

DATA.FI NIGERIA TOOL

LAMISPLUS 2.0 INSTALLATION GUIDE

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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 clientcentered 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.
- 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	ن jdk-8u331-solaris-x64.tar.gz
Windows x86 Installer	159.0 MB	الله jdk-8u331-windows-i586.exe
Windows x64 Installer	172.54 MB	نائع 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.



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

🛃 Java SE Development Kit 8 Update 271 (64-bit) - Custom Setup 🛛 🚿				
Select optional features to install from the list below. You car installation by using the Add/Remove Programs utility in the C	o change your choice of features after Control Panel			
	Feature Description			
Development Tools Source Code Public JRE	Java SE Development Kit 8 Update 271 (64-bit), including the JavaFX SDK and a private JRE. This will require 180MB on your hard drive.			
Install to:				
C:\Program Files\Java\jdk1.8.0_271\	Change			
[Next > Cancel			

5. 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.

1. Before installing PostgreSQL, you need to <u>download the installation file</u> 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 🖉	postgresqLorg @	Ú	Ú	Not supported
13.7	postgresql.org 🗗	postgresqLorg 🗗	Ú	Ú	Not supported
12.11	postgresql.org 🗗	postgresql.org ල		Ú	Not supported

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

💕 Setup		_		\times
	Setup - PostgreSQL			
	Welcome to the PostgreSQL Setup Wizard.			
67				
Carlie Doctores 601				
PosigreSQL				
	< Back N	ext >	Canc	el

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

Setup		_	
Data Directory			\rightarrow
Please select a directory under which to store your data.			
Data Directory ::\Program Files\PostgreSQL\14\data	~		
VMware Instalibuilder	< Back	Next >	Cancel

4. Select software components to install:

		_	
Select Components			
Select the components you want to install; clear the com you are ready to continue.	nponents you do not v	vant to install. Cl	ick Next when
PostgreSQL Server pgAdmin 4 Stack Builder Command Line Tools	PostgreSQL databas	se server	
VMware InstallBuilder]		
	< Back	Next >	Cancel

- 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.

Setup		_		\times
Installation Directory				
Please specify the directory where PostgreSQL will be installed	I.			
Installation Directory C:\Program Files\PostgreSQL\14	~			
VMware InstallBuilder				
	< Back	Next >	Can	cel

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

<table-of-contents> Setup</table-of-contents>				_		×
Password						
Please provide a pa	assword for the database	e superuser (pos	tgres).			
Password	1]				
Retype password]				
VMware InstallBuilder						
			< Back	Next >	Car	ncel

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

Setup	_	
Port		
Please select the port number the server should listen on.		
Port 5432		
VMware InstallBuilder 	Next >	Cancel

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



- 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 pgAcdmin
- 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
                         nrenStmtCacheSallimit 2048
```

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

STEP 4

Logging into LAMISPlus

 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

		Welcome to : Ikot Abasi General Hospital	Guest Guest
A	Dashboard	Bootstrap / Modules	
*	Administration		+ New
	••• User Management		
	••• Install Module	O NOM this Found	
	••• Roles & Privileges	() NO Module Found	
	••• Organization Unit		
	••• Application Codeset		
	••• System Information		
	>		
		Copyright © LamisPLus & Developed by Data.FI 2022	

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.

All Files Open

Cancel

modules	10/26/2022 7:54 PM	File folder	
application-debug	10/27/2022 9:01 PM	Text Document	21 KB
application-debug.log.2022-10-26.0.gz	10/26/2022 7:54 PM	GZ File	1,014 KB
application-debug.log.2022-10-26.1.gz	10/27/2022 12:00 AM	GZ File	12 KB
🄬 biometric-1.0.0-211022	10/26/2022 7:51 PM	Executable Jar File	15,372 KB
db-config.yml	10/26/2022 7:52 PM	YML File	2 KB
🔬 hiv-2.0 _10_26_2022	10/26/2022 7:51 PM	Executable Jar File	22,171 KB
hts-2.0_10_26_2022	10/26/2022 7:51 PM	Executable Jar File	11,061 KB
🔬 laboratory-26-10-2022	10/26/2022 7:51 PM	Executable Jar File	42,994 KB
🔬 lamisplus	10/26/2022 10:42 AM	Executable Jar File	166,175 KB
🔬 lamisplus-2.0.0-261022	10/26/2022 7:51 PM	Executable Jar File	166,180 KB
% launcher	10/26/2022 7:51 PM	Windows Batch File	1 KB
🔬 lims-26-10-2022	10/26/2022 7:51 PM	Executable Jar File	17,758 KB
🔬 patient-1.0.0-2022-10-26	10/26/2022 7:51 PM	Executable Jar File	33,202 KB
🛓 triage-1.0.0-2022-10-26	10/26/2022 7:51 PM	Executable Jar File	14,356 KB

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**"

	Welcome to : Ikot Abasi General Hospital	Guest Guest
Dashboard		
Administration Monu Management	New Module	
User Management	0 0	
Install Module	Upload Insta	d.
••• Roles & Privileges		
Organization Unit	Dana and dana a Ala hara an Ilah	
- Application Codeset	Drag and drop a file nere or click	
••• System Information >		
	patient-1.0.0-2022-10-26.jar	
	UPLOAD 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.

	Ŧ	Welcome to : Ikot Al	oasi General Hospital				Guest Guest
Dashboard		Bootstrap / Upload Module					
Administration Menu Management	•						◆ BACK
User Management Install Module Roles & Privileges Organization Unit Application Codesct		New Module	✓ Upload			Install	
••• System Information >	>	🛞 No dependecy Issue					
		Module Name	Description	Version	Status	Action	
		PatientModule	patient	1.0.0	Uploaded	© Install Module	
		PREVIOUS					
			Copyright	© LomisPLus & Developed by	Data Fi 2022		

8. Select the "install module" to complete the module installation. Repeat the steps to install all required modules in the order highlighted above.

	Welcome to	: Ikot Abasi Ger	eral Hospital		Guest Gu	est <u>(</u>
Consultation NDR	Bootstrap / M	odules				
Report HTS Patient Triage	HivModule	View Details	PharmacyModule		ConsultationModule	+ New
Administration Menu Management User Management Install Module Roles & Privileges Organization Unit	Description : hiv	Module Menu Update Module Jar Uninstall Deactive	Description : pharmacy		Description : consultation	
••• Application Codeset ••• System Information	Status : 🕑 Active	Version 1.0.0	Status : 🖉 Active	Version 1.0.0	Status : 🗹 Activo	Version 1.0.0

9. 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.

	WBF driver Setup	-		×
	SecuGen WBF driver			
SECUG	EN SOFTWARE END USER LICEN	SE AGR	EEMEN	T ^
IMPORT OR USE (AS DEF ELECTR	TANT-READ CAREFULLY: DO NOT THE ENCLOSED SOFTWARE, DOC FINED AS INSTALL SCRIPTS AND (CONIC DOCUMENTATION ASSOCI	INSTALL CUMENTA ONLINE C ATED WI	, COPY ATION DR TH	v
	☑ I agree to the lice	nse terms an	d conditi	ons
		• Pinstall	Clo	ose
🛃 SecuGen	WBF driver Setup	10 - 11		X
	SecuGen WBF driver			
Setup	Progress			
Processing	SecuGen Hamster WBF Driver(64-bit)			
			<u>C</u> ar	ncel
			<u>C</u> ar	ncel
BecuGen	WBF driver Setup		<u>C</u> ar	ncel
∦ SecuGen	WBF driver Setup SecuGen WBF driver	~	<u>C</u> ar	x
1 SecuGen	WBF driver Setup SecuGen WBF driver ation Successfully Comple	ted	Car	x
₩ SecuGen	WBF driver Setup SecuGen WBF driver ation Successfully Comple	ted	Car	x
BecuGen	WBF driver Setup SecuGen WBF driver ation Successfully Comple	_ ted	Car	x
₩ SecuGen	WBF driver Setup SecuGen WBF driver ation Successfully Comple	_ ted	Car	x

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