



FEDERAL MINISTRY OF
HEALTH

DATA.FI NIGERIA TOOL

LAMISPLUS 2.0

INSTALLATION GUIDE

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Acknowledgments

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Introduction

Lafia Management Information System (LAMIS) is an electronic medical record storage and retrieval system suitable for recording patient information for different medical domains. The development of the LAMIS has since been optimized to birth its open-source system as LAMISPlus

LAMISPlus EMR is an opensource platform built on open standards to enhance the effectiveness and efficiency of health service delivery in health facilities. The system design is centered around the needs of the patient care, the service provider, and the health programs to improve the quality of care and service deliveries, and the use of data for decision making at all levels.

LAMISPlus has been designed to support both point of care (POC) services and Retrospective data entry (RDE) along the standard health facility workflow and will enable health providers to track clients across the continuum, generating data for improving clinical care, and ultimately informing client-centered approaches and enabling cohort analyses and program monitoring

LAMISPlus is a Java application and therefore requires Java Runtime Environment (JRE) and PostgreSQL to be installed.

The installation guide highlights a step-by-step process for installing all the required dependencies for running the LAMISPlus application on your computer system.

Minimum Hardware Requirements

Device Type	Desktop, Laptop, Workstation and Server
Processor	Minimum Intel core i3 processor
Memory	4GB Memory
Hard Drives	150GB Storage space

Recommended Software and Dependencies

OS	Windows 7,8,10, Server 2016 -2019.
JRE	Version 1.8
PostgreSQL	Version 14
Recommended Browsers	Google Chrome, Mozilla Firefox
Modules	LAMISPlus installation zip file

STEP 1

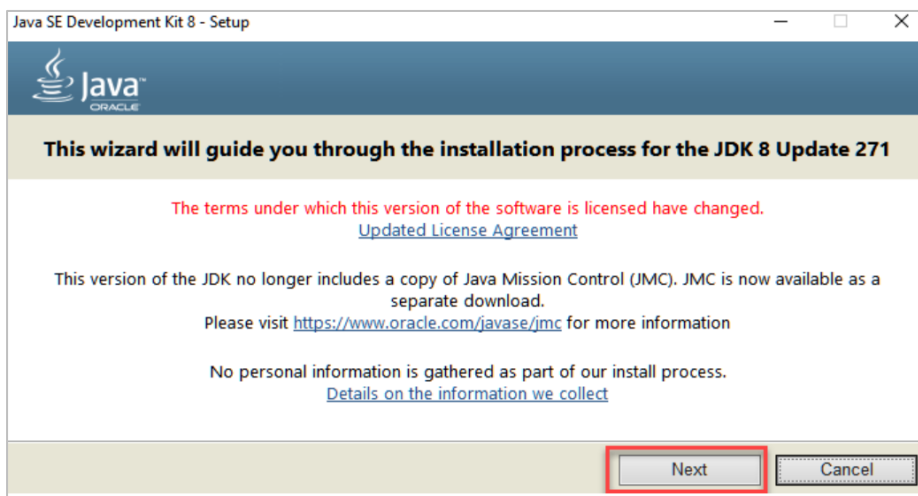
Java Runtime Environment Installation

The Java Runtime Environment (JRE) is a software layer that runs on top of a computer's operating system software and provides the resources that a specific Java program needs to run. Follow the step below to install Java on your system.

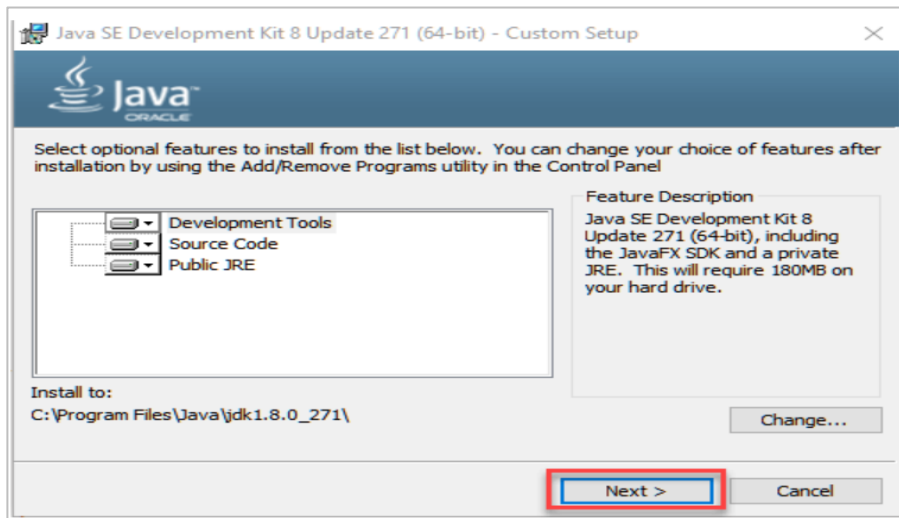
1. Using your preferred web browser, navigate to the Oracle Java Downloads page.
2. On the Downloads page, click the x64 Installer download link under the Windows category. The Java version 8 is the latest long-term support version of Java at the time the installation guide was developed.

Solaris SPARC 64-bit Compressed Archive	94.96 MB	jdk-8u331-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	134.69 MB	jdk-8u331-solaris-x64.tar.Z
Solaris x64 Compressed Archive	92.86 MB	jdk-8u331-solaris-x64.tar.gz
Windows x86 Installer	159.0 MB	jdk-8u331-windows-i586.exe
Windows x64 Installer	172.54 MB	jdk-8u331-windows-x64.exe

3. Once the Java JDK 8 download is complete, double-click the downloaded file to start the installation, and click Next.



- Specify the installation folder, you can choose your own folder or keep the **default** folder and click Next.



- Follow the onscreen instructions in succeeding steps to install Java 8. Once you install Java in windows, click Close.

STEP 2

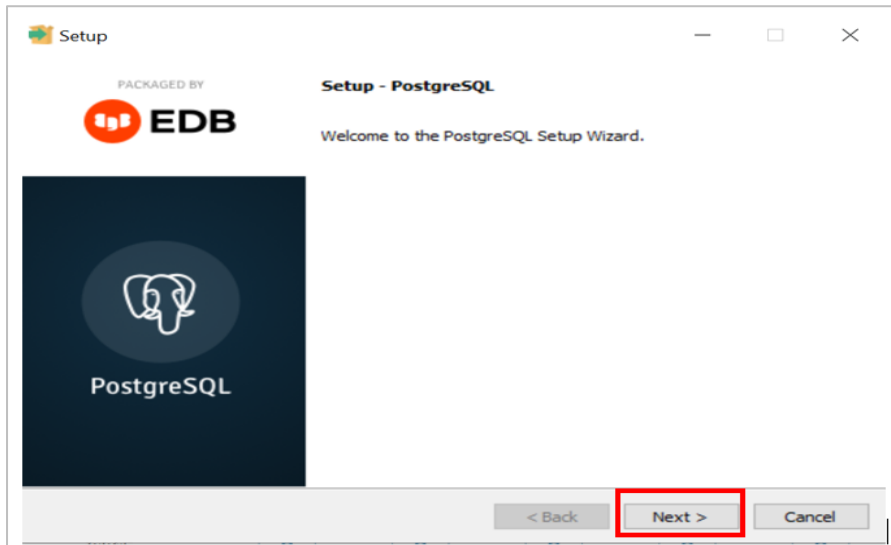
POSTGRESQL INSTALLATION

PostgreSQL is a powerful, open-source object-relational database system with over 30 years of active development that has earned it a strong reputation for reliability, feature robustness, and performance. Follow the steps below to install PostgreSQL on your system.

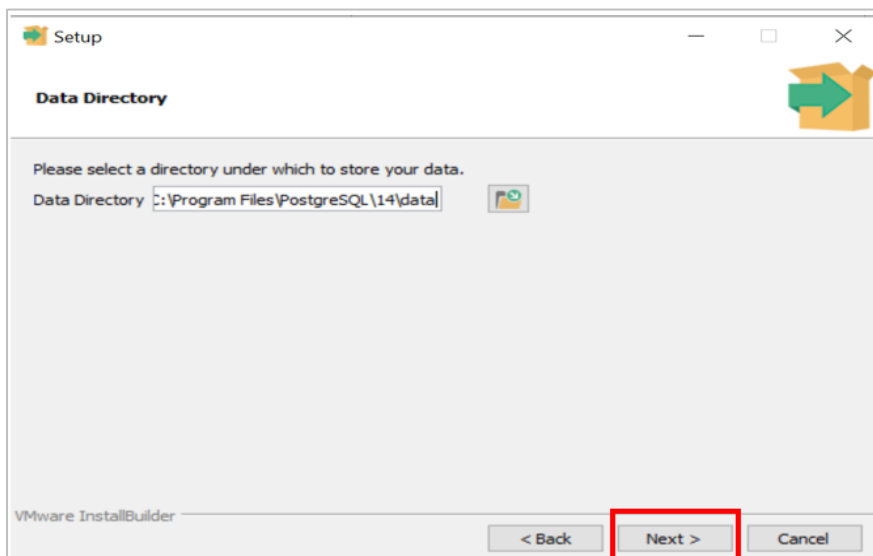
- Before installing PostgreSQL, you need to [download the installation file](#) from the EDB website.

PostgreSQL Version	Linux x86-64	Linux x86-32	Mac OS X	Windows x86-64	Windows x86-32
14.3	postgresql.org	postgresql.org			Not supported
13.7	postgresql.org	postgresql.org			Not supported
12.11	postgresql.org	postgresql.org			Not supported

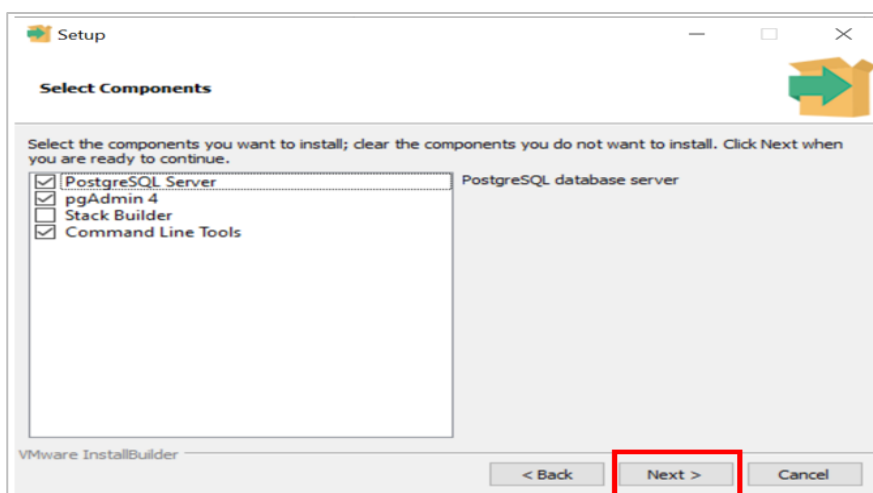
2. Double click on the installer file, an installation wizard window will appear. Click Next.



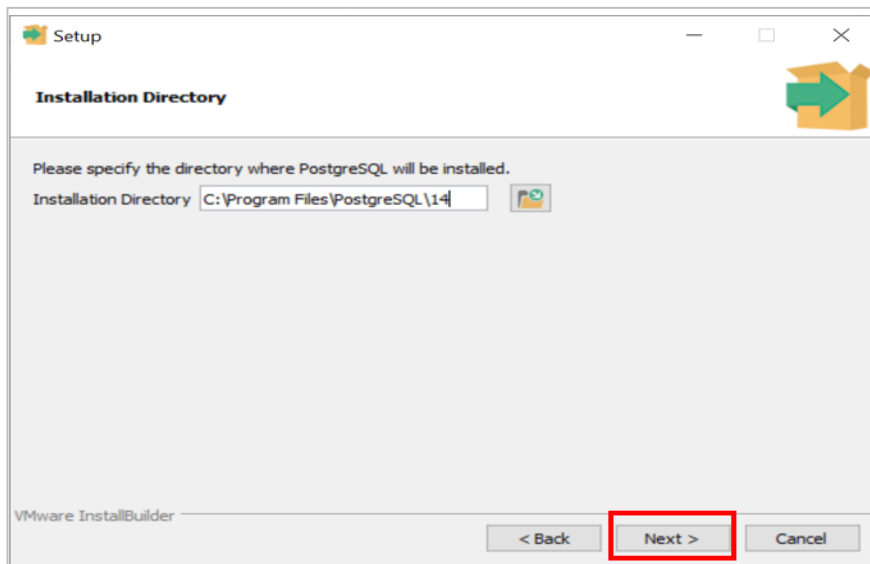
3. Specify installation folder, you can choose your own folder or keep the **default** folder and click Next.



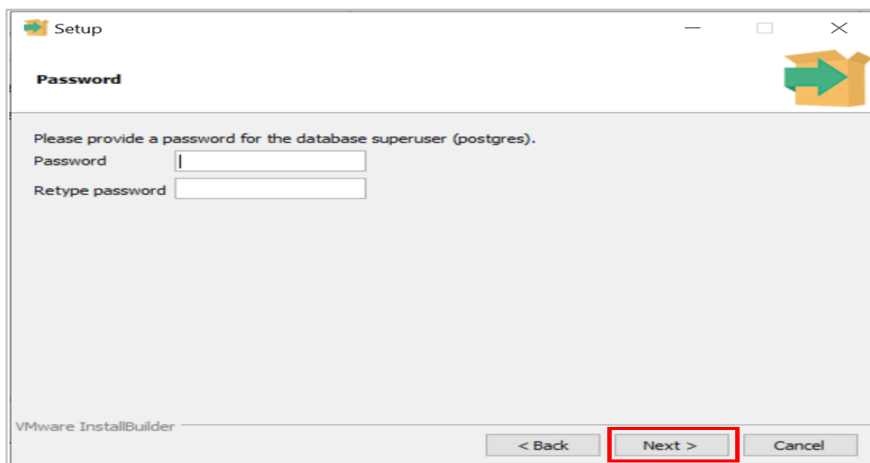
4. Select software components to install:



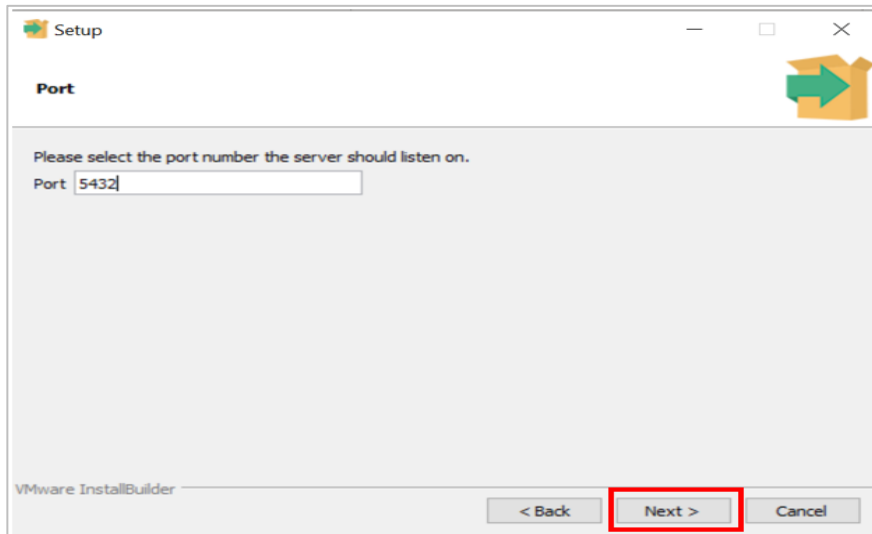
- The PostgreSQL Server to install the PostgreSQL database server
- pgAdmin 4 to install the PostgreSQL database GUI management tool
- Command Line Tools to install command-line tools such as psql, pg_restore, etc.
- Stack Builder provides a graphic user interface (GUI) that allows you to download and install drivers that work with PostgreSQL. Select the database directory to store the data or accept the default folder. And click the Next button.



5. Enter the password for the database superuser (postgres). Retype it to confirm and click Next.



6. Enter a port number on which the PostgreSQL database server will listen. You can keep the default port 5432 and click Next.

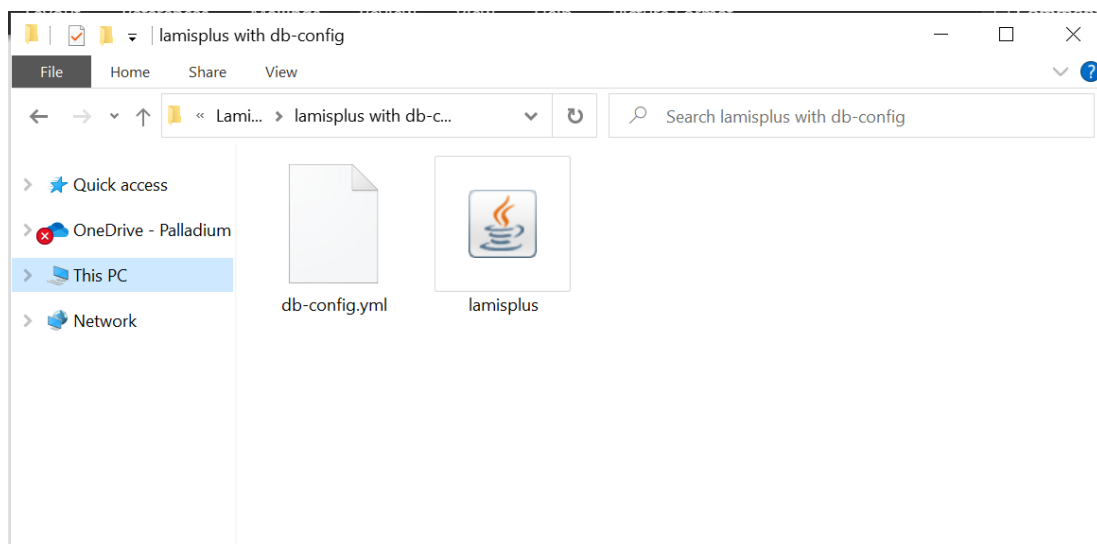


7. Follow the onscreen instructions in succeeding steps to install PostgreSQL. Once you install Java in windows, click Finish.

STEP 3

LAMISPlus INSTALLATION

1. Extract LAMISPlus installation zip file into a directory on your system. Open the extracted folder, you should see the following files in the folder: application.yml, Launcher.bat, lamisplus.jar



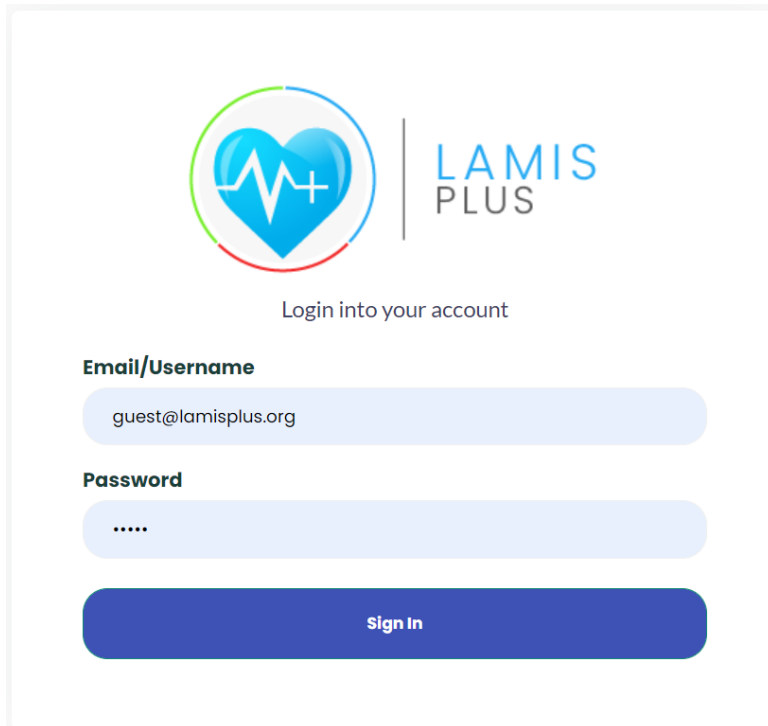
2. Right click on application.yml and select open with Notepad to change the PostgreSQL credentials.
3. Change the database name to the database you created on your pgAdmin
4. Change only the password to the password you created during PostgreSQL installation. Press Ctrl+ S on your keyboard to save the changes, then close the file.

```
db-config.yml - Notepad
File Edit Format View Help
spring:
  datasource:
    driver-class-name: org.postgresql.Driver
    username: postgres
    password: test
    url: jdbc:postgresql://localhost:5432/lamisplus
    hibernate:
      ddl-auto: none
      event.merge.entry_copy_observer: allow
    hikari:
      auto-commit: true
      data-source-properties:
        cachePrepStmts: true
        prepStmtCacheSize: 250
        prepStmtCacheSqlLimit: 2048
        useServerPrepStmts: true
      maximum-pool-size: 20
      minimum-idle: 5
  jpa:
    database: POSTGRESQL
    show-sql: true
    open-in-view: false
    properties:
      hibernate.enable_lazy_load_no_trans: true
lamis:
  temp-dir: runtime/
  module-path: modules
lamisplus:
  datasource:
    module:
      driver-class-name: org.postgresql.Driver
      username: postgres
      password: emeka
      url: jdbc:postgresql://localhost:5432/test2
      hikari:
        auto-commit: true
        data-source-properties:
          cachePrepStmts: true
          prepStmtCacheSize: 250
          prepStmtCacheSqlLimit: 2048
```

5. In the LAMISPlus application folder, double click on Launcher to start the application. Wait for the application to start.
6. The application automatically opens up on your browser or Open your browser and type <http://localhost:8383> to access LAMISPlus application.
7. Use the default login details provided to login to the system

STEP 4

Logging into LAMISPlus



The login page features the LAMIS Plus logo, which consists of a heart with a white ECG line and a plus sign inside, surrounded by a circular border with green, blue, and red segments. To the right of the logo, the text "LAMIS PLUS" is displayed in a blue, sans-serif font. Below the logo and text, the instruction "Login into your account" is centered. The form includes two input fields: "Email/Username" with the value "guest@lamisplus.org" and "Password" with four dots. A blue "Sign In" button is positioned at the bottom of the form.

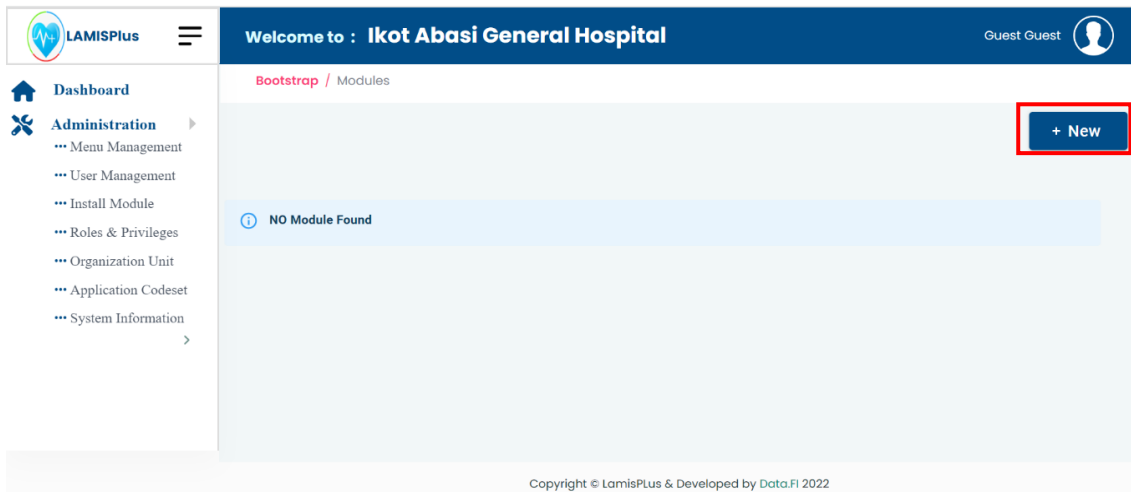
1. On the login page, enter the default login credentials. The default login credential is:
Username: guest@lamisplus.org
Password: 12345
2. If the Login was successful, you will be redirected to the dashboard as seen below



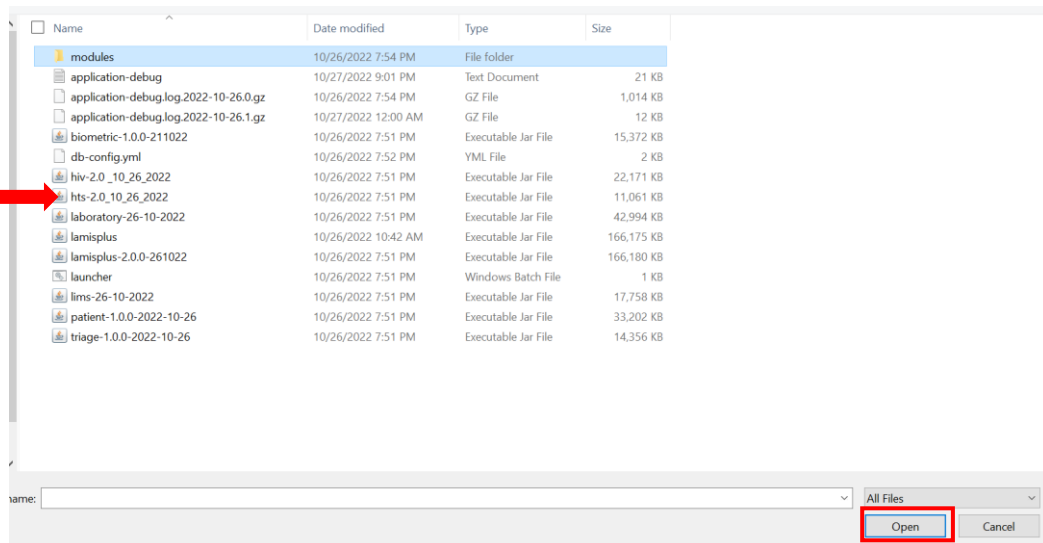
3. The next step is to install the modules. Select the “Install Module” tab on the left side of the screen. The modules are to be installed in a particular order, as some modules are dependent on one another.

The modules will be installed in the order highlighted below.

1. patient
2. triage
3. laboratory
4. HIV
5. HTS
6. LIMS
7. REPORT
8. NDR
9. Pharmacy
10. Consultation



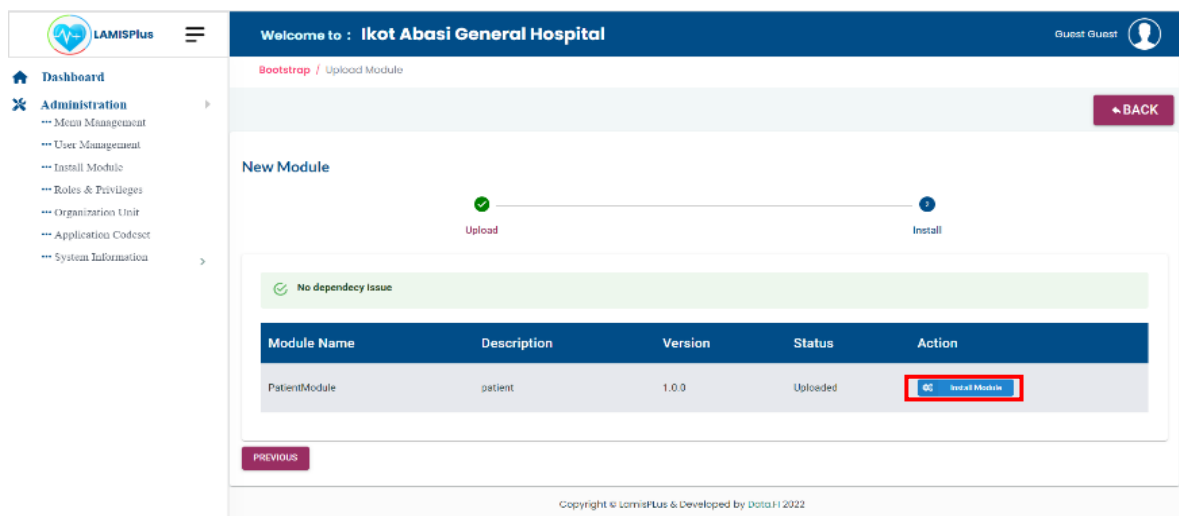
4. Select “New” as seen in the image above to install a new module. A redirected page is displayed for you to select the module(s) in the module file path on your system as seen in the image below.



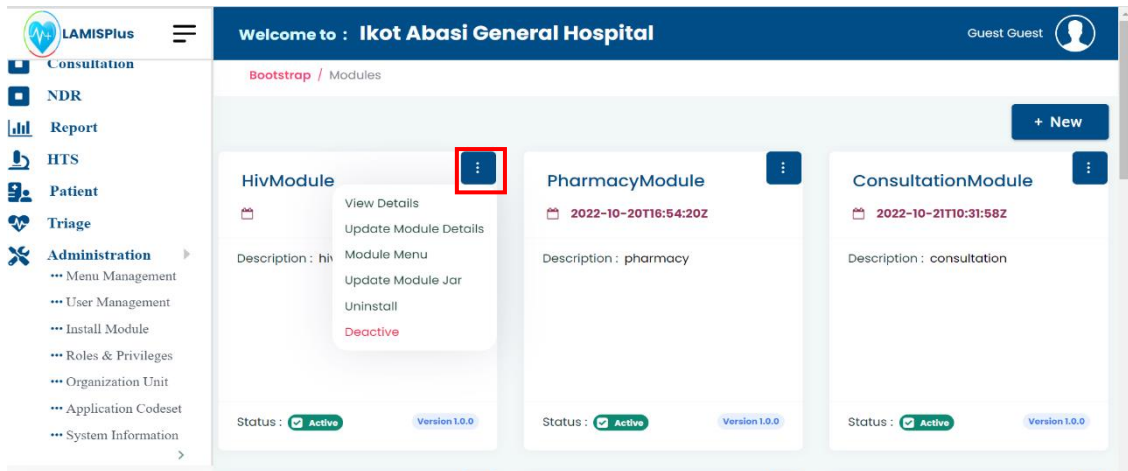
5. Select the module jar and select open to install the module(s). select the **“upload Module”** tab to load the module and then select **“install module”**



6. Select Upload Module as highlighted in the figure above. The module is loaded and displays a notification that indicates if the module requires a dependent module or not.
7. If the notification displays **“No dependency issue”** it means that the module does not require a dependent module and will be installed successfully.



- Select the “install module” to complete the module installation. Repeat the steps to install all required modules in the order highlighted above.



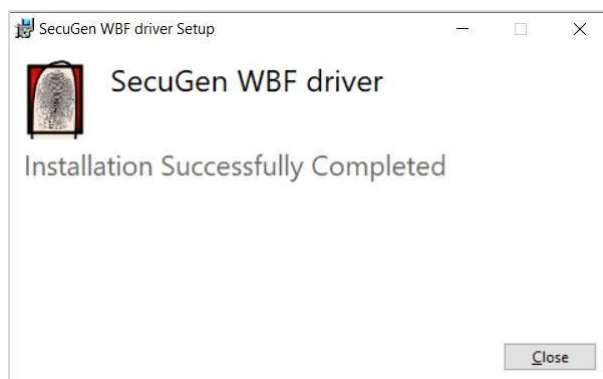
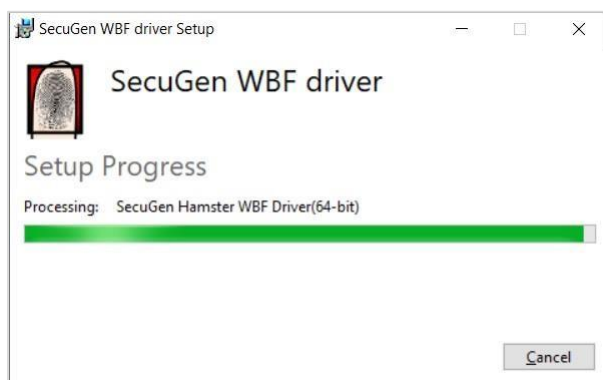
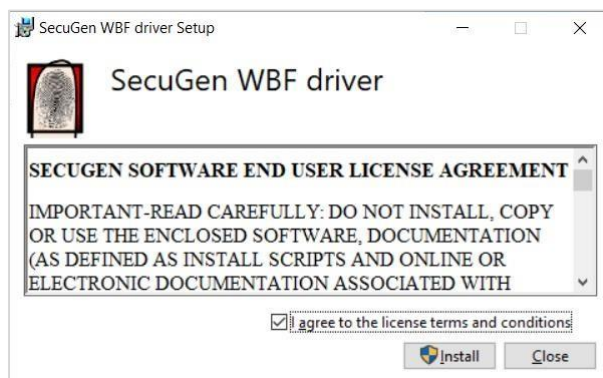
- You can uninstall, deactivate, update a module etc., by selecting the dots at the right side of the each module.

INSTALLING SECUGEN BIOMETRIC SDK

This driver installer will install SecuGen WBF* drivers onto a target Windows system. During installation, the device driver files are copied to the appropriate Microsoft Windows directories for the devices listed below. This will make the appropriate driver available to your application.

Product Name	Model
Hamster IV	HSDU04P, HFDU04
Hamster Plus	HSDU04P, HFDU04
Hamster Pro 10	HU10
Hamster Pro 20	HU20, HU20-A, HU20-AP
Hamster Pro Duo CL	XU20CL
Hamster Pro Duo SC/PIV	XU20SCA, XU20SCP
ID-USB SC	XSDU03PSC, XSDU03MSC

While both 32-bit and 64-bit drivers are provided in this installer, only the platform-specific drivers will be installed on the target system. When you launch the installer, you will see the following dialog windows during the installation process.



TL-23-18

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