Web Forms with Flask, Docker, PyCharm, and MySQL

## Overview

In this project you will need to create HTML forms to create new records, update records, and a small form that has no fields other than a submit button to delete records. You will need to get my project to run, so you can see how everything works and then create your own project with new data but having the exact same functionality.

Part 1 – Get my code to work

This project is setup to have Docker Compose setup a python flask app and a mysql server that will load data from the db/init.sql file the first time the database starts (note you will need to do a docker down by right clicking on the compose file in pycharm docker service to reset the database if you make any changes to the sql statements that load initially, it doesn't run the init.sql each time you run your project, just each time docker-compose is run from scratch). Then you need to create a flask framework to serve flask jinja template files and send http POST requests to update, add new records, and delete.

Part 2 – Build your own application with one of the following CSV files as the source:

https://people.sc.fsu.edu/~jburkardt/data/csv/csv.html

Use this to convert 100 records of the CSV file to an SQL insert: https://sqlizer.io/#/

## https://codebeautify.org/csv-to-sql-converter

this one works very well and doesn't seem to have a limit, but I haven't tried it for the project.

You can view and edit your CSV data in excel before you convert it, so you limit it to 100 records and can rename any fields, just save it as a CSV file.

## Videos and Reading:

Assignment video: <a href="https://youtu.be/5WBYxNZz8Zw">https://realpython.com/primer-on-jinja-templating/</a>

https://www.w3schools.com/python/python mysql getstarted.asp <-We use flask mysql that works the way it does in my code, but generally all the stuff about mysql works from here too, its just you have to use the flask way of accessing the database connection. Take a look at line 53 for how I use the commit function.

The completed code for this project can be found here:

https://github.com/kaw393939/PythonDockerFlaskPycharm/tree/lesson3

How to Submit your Project

Create a new word document that includes the following:

- 1. A link to your GitHub repository for a NEW project
- 2. Submit a word document with screen shots of the following:
  - a. The project showing that you can view YOUR data tables in pycharm
  - b. **YOUR** project running correctly in the browser displaying your homepage with your data
  - c. YOUR project running correctly in the browser displaying your data record as a view of one record
  - d. **YOUR** project running correctly in the browser displaying a new record added to your home page

- e. **YOUR** project running correctly in the browser displaying an updated record added to your home page
- f. **YOUR** project running correctly in the browser displaying a deleted record added to your home page