

SOP: Setting Up System Schedulers for Various Tasks

(Last update: April 2024)

TASK:	Setting Schedulers for Various tasks in KenyaEMR
OBJECTIVE:	Optimize system performance by effectively setting up time-based events in EMR
WHO:	Facility System Admin, Partner supporting site HIS staff
REQUIREMENTS:	Functional KenyaEMR, Knowledge on Scheduler functions

SECTION 1: Navigating to the Schedulers in KenyaEMR

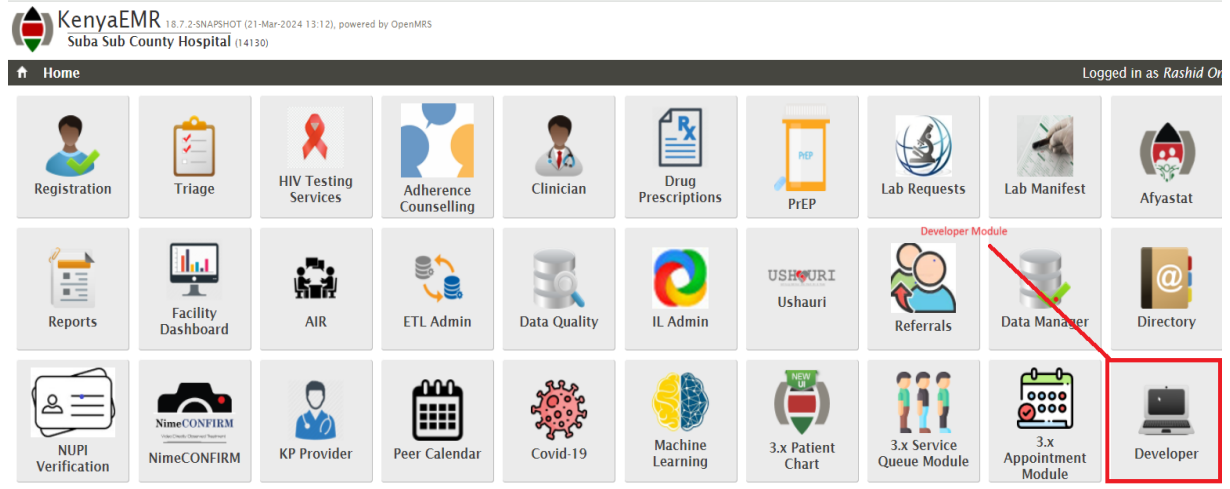
Scheduler Management: Schedulers are important in KenyaEMR to execute routine and repetitive tasks i.e routine data extraction at regular intervals, ETL refresh etc. It is imperative to set up and configure these tasks to achieve full potential of this utility. This document outlines simplified steps on Scheduler configurations in both KenyaEMR 2.x and 3.x

NB: This applies to KenyaEMR 2.x

Navigate to KenyaEMR Maintenance Page:

Steps:

- Logi into KenyaEMR,
- Click Home
- Locate Developer Icon as shown and click

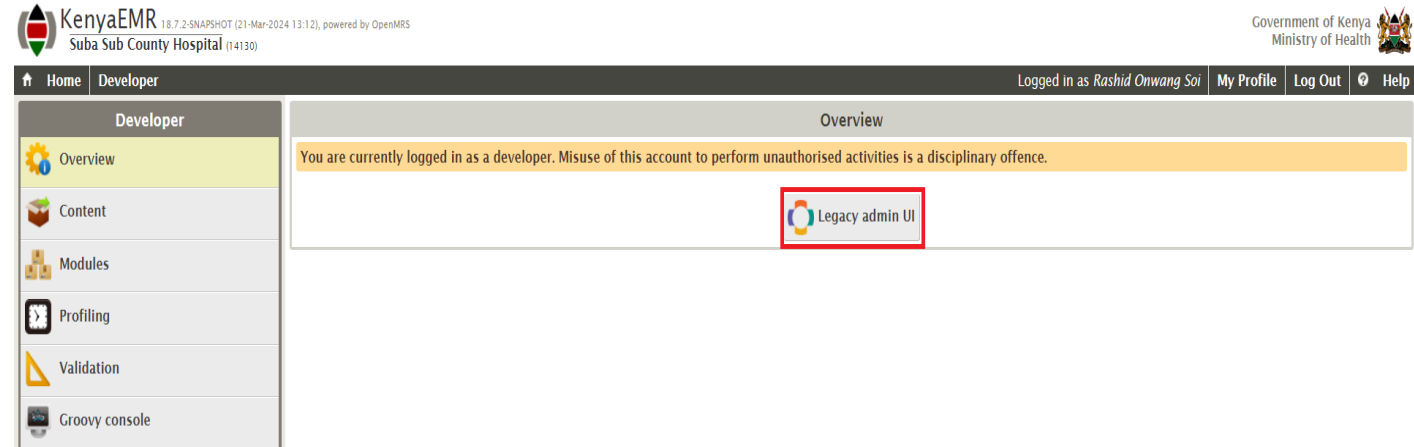


The screenshot shows the KenyaEMR Home page for Suba Sub County Hospital. The page is titled 'Home' and shows the user is logged in as 'Rashid Or'. The main content area contains a grid of 30 icons representing different modules. The 'Developer' icon, located in the bottom right corner of the grid, is highlighted with a red box. A red arrow points from the text 'Developer Module' above it to the 'Developer' icon.

1. Open the Legacy Admin UI

Steps:

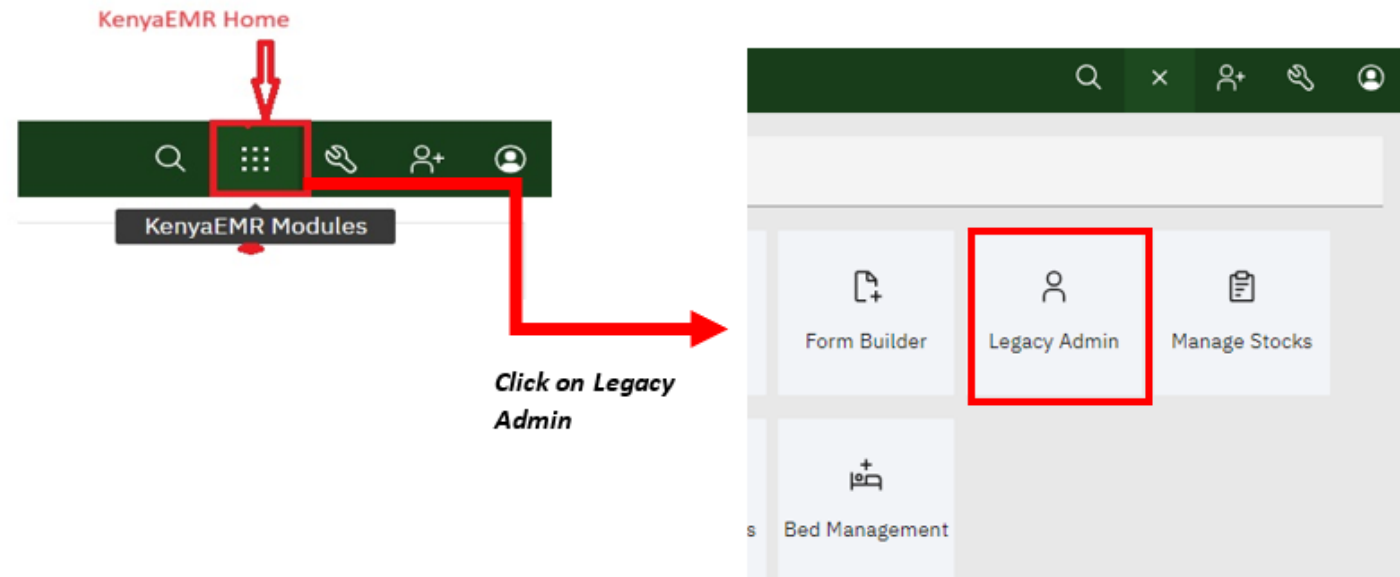
- Click on the Legacy Admin UI button as shown. This will open the legacy OpenMRS maintenance page.




The screenshot shows the KenyaEMR Developer interface. At the top, it says 'KenyaEMR 1.8.7.2:SNAPSHOT (21-Mar-2024 13:12), powered by OpenMRS' and 'Suba Sub County Hospital (14130)'. The user is logged in as 'Rashid Onwang Sor'. A navigation menu on the left includes Overview, Content, Modules, Profiling, Validation, and Groovy console. A central message states: 'You are currently logged in as a developer. Misuse of this account to perform unauthorised activities is a disciplinary offence.' A button labeled 'Legacy admin UI' is highlighted with a red box.

NB: This applies to KenyaEMR 3.x

- Click on the KenyaEMR Home (shown)
- Locate Legacy admin on the available tiles and click. This will open the OpenMRS administration page.



The diagram illustrates the navigation process. It starts with 'KenyaEMR Home' pointing to a search bar and a menu icon (three dots) in a dark green header. A red box highlights the menu icon, and a red arrow points to a 'KenyaEMR Modules' dropdown menu. Another red arrow points from the dropdown to a 'Legacy Admin' tile in a grid of application tiles. The 'Legacy Admin' tile is highlighted with a red box. Below the diagram, the text 'Click on Legacy Admin' is written.

<p>2. Open the Task Scheduler Panel On the OpenMRS Admin panel, locate the Schedule as shown and click Manage Scheduler. This will open the Scheduler Management panel.</p>	<p>Manage Visit Attribute Types Configure Visits</p> <p>Encounters Manage Encounters Manage Encounter Types Manage Encounter Roles</p> <p>Providers Manage Providers Manage Provider Attribute Types</p> <p>Locations Manage Locations Manage Location Tags View Location Hierarchy Manage Location Attribute Types Manage Address Template</p> <p>Observations Manage Observations</p> <p>Scheduler Manage Scheduler</p> <p style="text-align: right; color: red;">Click on manage scheduler</p> 
<p>3. Manage Schedulers On the Scheduler Management panel (Shown), you notice many schedulers on the list. Check the scheduler description to get clue of what each scheduler does.</p> <p>Locate and click the scheduler name of interest</p>	

to configure its execution frequency.

	<i>Runs again in 42,961s</i>	org.openmrs.module.appointments.scheduler.tasks.MarkAppointmentAsCompleteTask	From 12:00:00AM , Starting on Mar 20 2023
<input type="checkbox"/>	Stopped	Pull Mlab viral load results Task org.openmrs.module.kenyaemrIL.MLabViralLoadResultsPullTask	Runs every 5 hours From 11:59:59PM , Starting on Nov 28 2021
<input type="checkbox"/>	Started <i>Runs again in 60s</i>	Push messages to Ushauri server org.openmrs.module.kenyaemrIL.UshauriDirectPushTask	Runs every 5 minutes From 11:59:59PM , Starting on Nov 28 2021
<input type="checkbox"/>	Started <i>Runs again in 10,561s</i>	Generate IIT ML Predictions org.openmrs.module.kenyaemrml.task.GenerateIITMLPredictionsTask	Runs every 1 days From 03:00:00PM , Starting on Jul 27 2023
<input type="checkbox"/>	Started <i>Runs again in 46,560s</i>	Stock Rules Evaluation Job org.openmrs.module.stockmanagement.api.jobs.StockRuleEvaluationJob	Runs every 1 days From 12:59:59AM , Starting on Oct 01 2022
<input type="checkbox"/>	Started <i>Runs again in 42,961s</i>	Stock Batch Expiry Job org.openmrs.module.stockmanagement.api.jobs.StockBatchExpiryJob	Runs every 1 days From 12:00:00AM , Starting on Oct 01 2022
<input type="checkbox"/>	Stopped	Asynchronous Report Generation And Batch Jobs org.openmrs.module.stockmanagement.api.jobs.AsyncTasksBatchJob	Runs every 1 minutes From 12:59:59AM , Starting on Oct 01 2022
<input type="checkbox"/>	Started <i>Runs again in 0s</i>	Program Discontinuation Task org.openmrs.module.kenyaemrIL.ProgramDiscontinuationTask	Runs every 6 seconds From 11:59:59PM , Starting on Jan 01 2023
<input type="checkbox"/>	Started <i>Runs again in 42,960s</i>	Validate TransferOut Patients org.openmrs.module.kenyaemrIL.ValidateTransferOutsTasks	Runs every 12 hours From 11:59:59PM , Starting on Jul 04 2023
<input type="checkbox"/>	Started <i>Runs again in 480s</i>	Expected Transfer Ins Task org.openmrs.module.kenyaemrIL.PullExpectedTransferInsTask	Runs every 12 minutes From 11:59:59PM , Starting on Jan 01 2023
<input type="checkbox"/>	Stopped	Push messages to DMI server org.openmrs.module.kenyaemrIL.DmiDirectPushTask	Runs every 1 minutes From 11:59:59PM , Starting on Oct 01 2023
<input type="checkbox"/>	Started <i>Runs again in 3,361s</i>	Reminder of scheduled appointment org.openmrs.module.appointments.scheduler.tasks.ReminderForAppointment	Runs every 1 hours From 12:00:00AM , Starting on Apr 28 2024
<input type="checkbox"/>	Stopped	Pull Pending Mpesa Transactions org.openmrs.module.kenyaemr.cashier.api.PullCompletedTransactionsTask	Runs every 12 hours From 06:59:59PM , Starting on Feb 28 2024
<input type="checkbox"/>	Started <i>Runs again in 3,360s</i>	Push messages to Visualization server org.openmrs.module.kenyaemrIL.VisualizationMetricsPushTask	Runs every 1 hours From 11:59:59PM , Starting on Mar 16 2024

DMI scheduler

4. Set Scheduler Parameters

Set the following parameters.

- **Task Configuration:**
This in most cases is already set. Just check to confirm.
- **Schedule:**
 - o Tick the Start on Startup checkbox.
 - o Set start time.
 - o Set repeat intervals (i.e 1hr)
- Save to exit

Scheduler

[Task Configuration](#)

Schedule

[Properties](#)

Schedule

PLEASE NOTE: Changes to the schedule below are NOT passed onto task instances that are already running. After saving your changes, you MUST stop and start the task.

Started:

false

Start on startup:



Start time pattern:

MM/dd/yyyy HH:mm:ss

Start time:

10/01/2023 23:59:59

Repeat interval:

1 hours

- seconds
- minutes
- hours**
- days

Last Execution Time:

Save

4

1

2

3

5. Start the Scheduler

Ensure the scheduler is started.

Steps

- Tick the checkbox against the scheduler (shown)
- Locate the Start button below the list (shown) and click. This will start the scheduler and will execute at the intervals configured in step 5 above.

<input type="checkbox"/>	Started <i>Runs again in 41,279s</i>	Validate TransferOut Patients org.openmrs.module.kenyaemrIL.ValidateTransferOutsTasks
<input type="checkbox"/>	Started <i>Runs again in 2,39s</i>	Expected Transfer Ins Task org.openmrs.module.kenyaemrIL.PullExpectedTransferInsTask
<input checked="" type="checkbox"/>	Stopped Ensure this is checked	Push messages to DMI server org.openmrs.module.kenyaemrIL.DmiDirectPushTask
<input type="checkbox"/>	Started <i>Runs again in 1,680s</i>	Reminder of scheduled appointment org.openmrs.module.appointments.scheduler.tasks.ReminderForAppointment
<input type="checkbox"/>	Stopped	Pull Pending Mpesa Transactions org.openmrs.module.kenyaemr.cashier.api.PullCompletedTransactionsTask
<input type="checkbox"/>	Started <i>Runs again in 1,679s</i>	Push messages to Visualization server org.openmrs.module.kenyaemrIL.VisualizationMetricsPushTask

Click on start start the scheduler

*****THE END*****