Before running this program, run command in command prompt (in case using Windows):

pip install -r requirements.txt

or

pip3 install -r requirements.txt

I have added all the requirements to run this program in requirements.txt file.

Below are the files in my Project:

1. CreateDatabaseTables.py
2. DBConnection.py
3. DBOperations.py
4. Index.py
5. TableClass.py
6. UnitTest.py
7. UserAndDBDetails.py

CreateDatabaseTables.py:

This file contains code to create all the required database tables. This will be called when program runs and a new database, tables will be created in case if they do not exist. Once created, they will not be recreated unless deleted by user.

DBConnection.py:

This file contains code to connect to database. I have created this file for code re-usability. Every time I need DB connection, I call the class in this file and I am ready to perform operations on database.

DBOperations.py:

This file contains all the functions we are required to perform in this project on the database. This includes fetching, adding and updating data functions.

Index.py:

This is the core file that is binding all the other python files and leads the execution of the program. This file contains the program flow. Run this file to execute the program.

TableClass.py:

This file contains all the classes used in ORM to map to database tables. This will be used while performing operations in DBOperations.py file.

UnitTest.py:

This file consists of unit tests written to check the correctness of the project functions. This can also be considered for code coverage. Maximum code coverage is necessary for flowless and bug free code. I have written 16 test cases in this file and all are successfully passing.

UserAndDBDetails.py:

This file contains the user details like username, password and database related details like host name, database name, etc. Please change these details as per values in your system.