

# SOP: Installation of KenyaEMR 3.x 18.6.2 Upgrade v1.10.1

(last updated: Nov 2023)

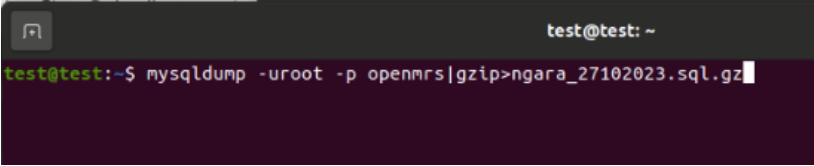
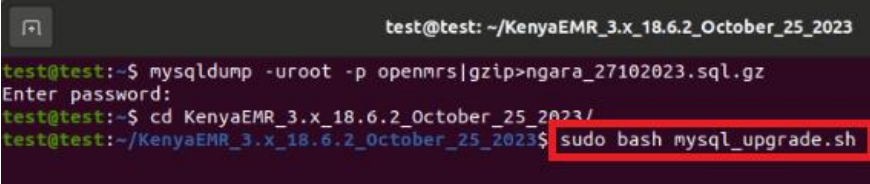
<b>Goal</b>	Effectively use KenyaEMR for quality healthcare care service delivery at facility
<b>Task</b>	Correct installation of KenyaEMR 3.x
<b>Who</b>	HIS focal person, EMR Champion
<b>Requirements</b>	Functional EMR server, Internet, Upgrade package

## Background

We are excited to announce the release of KenyaEMR version 3.x (v18.6.2). This release focuses on upgrading various components for better performance, compatibility, and security. This version comes with an improved user interface to give better user experience for patient centered care delivery.

Before starting the upgrade, please ensure you have taken a backup of your existing database and configurations.

# Upgrade Instructions

Instruction	Illustration
<p><b>Step 1: MySQL Upgrade</b></p> <p>You need to begin by upgrading MySQL to version 8.0</p> <p>Before you start, ensure you backup your database prior to the upgrade.</p> <p><b>Procedure:</b> Open the terminal window and navigate to the directory that contains the upgrade package and execute the following command. <b>(Note: Internet connectivity is required).</b></p>	<ol style="list-style-type: none"><li>1. Backup database using this command: <pre>mysqldump -uroot -p openmrs gzip &gt;facility_name_date.sql.gz</pre></li><li>2. Execute MySQL upgrade command as follows: <pre>sudo bash mysql_upgrade.sh</pre></li></ol>

## Step 2: Restore Databases

Once MySQL upgrade is complete, you need to restore the databases before setting up OpenMRS 3.x.

Perform database restore by sourcing the database that you backed up in step 1 above.

```
londianiemrserver@londianiemrserver: ~/OpenMRS3_Ke
| 45 | root | localhost:48588 | NULL | Sleep | 438 | | NULL
| 46 | root | localhost:48594 | NULL | Sleep | 2 | | NULL
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)

mysql> use openmrs;
Database changed
mysql> source /home/londianiemrserver/OpenMRS3_KenyaEMR_18.6.2_latest/openmrs-20231024135438.sql
Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected, 1 warning (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

### Step 3: Upgrade to Platform OpenMRS 2.4

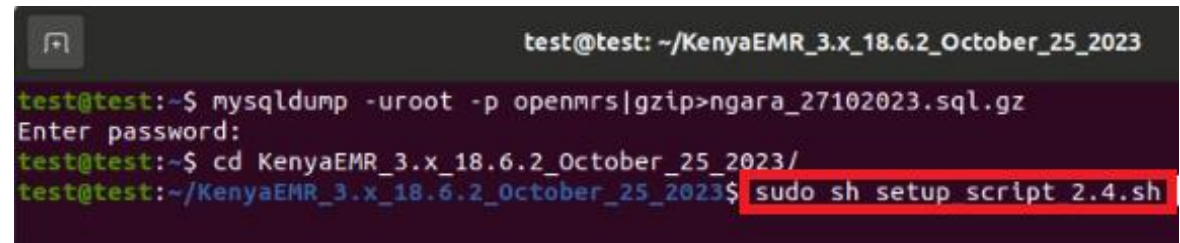
Obtain the upgrade package from GitHub repo

To initiate the upgrade, navigate to the package directory (i.e. `/home/upgrade_package`)

Execute the following command to upgrade:

```
sudo sh setup_script_2.4.sh
```

**NB:** Wait for the upgrade to complete successfully.



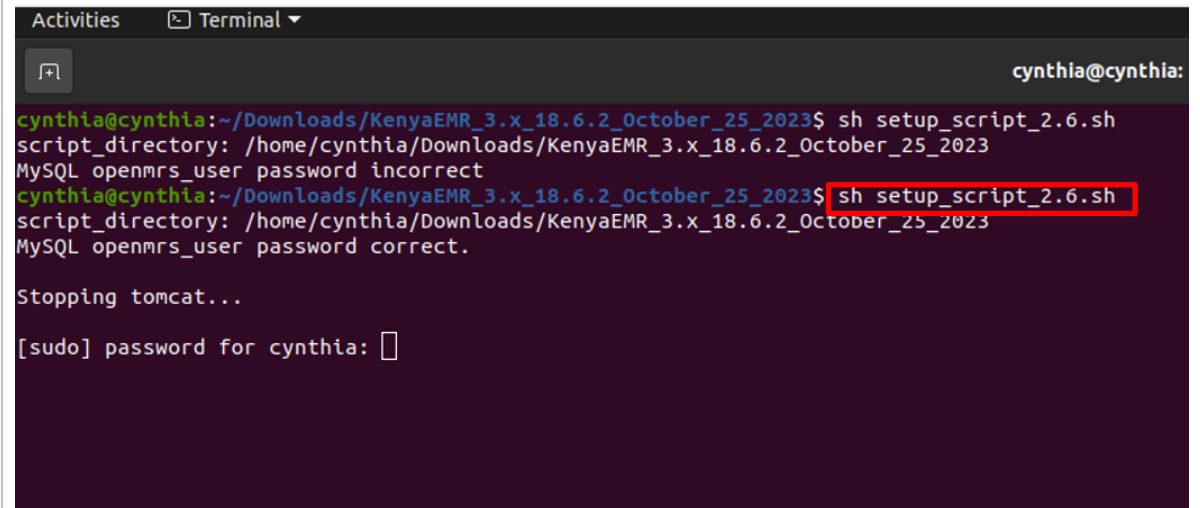
```
test@test: ~/KenyaEMR_3.x_18.6.2_October_25_2023
test@test:~$ mysqldump -uroot -p openmrs|gzip>ngara_27102023.sql.gz
Enter password:
test@test:~$ cd KenyaEMR_3.x_18.6.2_October_25_2023/
test@test:~/KenyaEMR_3.x_18.6.2_October_25_2023$ sudo sh setup_script_2.4.sh
```

### Step 4: Upgrade to OpenMRS 2.6 Platform

Once the upgrade to OpenMRS 2.4 above upgrade is completed, execute the following command to upgrade to upgrade to OpenMRS 2.6 platform.

```
sudo sh setup_script_2.6.sh
```

**Note:** Wait until the upgrade is completed successfully. Confirm by refreshing browser to load KenyaEMR login page.



```
Activities Terminal
cynthia@cynthia:
cynthia@cynthia:~/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023$ sh setup_script_2.6.sh
script_directory: /home/cynthia/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023
MySQL openmrs_user password incorrect
cynthia@cynthia:~/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023$ sh setup_script_2.6.sh
script_directory: /home/cynthia/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023
MySQL openmrs_user password correct.

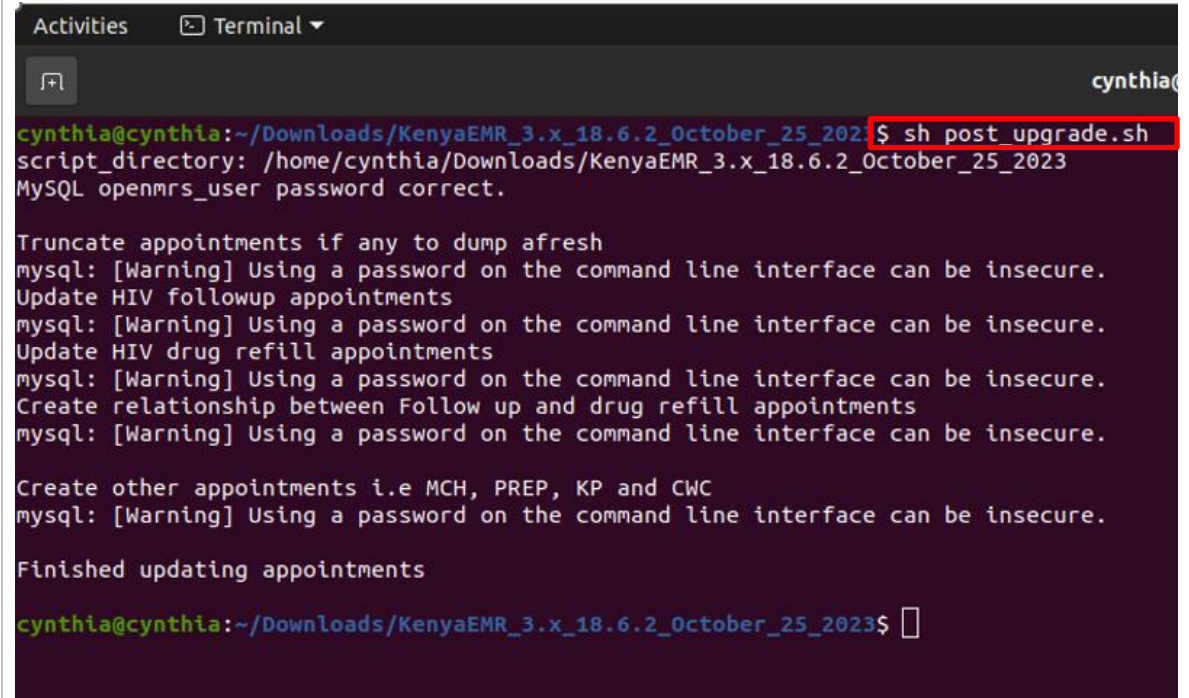
Stopping tomcat...

[sudo] password for cynthia: 
```

### Step 5: Post upgrade script

Once the upgrade has been successful. Run the post upgrade command as follows:

```
sudo sh post_upgrade.sh
```



The screenshot shows a terminal window with the following output:

```
Activities Terminal
cynthia@
cynthia@cynthia:~/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023$ sh post_upgrade.sh
script_directory: /home/cynthia/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023
MySQL openmrs_user password correct.

Truncate appointments if any to dump afresh
mysql: [Warning] Using a password on the command line interface can be insecure.
Update HIV followup appointments
mysql: [Warning] Using a password on the command line interface can be insecure.
Update HIV drug refill appointments
mysql: [Warning] Using a password on the command line interface can be insecure.
Create relationship between Follow up and drug refill appointments
mysql: [Warning] Using a password on the command line interface can be insecure.

Create other appointments i.e MCH, PREP, KP and CWC
mysql: [Warning] Using a password on the command line interface can be insecure.

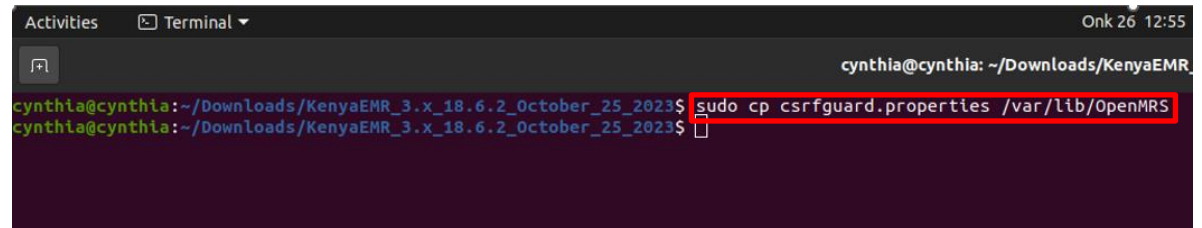
Finished updating appointments

cynthia@cynthia:~/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023$
```

## Step 6: Resolving CSRF Token Issues

For instances where CSRF token issues might arise, copy the provided properties file to the OpenMRS directory using the following command:

```
sudo cp csrfguard.properties  
/var/lib/OpenMRS
```

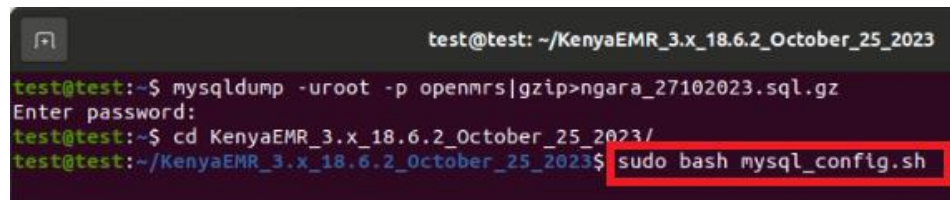


A terminal window titled 'Terminal' showing the command `sudo cp csrfguard.properties /var/lib/OpenMRS` being executed. The prompt is `cynthia@cynthia: ~/Downloads/KenyaEMR_3.x_18.6.2_October_25_2023`. The command is highlighted with a red box.

## Step 7: MySQL Optimization

To optimize MySQL post-upgrade and ensure it's configured correctly for KenyaEMR, run:

```
sudo bash mysql_config.sh
```



A terminal window titled 'Terminal' showing the command `sudo bash mysql_config.sh` being executed. The prompt is `test@test: ~/KenyaEMR_3.x_18.6.2_October_25_2023`. The command is highlighted with a red box.

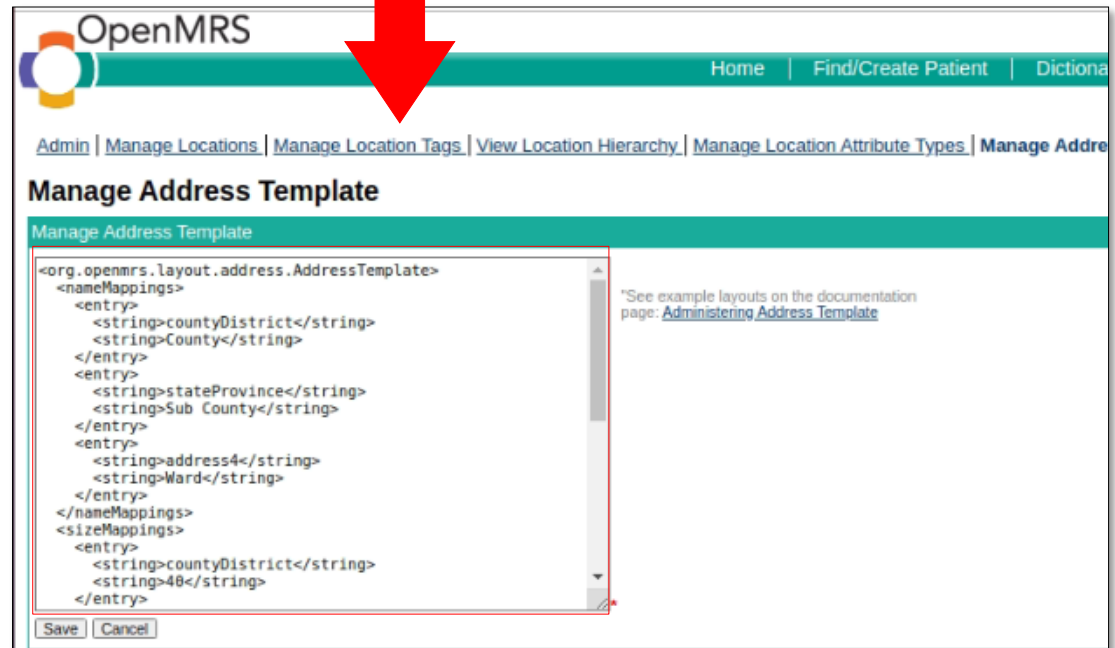
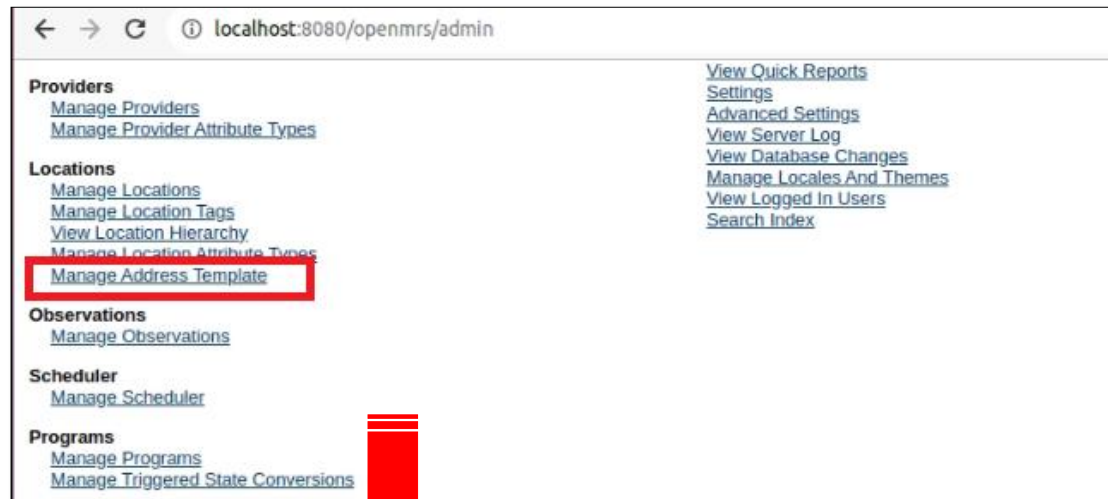
## Step 8: Address template

Once the server is up and running update the address template to have the following script.

### Procedure

Login to KenyaEMR as Admin, navigate to Home, Developer, Legacy admin UI; Under Locations select '**Manage Address Template**' Replace the Template with the one below as shown and 'Save'

```
<org.openmrs.layout.address.AddressTemplate>
  <nameMappings>
    <entry>
      <string>countyDistrict</string>
      <string>County</string>
    </entry>
  </nameMappings>
  <requiredInHierarchy>true</requiredInHierarchy>
  <entry>
    <string>stateProvince</string>
    <string>Sub County</string>
  </entry>
  <entry>
    <string>address4</string>
    <string>Ward</string>
  </entry>
</nameMappings>
<sizeMappings>
  <entry>
    <string>countyDistrict</string>
    <string>40</string>
  </entry>
</sizeMappings>
</entry>
```



```

    <string>stateProvince</string>
    <string>40</string>
  </entry>
  <entry>
    <string>address4</string>
    <string>40</string>
  </entry>
</sizeMappings>
<elementDefaults>
  <entry>
    <string>countyDistrict</string>
    <string></string>
  </entry>
</elementDefaults>
<requiredElements>
  <string>countyDistrict</string>
  <string>stateProvince</string>
  <string>address4</string>
</requiredElements>
<lineByLineFormat>
  <string>address4</string>
  <string>countyDistrict,
stateProvince</string>
</lineByLineFormat>
  <maxTokens>0</maxTokens>
</org.openmrs.layout.address.AddressTemplate>

```

## Important Reminders

- Always backup before performing an upgrade.
- These instructions assume you have necessary permissions to execute shell scripts and make changes to your system.
- For further support, contact KenyaHMIS service desk through the toll free number.

**THE END**