

Jack Bitzel
CMSC 447
Individual Assignment

To run the project you must have Flask and flask_sqlalchemy installed on your machine. If they are not already installed, run the following commands from a shell:

-> pip install Flask
-> pip install flask_sqlalchemy

Once you have those modules installed you should be able to navigate to the folder with my project files and run the python file “app.py” with

-> python3 app.py

This will give you an http address which you can copy and paste into a browser.

```
* Debug mode: on
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Restarting with fsevents reloader
* Debugger is active!
```

This will bring up the following web page

Student ID Student Name Student Grade

Student ID	Student Name	Student Grade		
122	Jian Wong	92	<input type="button" value="Delete"/>	<input type="button" value="Update"/>
211	Steve Smith	80	<input type="button" value="Delete"/>	<input type="button" value="Update"/>
213	Chris Peterson	91	<input type="button" value="Delete"/>	<input type="button" value="Update"/>
287	Robert Sanders	75	<input type="button" value="Delete"/>	<input type="button" value="Update"/>
425	Andrew Whitehead	99	<input type="button" value="Delete"/>	<input type="button" value="Update"/>
524	Sai Patel	94	<input type="button" value="Delete"/>	<input type="button" value="Update"/>
626	Lynn Roberts	90	<input type="button" value="Delete"/>	<input type="button" value="Update"/>

From here you can enter information for a new entry. In this example I'm entering student ID 900, student name "Test Student", and student grade 85.

Student ID Student Name Student Grade

Student ID	Student Name	Student Grade		
122	Jian Wong	92	Delete	Update
211	Steve Smith	80	Delete	Update
213	Chris Peterson	91	Delete	Update
287	Robert Sanders	75	Delete	Update
425	Andrew Whitehead	99	Delete	Update
524	Sai Patel	94	Delete	Update
626	Lynn Roberts	90	Delete	Update

Here is the updated data after clicking add entry.

Student ID Student Name Student Grade

Student ID	Student Name	Student Grade		
122	Jian Wong	92	Delete	Update
211	Steve Smith	80	Delete	Update
213	Chris Peterson	91	Delete	Update
287	Robert Sanders	75	Delete	Update
425	Andrew Whitehead	99	Delete	Update
524	Sai Patel	94	Delete	Update
626	Lynn Roberts	90	Delete	Update
900	Test Student	85	Delete	Update

You can also update existing rows in the table. Here is the resulting page after pressing the "update" button for the newly created student.

Student Name Student Grade

If I want to change the student name and grade, I can do that.

Student Name	<input type="text" value="Test Student 2"/>	Student Grade	<input type="text" value="91"/>	<input type="button" value="Update"/>
--------------	---	---------------	---------------------------------	---------------------------------------

Clicking the “update” button will update the data and return you to the previous page.

Student ID	<input type="text" value="enter ID"/>	Student Name	<input type="text" value="enter name"/>	Student Grade	<input type="text" value="enter grade"/>	<input type="button" value="Add Entry"/>
------------	---------------------------------------	--------------	---	---------------	--	--

Student ID	Student Name	Student Grade		
122	Jian Wong	92	Delete	Update
211	Steve Smith	80	Delete	Update
213	Chris Peterson	91	Delete	Update
287	Robert Sanders	75	Delete	Update
425	Andrew Whitehead	99	Delete	Update
524	Sai Patel	94	Delete	Update
626	Lynn Roberts	90	Delete	Update
900	Test Student 2	91	Delete	Update

Pressing “delete” will remove the row from the data table.

Student ID	<input type="text" value="enter ID"/>	Student Name	<input type="text" value="enter name"/>	Student Grade	<input type="text" value="enter grade"/>	<input type="button" value="Add Entry"/>
------------	---------------------------------------	--------------	---	---------------	--	--

Student ID	Student Name	Student Grade		
122	Jian Wong	92	Delete	Update
211	Steve Smith	80	Delete	Update
213	Chris Peterson	91	Delete	Update
287	Robert Sanders	75	Delete	Update
425	Andrew Whitehead	99	Delete	Update
524	Sai Patel	94	Delete	Update
626	Lynn Roberts	90	Delete	Update

WARNING! I was unable to implement error handling for duplicate student ID. If you try to use an existing student ID for a new entry you will get errors and will have to CTRL-C and rerun the program from your shell.