

SOP: OPENMRS 2.x UPGRADE USING AUTO-SCRIPT

This is a technical user guide on the automated process of OpenMRS 2.x platform upgrade and configuration using an automated installation script. The document outlines the process for installation on Ubuntu Desktop and Ubuntu Server (Version 20.04).

Objective: To provide simplified guidance to users on how to perform OpenMRS 2.x platform upgrade on Ubuntu 20.04 environment.

Target audience: SI, Dev, M&E, HIS

Last Update: 20th Jul 2021

OpenMRS Dependencies:

The following dependencies are required for successful OpenMRS installation and will be automatically installed by the script.

- i. Ubuntu 20.04LTS
- ii. Java 8
- iii. Tomcat 9
- iv. MySQL 5.6

Other Requirements:

- Stable internet access
- Upgrade package
- Installation Script

Step 0: Backup the database

You may initiate database backup manually by running the **openmrs-backup-script** script or you may perform MySQL dump by running the following command:

```
mysqldump -uroot -p openmrs|gzip > backup_name_and date.sql.gz [ENTER]
```

Step 1: Obtain installation resources:

Obtain a functional copy of ubuntu 20.04 installation package. This could be either Ubuntu desktop or Ubuntu Server. You can obtain the Ubuntu .iso file from [here](#). Refer [to this link](#) for a guide on how to install Ubuntu Server 20.04LTS

Step 2: Obtain installation resources:

Obtain correct OpenMRS Upgrade resources and copy to **Home directory**. Confirm that the following resources are available:

- i. Autoback folder
- ii. Datatools folder
- iii. Db folder
- iv. Dictionary folder
- v. Modules folder
- vi. OpenMRS -backup-tools folder
- vii. Scripts folder
- viii. Tomcatinstallation
- ix. Installsetup.bash file
- x. Openmrs.war file
- xi. Setup_script file

The Installation folder should be name as **OMR2.x**. The content should look as shown in the diagram.

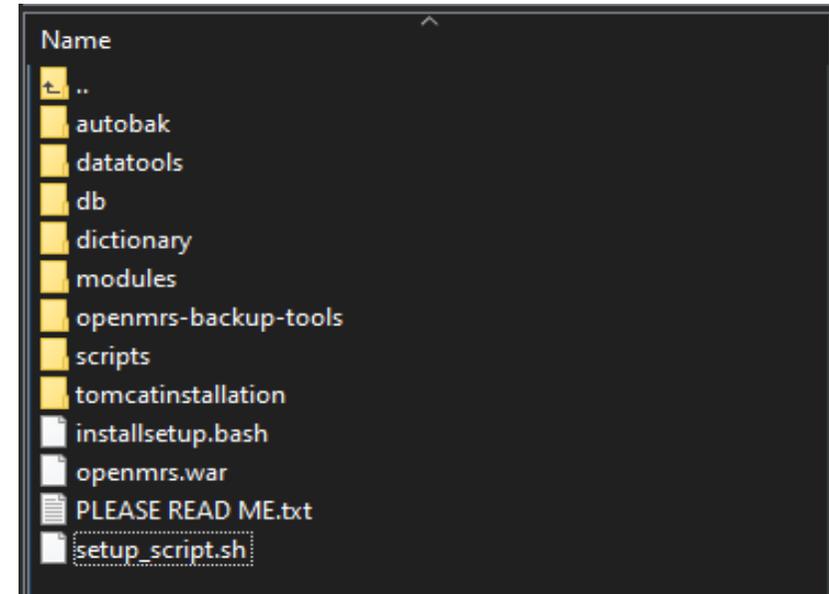


Fig1. Content of the OMR2.x resources folder

Step 3: Prepare environment for script execution

- i. Pick up the backup and extract a copy in the **db** directory. Rename the file to **openmrs .sql**

NB: It is imperative that you have all the files and folders required as indicated in **Fig 1** above.

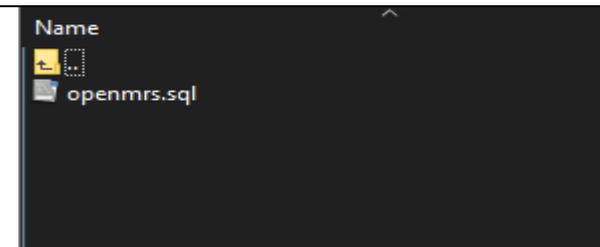


Fig2. Renamed backup database

Step 4: Execute the upgrade file. (.bash file)

Open the terminal window and navigate to the directory that contains the resources. Use `Ctrl+Alt+T`

Navigate into the folder: `cd /folder_name [ENTER]`

Type the following command to initiate the upgrade process:

```
sudo bash installsetup.bash [ENTER]
```

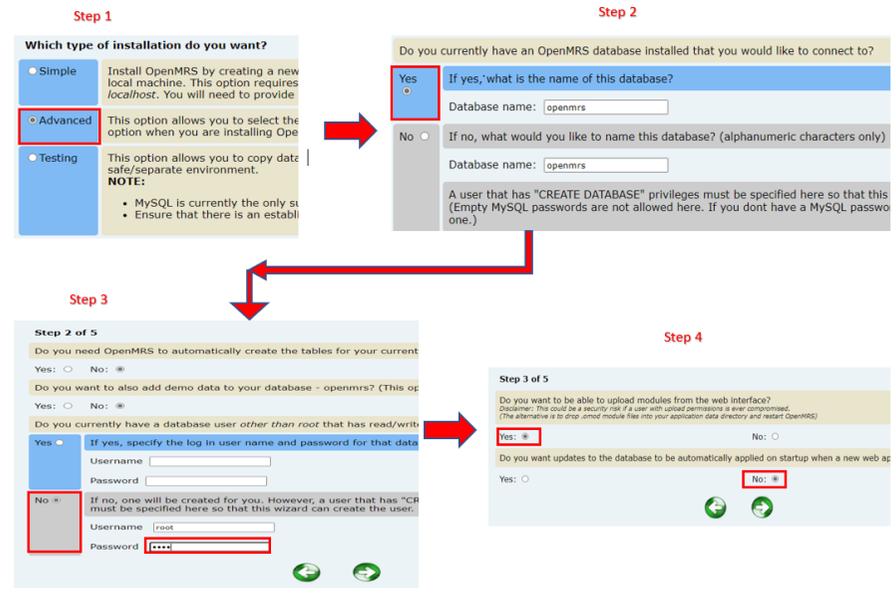
Enter the correct sudo password

Monitor the process and respond to all the prompts as displayed on the screen during the process.

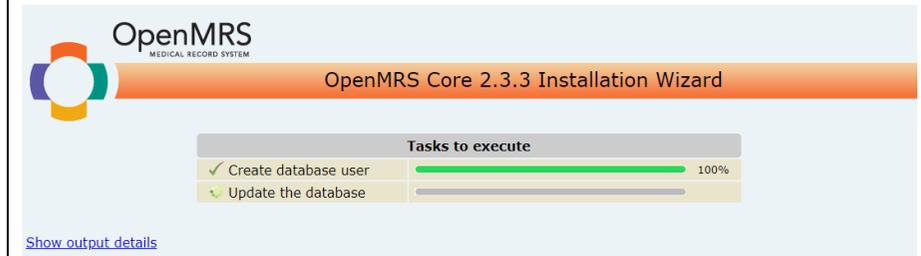
The setup will perform the following actions:

- Install ansible playbook app
- Install java 8
- Install and configure tomcat9
- Install MySQL 5.6
- Restore the facility database
- Create cron-job for auto-backup
- Install and setup KenyaEMR data tools
- Perform all the housekeeping tasks

```
botienoh@botienoh:~$ cd OMR2.xFull/
botienoh@botienoh:~/OMR2.xFull$ ll
total 99384
drwxrwxr-x 10 botienoh botienoh 4096 Jul 19 08:08 ./
drwxr-xr-x 6 botienoh botienoh 4096 Jul 19 08:04 ../
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:44 autobak/
drwxrwxr-x 3 botienoh botienoh 4096 Jul 14 09:44 datatools/
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:48 db/
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:45 dictionary/
-rw-rw-r-- 1 botienoh botienoh 3947 Jul 14 10:44 installsetup.bash
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:45 modules/
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:45 openmrs-backup-tools/
-rw-rw-r-- 1 botienoh botienoh 101714214 Jul 12 07:24 openmrs.war
-rw-rw-r-- 1 botienoh botienoh 1750 Jul 6 06:05 'PLEASE READ ME.txt'
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:45 scripts/
-rw-rw-r-- 1 botienoh botienoh 1553 Jul 1 07:49 setup_script.sh
drwxrwxr-x 2 botienoh botienoh 4096 Jul 14 09:45 tomcatinstallation/
botienoh@botienoh:~/OMR2.xFull$ sudo bash installsetup.bash █
```

<p>Step 5: Launch OpenMRS</p> <p>Once the process in Step 4 is completed, it is time to launch the OpenMRS.</p> <ul style="list-style-type: none"> - Start the browser and enter the correct address i.e http://localhost:8080/openmrs - OpenMRS will open in maintenance mode as shown - Click "Next" (Green button) 	 <p>The screenshot shows the 'OpenMRS Core 2.3.3 Installation Wizard' interface. It asks 'Which language do you prefer?' with a dropdown menu set to 'English' and a checkbox for 'Remember this choice'. A green arrow button is visible at the bottom.</p>
<ul style="list-style-type: none"> - On the next screen, select "Advanced" as type of installation (Step 1) - On the next screen Select "Yes" (Step 2) - Next click "No" on the next screen and enter MySQL root password (step 3) - Select "Yes" on the next screen on the first question and select "No" on the second one (Step 4) - One the last screen (Step 5 of 5), leave all the fields blank and click "Next" - Under "Review" page, scroll down and click "Next" to initiate the database updates. 	 <p>The sequence of screenshots shows the following steps:</p> <ul style="list-style-type: none"> Step 1: 'Which type of installation do you want?' with 'Advanced' selected. Step 2: 'Do you currently have an OpenMRS database installed that you would like to connect to?' with 'Yes' selected and 'Database name: openmrs' entered. Step 3: 'Do you need OpenMRS to automatically create the tables for your current database?' with 'No' selected. Below, 'Do you currently have a database user other than root that has read/write privileges?' with 'No' selected and 'root' entered for the username. Step 4: 'Do you want to be able to upload modules from the web interface?' with 'Yes' selected and 'No' selected for the second question.

Database update progress window should look like the one shown here....->
Wait for the updates to complete successfully and the KenyaEMR login page displays.



Section 2: Troubleshooting

1. KenyaEMR launches with a red ribbon:

This may point to issues with the database definitions or lack of proper access rights to “openmrs_user”.

a. Fix User rights

- Log into MySQL and grant all the privileges to “openmrs_user” (`grant all privileges on *.* to 'openmrs_user'@'localhost';`)
[ENTER]
- Persist the privileges: (`flush privileges;`) [ENTER]

```
mysql> grant all privileges on *.* to 'openmrs_user'@'localhost';  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> flush privileges;  
Query OK, 0 rows affected (0.01 sec)  
  
mysql>
```

b. Fix database definitions issues

- Log into MySQL and drop the **openmrs** database
- Create new **openmrs** database and make it default
- Source the facility database into the newly created one
- Pick the `kenyaemr_upgrade_package_18.0.0` and run the `setup_file.sh` normally.
- Wait till the process is completed.
- Launch the browser and launch KenyaEMR page.
- Log in using Admin username.
- Set the default facility before you continue.

THE END