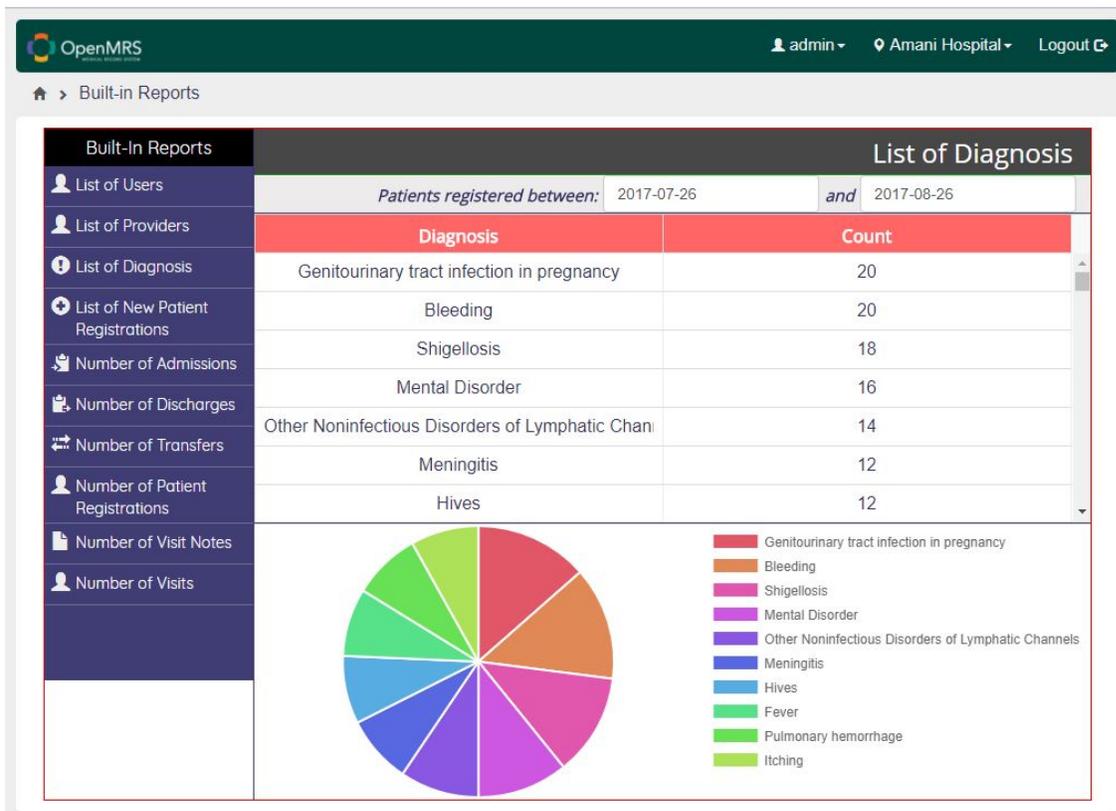
<https://github.com/JudeNiroshan/openmrs-owa-built-in-reports>

### Screenshots

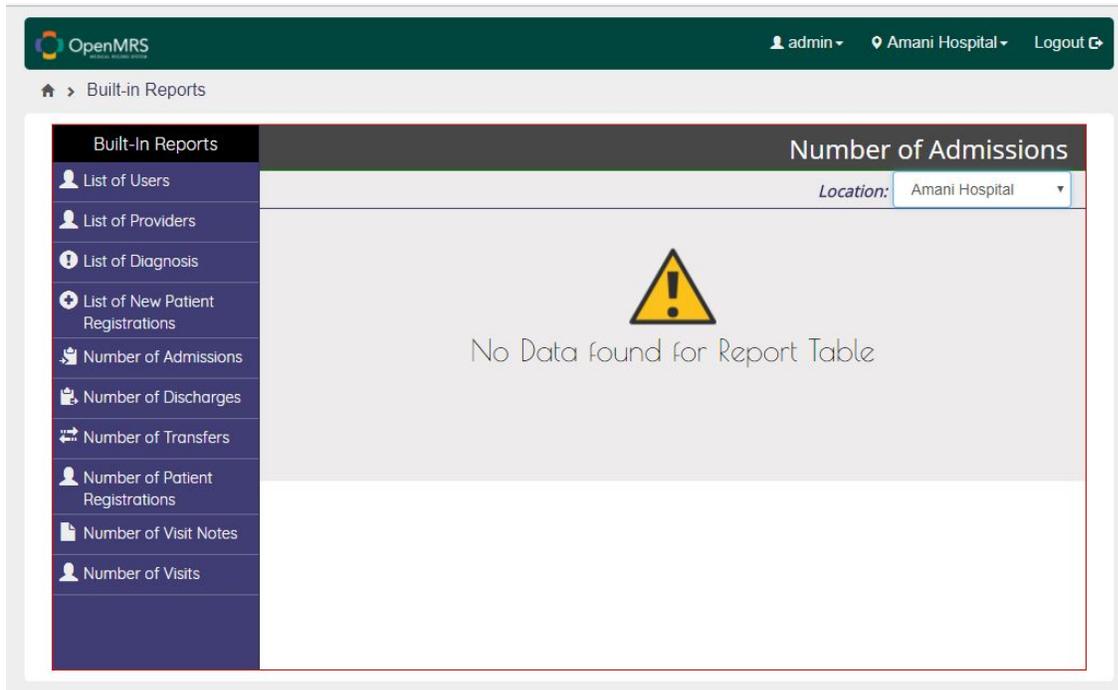
List of Users in the OpenMRS system has visualized as follows:



List of Diagnosis in the entire system is available as below:



When there is no data in OpenMRS for any of the reports, it will be indicated to the user like below:



## More MetaData Management in Admin UI

OpenMRS Legacy Module contains a lot of administrative functionalities which are needed to manage the reference application. Most of this administrative functionalities contain a legacy model and less experience to the users. So OpenMRS Community wanted to migrate those administrative features to the Modern Open web app view.

More Metadata Management in AdminUI project is one of those projects which are designed to migrate some of these administrative functionalities to the modern open web app view. In the More Meta data Management in AdminUI project, We focused on this following functionalities,

- 1. Manage Modules** - This feature will be used to manage the modules in the OpenMRS reference application.
- 2. System Information** - This feature will be used to display the System information about the OpenMRS server and the system.
- 3. Manage Scheduler** - This feature will be used to manage the tasks in the OpenMRS reference application.

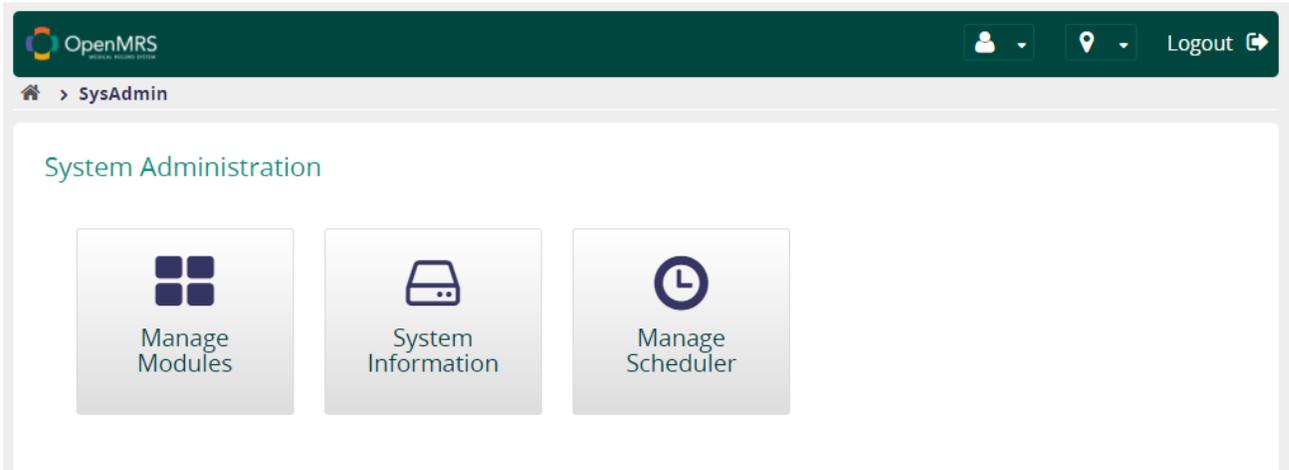
These features are implemented as Open Web Apps with the modern view to the users.

## Implementation

Those features are implemented as an Open Web App and included into the SysAdmin Open Wep App.

Used technologies for the developments,

- Front End Development : HTML, CSS, Angular JS, jQuery
- Back End Development: Java, REST API



## Manage Modules

This feature will be used to manage the modules in the OpenMRS reference application. Users can use this implementation for the following functionalities,

### Features of the Manage Modules

Functionalities	Modification	New/ Existing/ Modified Feature
1. List all the installed Module	New Icons used to indicate the module status	<i>Modified Feature</i>
2. Start the module	<i>No Modifications</i>	Existing Feature
3. Stop the module	Confirmation Pop up will be shown with the dependent modules details to alert the user	<i>Modified Feature</i>
4. Delete/Unload the module	Confirmation Pop up will be shown with the dependent modules details to alert the user	<i>Modified Feature</i>
5. Check updates	Module updates will be checked with OpenMRS AddOns and listed in the new page for the user selection.	<i>Modified Feature</i>
6. Check one module update	Check the update with OpenMRS AddOns and indicate the update status	<b>New Feature</b>
7. Start All Modules	<i>No Modifications</i>	Existing Feature
8. Add/Upgrade Modules	Implemented Drag and Drop feature	<i>Modified Feature</i>
9. Search Modules	Connected with OpenMRS Addons and user can search the module independently	<i>Modified Feature</i>
10. Search Module Information	User can view the detailed information about the searched module	<b>New Feature</b>
11. Module Information View	Used to display the module information with required modules, aware of modules, and depend on module details	<b>New Feature</b>
12. View not installed module information	Connected with OpenMRS add-ons and indicate the user about the installation features.	<b>New Feature</b>

## System Information

This feature will be used to display the System information about the OpenMRS server and the system. Users can use this feature to get this following information,

1. OpenMRS Information
2. Operating System Information
3. Java Runtime Information
4. User Information
5. Memory Information
6. Database Information
7. Module Information

## New Features

1. Divided the existing System Information under different set of categories to increase the usability
2. Used some new kind of Icons to illustrate the Information Category properly
3. Modified Module Information Section with some new ideas.

## Manage Scheduler

This feature will be used to manage the tasks in the OpenMRS reference application. Users can use this implementation for this following functionalities,

### Features of the Manage Modules

Functionalities	Modification	New/Existing/Modified Feature
1. List all the installed Module	New Icons and UI used to indicate the module status	<i>Modified Feature</i>
2. Schedule Task	<i>No Modifications</i>	Existing Feature
3. Shutdown Task	Confirmation Pop up will be shown to alert the user	<i>Modified Feature</i>
4. Reschedule Task	It will reschedule the existing task in the system	<b>New Feature</b>
5. Delete Task	Confirmation Pop up will be shown to alert the user	<i>Modified Feature</i>
6. Reschedule All Tasks	It will reschedule all the tasks in the system	<b>New Feature</b>
7. Shutdown All Tasks	It will shut down all the tasks in the system	<b>New Feature</b>
8. Startup Tasks	It will reschedule all the tasks in the system	<b>New Feature</b>
9. Refresh Tasks	It will refresh the list of registered tasks	Existing Feature
10. Add New Task Definition	Used to create new Task Definition Implemented new UI for this functionality	<i>Modified Feature</i>
11. Edit Task Definition	Used to edit existing Task Definition Implemented new UI for this functionality	<i>Modified Feature</i>

More Info here [wiki](#) and this [blog](#)

- **OWA included in RA - System Administration, Add-on Manager and Cohort Builder**

See this [RA-1427](#)

- **Biometrics Support in Registration App**

See These Tickets ( [RA-1406](#) ,[RA-1407](#) ,[RA-1391](#) ,[RA-1395](#) ,[RA-1397](#) )

- **Sticky Note on the Patient Dashboard**

See [RA-1287](#)

- **Ability to edit implementation forms**

See [Ticket](#) and try it out at [qa-refapp](#)

- **Pre-built Reporting Tools**

See RA-1257 and RA-1258

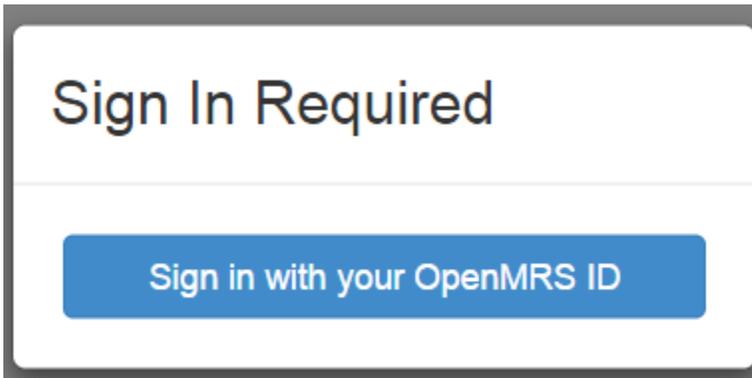
### New Features

### Condition list

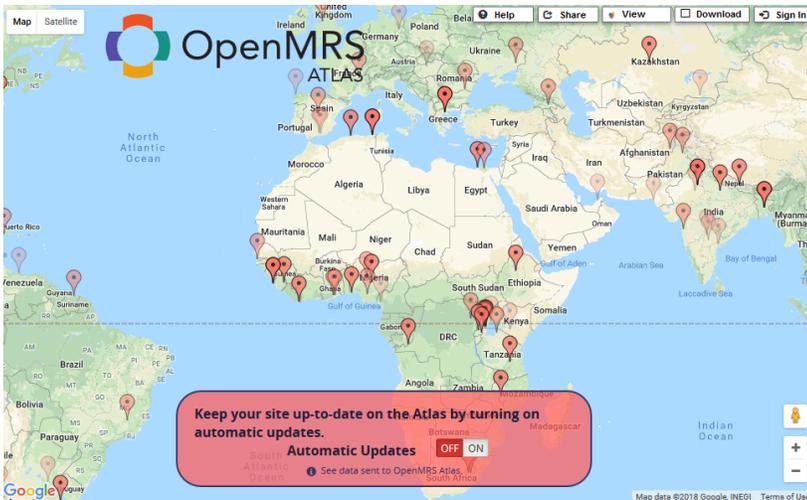
This area manages the conditions of the patient and its history . Click the pencil next to conditions to add a condition.

## OpenMRS Atlas

New to the OpenMRS 2.1 user interface is the [OpenMRS Atlas](#) configuration. When the implementation is first established, you must link ownership with an OpenMRS ID. Click "Sign in with your OpenMRS ID" and provide your [OpenMRS ID](#) and password. If your browser is already logged in to OpenMRS ID, it will use that account automatically when you click "Sign in".



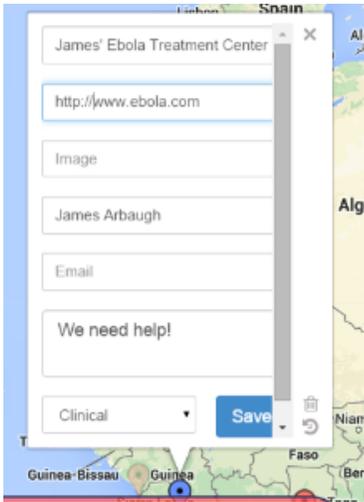
The main map view is then displayed.



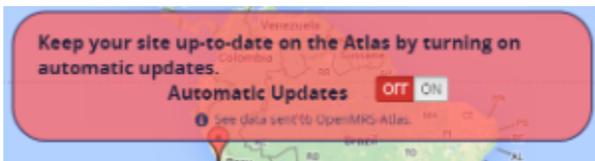
Select your existing site, or click the user menu with your name that appears. Choose "Add New Site".



You can then drag your marker to the physical location of your site. Double-clicking on the site will allow you to view the details. Clicking the pencil icon will allow you to edit the details.



You can then choose to turn on Automatic Updates. This will allow the world to see the progress your uses are making with data entry; specifically the number of patients, encounters and observations you have entered into your system. Rest assured, no patient identifiable information is shared.



Invite your friends to visit <https://atlas.openmrs.org> to see everywhere that OpenMRS is in use around the world!

You can manage the Atlas after initial configuration under **System Administration - OpenMRS Atlas**.