**Department of Computer Science and Electrical Engineering CMSC 447: Software Engineering - I**

**Homework 2**

**Purpose of the assignment:**

This assignment will be done **individually**. In this assignment you will get an opportunity to obtain hands-on experience with the Flask Framework and sqlite3. You need to learn about the following. Hopefully, you already know about some of them.

Flask, Python, React, Java Script, Html, CSS, NodeJS, sqlite3, etc

Every student will submit the assignment in Blackboard as directed. In your submission you should also include a brief direction on how to run the application.

**Description of the Assignment:**

You will use a CURD (Create, Update, Read, Delete) application using Flask, Python, JavaScript, Html, CSS.

Your application should be able to modify data in the database from the user interface. You will also have to make it appear relatively modern with similar requirements that you had for homework 1. You will need to provide the necessary buttons and text boxes to do the operations as mentioned. There are only three columns.

Create User

Search User

Delete User

Update function

You **MUST** use Python Flask as your framework and sqlite3 as your database. This database will just be a file and you must include it in your submission.

**Test Data: Use this data to start with**

| **Name** | **Id** | **Points** |
| --- | --- | --- |
| Steve Smith | 211 | 80 |
| Jian Wong | 122 | 92 |
| Chris Peterson | 213 | 91 |
| Sai Patel | 524 | 94 |
| Andrew Whitehead | 425 | 99 |
| Lynn Roberts | 626 | 90 |
| Robert Sanders | 287 | 75 |

Hints:

• Database: Flask supports all the databases. • Connect backend/api calls to the database: fetch, update, insert operations. • Server hosting with Flask. Flask integration.

**Setting up Flask environment:**

1. Install Python 3.6+ and PIP.

2. Install virtualenv (https://pypi.org/project/virtualenv/)

3. Create Project directory.

4. Create virtual environment.

5. Install required packages (flask, databases).

6. Do the rest of flask setup.

Sqlite3 - <https://www.sqlite.org/index.html>

**MUST BE ALL INSIDE YOUR GITHUB.**

**\*\* Make sure the repository is public \*\***

Submit Github URL via blackboard and a ZIP file.

Directory structure must be as follows:

cmsc447-hw2-sp2024-<lastname>-<firstname>.zip

* - cmsc447-hw2-sp2024-<lastname>-<firstname>
  + - From here you can organize your homework how you like
    - Make sure to not forget your database file
    - Readme.md (\* This file will explain how to run it \*)
    - database.db