

# APPENDIX 1

## User Manual

CAS Management System application designed in Python Tkinter with MySQL as Backend. This system is designed as a light-weight application with interactive screens and it is very simple to use. This application has been developed using only free and open-source software packages. The remaining part of this document explains the procedure to install and configure Python IDLE and MySQL Server to run the program.

Step 1: The latest version of Python can be downloaded from the link below

<https://www.python.org/downloads/>

This application has been developed using `Python 3.6.7 (64-bit)` version. For error-free operation, it is recommended to install the same version python interpreter using the link given below:

<https://www.python.org/ftp/python/3.6.7/python-3.6.7-amd64.exe>

Step 2: For database connectivity, compatible version of Python-MySQL Connector needs to be installed using pip command.

- ⇒ Goto “**Run**” window and type “**cmd**” or open the command prompt with administrator privileges.
- ⇒ Type “**pip install mysql-connector-python**”.
- ⇒ The following link can be referred <https://pynative.com/install-mysql-connector-python/> to install the connector packages

Step 3: The Latest Version of MySQL Server can be downloaded from the link below,

<https://www.apachefriends.org/download.html>

This application has been developed with MySQL Server in XAMPP Server Package. It is recommended to install “XAMPP for Windows 5.6.40” version using the link given below:

<https://sourceforge.net/projects/xampp/files/XAMPP%20Windows/5.6.40/>

After successful installation of MySQL Server, Goto “**XAMPP Control Panel**” and start the “**MySQL**” Service. The database script file needs to be imported in MySQL Server using “**phpMyAdmin**” Control Panel for the first time. Create an empty database named “**casdb**” with username “**root**” and password “” and then import the SQL Script file to create all required SQL Tables. Database username and password can be changed as per requirement.

Once all required software are installed, open the python program file in Python IDLE. Change the database connection details wherever it is applicable and run the program. Login into the CAS Management System Application using “**test**” and “**test**” as username and password.

Note: Username and password of the user can be modified in the database in “**phpMyAdmin**” Control Panel.