



# Installation Guide for UNISA Portal System



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## 1 Introduction

### 1.1 Purpose

The Installation document is to assist a software designer / developer when they create installation instructions for a practical project that is to be installed. And to provide guidelines on the general rules governing the contents.

This procedure is an obligation for a software designer / developer to provide installation instructions in order to reduce possible manipulation mistakes, errors, misinterpretations, loss of time to find the correct information, etc. ..., during the practical project installation phase.

## 2 Installation Manual

The **main components that should be completely and correctly described** are the following:

- † **Pre-requisites**
- † **Install procedure**
- † **Backup and Recovery of the Practical Project and Database**

### 2.1 Pre-requisites

In this section a **list of install pre-requisites are mentioned** that must be fulfilled before the install can begin.

The program installation should be present and. Ensure also you have downloaded XAMPP, NetBeans, GhostScript as well as ImageMagick. The links are provided below:

[Xampp v3.2.4](#)

[NetBeans](#)

[ImageMagick-7.1.0-7-Q16-x64-DLL.exe php\\_imagick-3.5.1-7.4-ts-vc15-x64.zip](#)

[ImageMagick-7.0.7-11-vc15-x64.zip](#)

[GhostScript version -9.26-win64](#)



On my side, I will package and prepare the application for the exam department. It shall be handed in an installer/compressed format. User and Installation Guides shall also be available along with any other required documentations.

On the exam department's side, they will require to have a printer and scanner. The printer is to print out the reports that they will generate within app and the scanner is to scan Exam papers to be used within app. They must also have a computer which shall be used to install the system on.

The exam department can then also schedule meet times where my presence may be required concerning the system. This will allow for the discussion on any changes that might be required, or any issues detected that may need to be resolved etc.

The computer chosen for server hosting should have/make the following specifications:

**Pre-requisites are of the order of:**

- ✦ Windows 7,8,8.1 or 10. 64 bit.
- ✦ Database –phpAdmin (e.g., Database, Application Software, ...) ✦ Wi-Fi/Ethernet for Internet Connection.
- ✦ Configuration-Ensure port 80 is open. This port will be used by the service 'mysql' for the phpAdmin. Open the Resource Monitor tool. Head over to the Network section and check under TCP connections. Make sure no other application is making use of the port. If the culprit is found, forcefully terminate it from the Task manager.
- ✦ 2 GB minimum RAM
- ✦ Intel Dual Core and above
- ✦ Xampp version 3.2.4

## **2.2 Pre-installation Tasks**

Please **list here any tasks that should be completed before the installation of the practical project delivery is started**, for example tests that should be carried out.

The system is designed in a way to not disrupt the pre-existing system. It will be able to operate simultaneously with the old system until the time to phase it out.

Close all applications from the system as this may cause issues during the installation.



### 2.3 Installation Procedure

Once all pre-requisite checks and controls are positively finished, the **install process** can start. **This section must be as clear and explicit as possible listing all the steps, in chronological order.**

Head to the website to download the UNISA Portal app. You will then decide to download the zip or the installer. Afterwards, extract or install the application. The software can be installed to any location on the drive, but it is recommended to leave as default.

For mobile users, download the apk available on the website. Since this is an external application, a few steps need to be taken to prepare the installation. When you click the apk file, it gives a prompt in which you must click ok to continue. It will redirect you to a page. Check 'Install from Unknown Sources'. If the phone allows it, check the only for this application. Afterwards, proceed with the rest of the installation.

Instructions for the ImageMagick installation come from the website:

["https://ourcodeworld.com/articles/read/349/how-to-install-and-enable-theimagemagickextension-in-xampp-for-windows"](https://ourcodeworld.com/articles/read/349/how-to-install-and-enable-theimagemagickextension-in-xampp-for-windows). Modifications were made to suite the version of xampp that I'm currently using.

After downloading the installation files stated in the pre-requisites, proceed with the following:

#### Xampp

Run the installer that you downloaded. Leave everything as is and click next through the process as any alterations can make the UNISA Portal system unstable.

Afterwards, configure xampp files' credential information. This will adjust the login credentials to gain access to the phpAdmin database. The config file is present in C:\xampp and is called 'passwords'. Change the details under 'User' and 'Password'.

To check if everything is in order, open xampp. Afterwards, open up phpAdmin. It should now redirect you to the page. If it is successful, it will display a welcome screen.

Open the task manager and see if the program mysqld is running. Ensure the port of the service isn't being shared/used by any other processor.

#### ImageMagick-7.1.0-7-Q16-x64-DLL.exe

During the ImageMagick installation, in the additional tasks menu, select 'Add application directory to your system path'. **php\_imagick-3.5.1-7.4-ts-vc15-x64.zip**



Within the zip, copy and paste 'php\_imagick.dll' to 'C:\xampp\php\ext'. Within the php.ini file add 'extension=php\_imagick.dll' underneath Dynamic Extensions.

### **ImageMagick-7.0.7-11-vc15-x64.zip**

Once extracted, copy all files in the bin folder but not ImageMagickObject.dll and paste into C:\xampp\apach\bin

### **GhostScript version -9.26-win64**

Install GhostScript into the file 'Program Files'. This is so ImageMagick can know where the file is specified. Restart the PC.

### **Netbeans**

#### **2.3.1 Database**

Please **list here all the steps that need to be taken to install the database for the client.**

Once the applications have been properly installed and configured following the instructions above, open the xampp control panel.

Once opened, select start for both Apache as well as MySQL. Both the name tags should now be in green to showcase it has successfully started. Please ensure there is nothing making use of Port80 as this is the port MySQL will be using or else you will have issues with this process.

Once done, click on admin. You will be greeted with a welcome screen. At the top right corner, click on phpAdmin. Once opened, use the credentials you setup during the xampp configuration process to continue. When logged in, you can import the database/create new database and call it "unisaportal".

Click the Import button at the top and upload the SQL file containing records and tables. When the operation is completed, you may close the browser.

#### **2.3.2 Practical Project**

Please **list here all the steps that need to be taken to install the practical project for the client.**

To setup the system as the host, after the installation process is completed, open the application. Within the credentials, login with 'SYSTEM\_ADMIN' and password 'system'. The system admin will be responsible for setting up the database connection and other system configurations.



In the Server field, enter 'localhost' as the system is being run locally for the moment. According to what was set in the xampp config file, your phpAdmin credentials will be used in the database configuration for the username and password. In database field, enter the database name where UNISA data is stored in the phpAdmin Database. It should be 'unisaportal'.

## 2.4 Backup and Recovery of the Practical Project and Database

Please **list here the steps that needs to be taken for the client – how the backup and recovery of the practical project and database will work.**

The Database backup will make use of the backup and recovery software I have created. It makes periodic or immediate backups according to the options chosen. Backups are stored locally as well as the cloud.

The Backup of the practical project makes use of weekly backups to an external drive as well as a cloud backup to the OneDrive cloud storage. The files get compressed using either WinRAR/built in Windows compressor and are then backed up.

## 2.5 Contact Information

Software designer / developer	
Name	Reynold
Surname	Chidziva
Contact number	0763821656
E-mail address	reychidz@gmail.com