

## Software Requirements for ToDo Application

### Summary:

The "ToDo" application is a web-based task management system that allows users to register an account, log in, and efficiently organize their tasks. Users can create new tasks, view existing tasks, edit task details, and delete tasks as needed. The application provides a user-friendly interface where tasks can be categorized, prioritized, and assigned to specific individuals. Users can easily track the due dates and status of their tasks, helping them stay organized and productive. With features such as registration, login, task creation, viewing, editing, and deletion, the "ToDo" application offers a comprehensive solution for managing and organizing tasks effectively.

Note: ReadMe – Guide for ToDo application, help to register an account, log in, and manipulate their tasks.

### Software Requirements:

**The ToDo application can be tested using two ways as below.**

1. PythonAnywhere
  - Web Application Hosting: PythonAnywhere allows you to deploy and host your Python web applications in a secure and scalable environment. You can run popular web frameworks like Flask or Django and easily manage your application's configurations and dependencies.
  - Created account Christi003 and uploaded all files in corresponding directory  
<https://www.pythonanywhere.com/user/Christi003>
  - Configured database

Facing some issues in PythonAnywhere, due to absolute path issue, while accessing recursive html files and some more bugs.

[https://www.pythonanywhere.com/user/Christi003/webapps/#id\\_christi003\\_pythonanywhere\\_com](https://www.pythonanywhere.com/user/Christi003/webapps/#id_christi003_pythonanywhere_com)

2. Manual Procedure of MySQL, Flask, Python  
Using the manual setup, could able to launch web application to test the ToDo Application.

### Manual Procedure of MySQL, Flask, Python installation and configuration

Follow the step-by-step instructions to test the ToDo application.

1. Python
  - Install python 3.11.x from Microsoft Store
  - Verify the version using the command  
Cmd: python --version

```
C:\Users\chris>python --version
Python 3.11.4
```

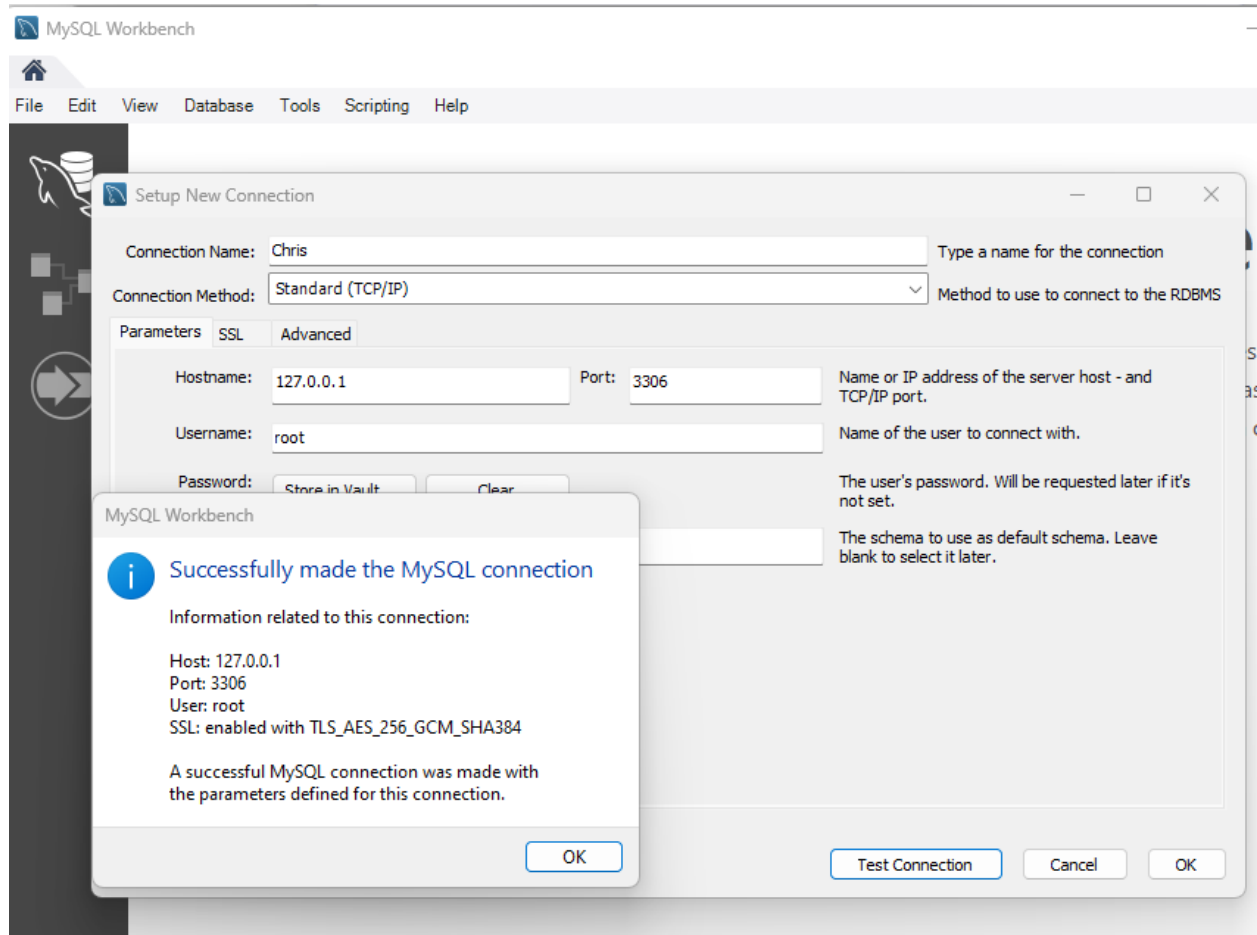
## 2. Flask

- Install the below required packages
- Pip install Flask Flask-WTF Flask-Login Flask-SQLAlchemy Werkzeug Flask-Login mysqlclient pymysql

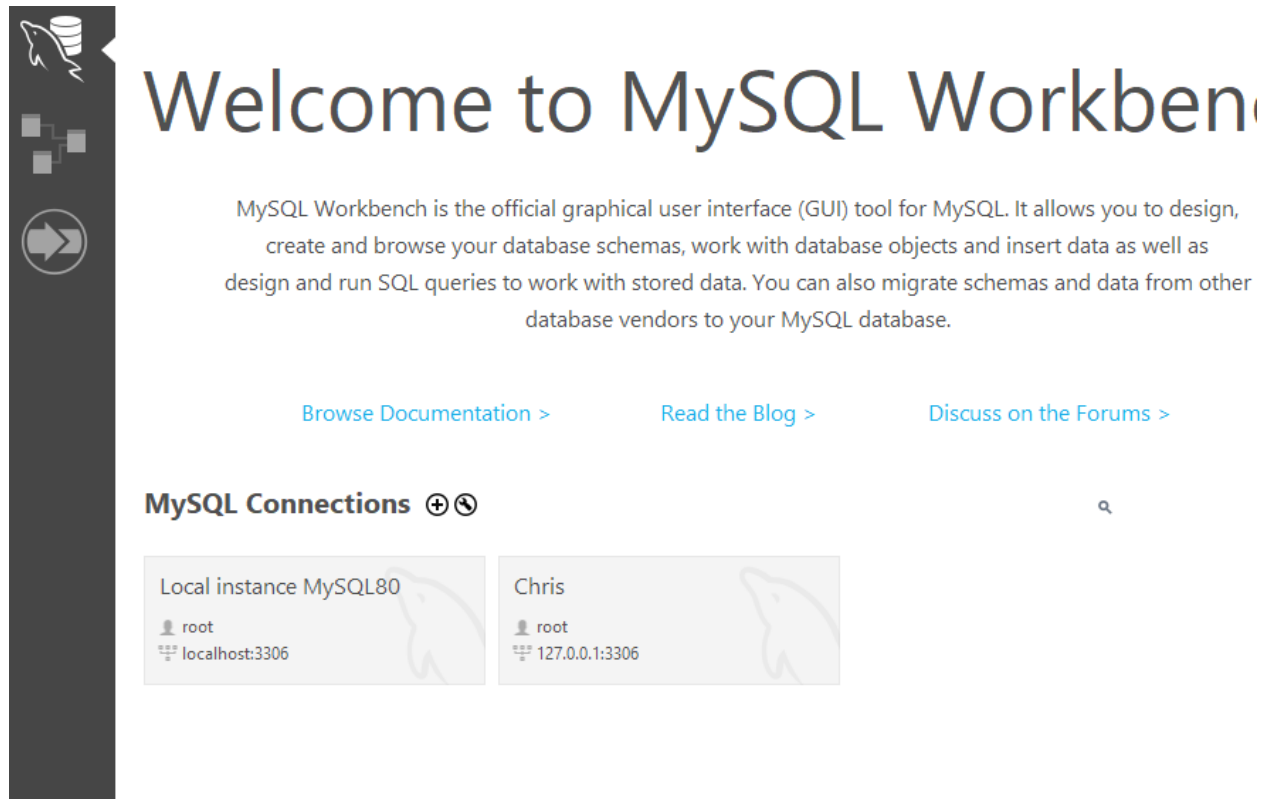
```
(venv) C:\Users\chris\OneDrive\Documents\Education\Assignment6_7>pip install Flask Flask-WTF Flask-Login Flask-SQLAlchemy Werkzeug
Collecting Flask
  Downloading Flask-2.3.2-py3-none-any.whl (96 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 96.9/96.9 kB 5.4 MB/s eta 0:00:00
Collecting Flask-WTF
  Downloading Flask_WTF-1.1.1-py3-none-any.whl (12 kB)
Collecting Flask-Login
  Downloading Flask_Login-0.6.2-py3-none-any.whl (17 kB)
Collecting Flask-SQLAlchemy
  Downloading flask_sqlalchemy-3.0.5-py3-none-any.whl (24 kB)
Collecting Werkzeug
  Downloading Werkzeug-2.3.6-py3-none-any.whl (242 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 242.5/242.5 kB 7.3 MB/s eta 0:00:00
Collecting Jinja2>=3.1.2 (from Flask)
  Downloading Jinja2-3.1.2-py3-none-any.whl (133 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 133.1/133.1 kB 7.7 MB/s eta 0:00:00
Collecting itsdangerous>=2.1.2 (from Flask)
  Downloading itsdangerous-2.1.2-py3-none-any.whl (15 kB)
Collecting click>=8.1.3 (from Flask)
  Downloading click-8.1.3-py3-none-any.whl (96 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 96.6/96.6 kB ? eta 0:00:00
Collecting blinker>=1.6.2 (from Flask)
  Downloading blinker-1.6.2-py3-none-any.whl (13 kB)
Collecting WTForms (from Flask-WTF)
  Downloading WTForms-3.0.1-py3-none-any.whl (136 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 136.5/136.5 kB 4.1 MB/s eta 0:00:00
Collecting sqlalchemy>=1.4.18 (from Flask-SQLAlchemy)
  Downloading SQLAlchemy-2.0.17-cp311-cp311-win_amd64.whl (2.0 MB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 2.0/2.0 MB 25.2 MB/s eta 0:00:00
Collecting MarkupSafe>=2.1.1 (from Werkzeug)
  Downloading MarkupSafe-2.1.3-cp311-cp311-win_amd64.whl (17 kB)
Collecting colorama (from click>=8.1.3->Flask)
  Downloading colorama-0.4.6-py2.py3-none-any.whl (25 kB)
```

## 3. MySQL

- MySQL Workbench, MYSQL Command Line Client will be installed in MYSQL package.
- Install MYSQL and launch.
- create username and password.



- “Welcome to MySQL Workbench” page will be displayed with username.



- Verify the status of mysql as below from cmd prompt

```
C:\Users\chris>mysqladmin -u root -p status
Enter password: *****
Uptime: 1017  Threads: 2  Questions: 6527  Slow queries: 0  Opens: 291  Flush tables: 3  Open tables: 199  Queries per
second avg: 6.417

C:\Users\chris>
```

- Open MYSQL Command Line Client

```
MySQL 8.0 Command Line Cli  x  +  v

Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 23
Server version: 8.0.33 MySQL Community Server - GPL

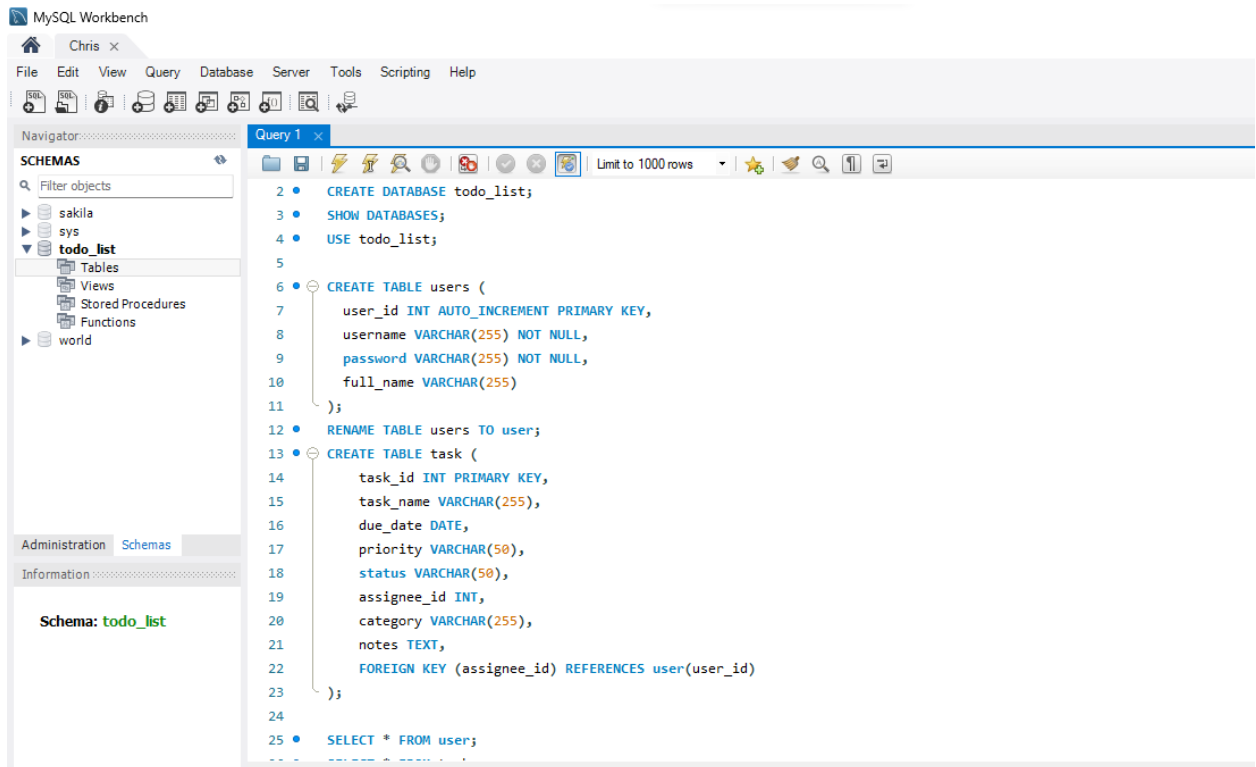
Copyright (c) 2000, 2023, Oracle and/or its affiliates.

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> |
```

#### 4. Create Database and tables in MySQL workbench



#### 5. Create a virtual environment

Cmd: `python -m venv <env_name>`

Active virtual environment

```
C:\Users\chris\OneDrive\Documents\Education\Assignment6_7>python -m venv chrisenv
C:\Users\chris\OneDrive\Documents\Education\Assignment6_7>chrisenv\Scripts\activate
(chrisenv) C:\Users\chris\OneDrive\Documents\Education\Assignment6_7>
```

#### 6. Execute the python file

- Python `ToDo_app.py`

```
(chrisenv) C:\Users\chris\OneDrive\Documents\Education\Assignment6_7>python ToDo_app.py
* Serving Flask app 'ToDo_app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 713-746-889
```

7. Open the browser and provide the ip:portnumber as below  
127.0.0.1:5000

Web page is launched successfully and able to register, login, create, view, edit and delete task.

