

SOP: How to Setup and Use KenyaHMIS Toolkit

Last updated July 2023

Tasks:	To use install and use the KenyaHMIS Toolkit
Objective:	<ul style="list-style-type: none">- Outline how to install required dependencies for the toolkit- Provide the process of toolkit installation
Target audience	<ul style="list-style-type: none">- EMR System Admin, Advanced users, ICT Support staff
Requirements:	<ul style="list-style-type: none">- Linux environment, KenyaHMIS Toolkit package downloaded from GitHub, <i>Root</i> access rights, Internet

Introduction

Health Information products often undergo routine enhancements and bug fixes as part of system maintenance to align to evolving user and client needs. This necessitates facilities to perform system upgrades whenever new versions are released. Previously, this operation required that the facility downloads new system versions from KenyaHMIS GitHub repository and perform laborious manual system upgrade. This has worked well for some facilities while it has been a technical nightmare for others – especially for facilities without technical personnel on the ground.

With the introduction of KenyaHMIS Toolkit, system upgrade functions at facility level have been made easier with very minimal risks. The toolkit notifies users of new System versions availability and provides utilities for handsfree installation of the upgrades, while ensuring backup and roll-back functionalities in the unlikely event that something goes wrong during the upgrade.

The other use case for this toolkit is to support a one-touch backup operation, where a user only needs to click a button and the system performs the rest. This complements the existing database options being used at various facilities.

Setting up the toolkit.

The EMR server need to be connected to the internet to install the dependencies as well as download the toolkit package from GitHub Repository.

Steps:

- i. Obtain toolkit from GitHub ([got to GitHub](#)) and place it in the **Home** Directory
- ii. Open Linux terminal (Ctrl+Alt+T) and run the following command to install Java FX, a dependency for the toolkit running Java.

```
sudo apt -y install openjfx
```

Once installed, navigate to your Downloads folder to use the package manager to run the toolkit using the `-i` option.

```
sudo dpkg -i kenyahmistoolkit-1.1.3.deb
```

Note: `kenyahmistoolkit-1.1.3.deb` is the name of the package downloaded from GitHub (It may be different).

Wait for the installation to complete. Once successfully installed, the application will open.

Change Java Alternative to Java 8

The toolkit by default installs Java 11 while KenyaEMR currently uses Java 8. This creates a conflict hence KenyaEMR might not run well. Therefore, you need to reset default java to Java 8 as follows:

- i. Execute the following command.

```
sudo update-alternatives --config java
```

```
botienoh@Ubuntu20:~$ sudo update-alternatives --config java
There are 2 choices for the alternative java (providing /usr/bin/java).

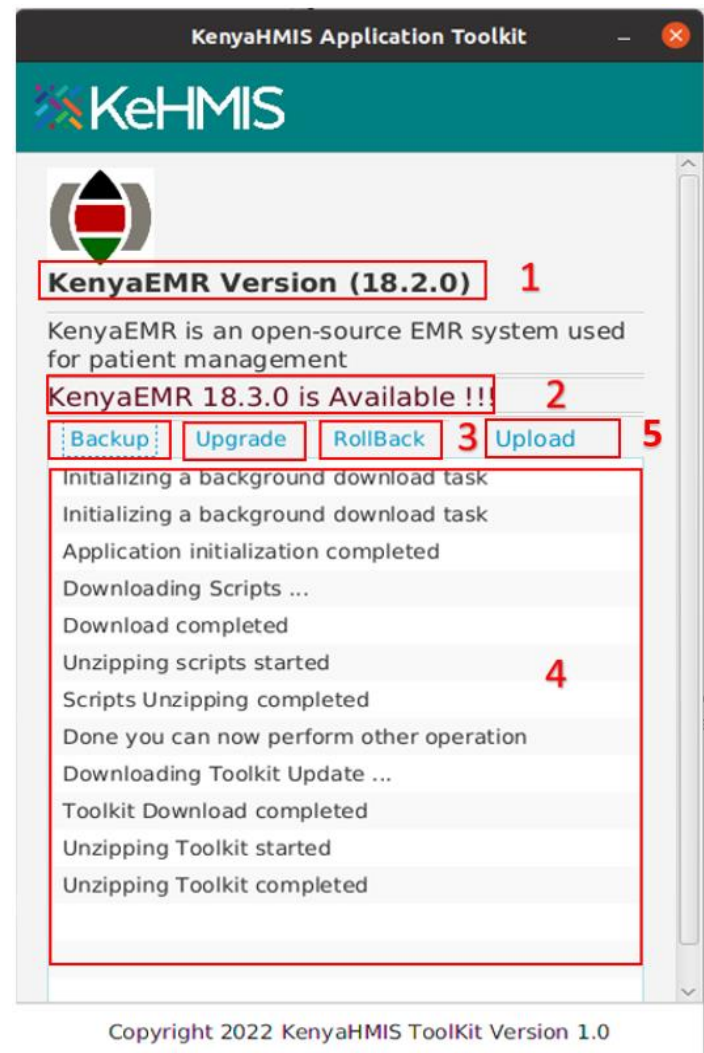
  Selection    Path                                          Priority  Status
  -----
  0            /usr/lib/jvm/java-11-openjdk-amd64/bin/java  1111     auto mode
  1 STEP 1      /usr/lib/jvm/java-11-openjdk-amd64/bin/java  1111     manual mode
  * 2          /usr/lib/jvm/java-8-openjdk-amd64/jre/bin/java 1081     manual mode

Press <enter> to keep the current choice[*], or type selection number:  STEP 2
```

- ii. This will generate a list of installed Java versions. The one marked with asterisk is the current default. Locate the corresponding value for java 8. (Check under selection column. See **STEP 1**).
- iii. Enter the value and press enter (**STEP 2**). Press ENTER.
- iv. Restart tomcat (i.e. `sudo service tomcat9 restart`)

The screenshot here shows the basic application interface. The sections are numbered for easy description as below:

1. The current version of EMR installed at the facility.
2. A flag that reminds the user if new version of EMR is detected online.
3. Basic operation of the toolkit as follows:
 - a. **Backup**: Click to perform EMR database backup operations.
 - b. **Upgrade**: Click to initiate the automatic EMR upgrade process.
 - c. **Rollback**: Click this to initiate rollback of the upgrade. Use only if an error is encountered during the automatic upgrade process.
4. Log area that displays the current actions being executed by the toolkit.
5. **Upload**: Click on this to perform upgrade in offline mode. You need an offline zipped copy of KenyaEMR upgrade package stored on the computer or in an external drive. The package can be obtained from GitHub repository.



Accessing the backups:

The toolkit's operation folder is found in **opt/** directory where all the backups and all the resources required for its functions are stored. For instance. You can obtain the EMR Database backups from:

```
/opt/kehmisApplicationToolbox/rollback/db
```

NB: On first install, the application will download backup and rollback scripts then check if there is **kenyahmistoolkit** update available online. If and update exist, the tool downloads and updates itself automatically. This requires internet access.

Uninstallation

To uninstall the toolkit, execute the following command as sudo:

```
sudo dpkg --purge kenyahmistoolkit
```

Press ENTER

THE END