
CMPS431W Spring 2023 Web Programming Exercise

Assigned: Friday January 27, 2023

Due: Monday February 20, 2023 (by midnight 11:59pm, submit a **zip file** online via Canvas. **The name of the file should be in the form of** `<FirstName>_<LastName>_WPE.zip`. The zip file should contain your main python code, the three html files and a ReadMe file.

Maximum: 100 points + 20 Bonus points.

Note: This exercise is to be done by an individual student, no team work is allowed.

Please write down any assumption or clarification you make if you feel the problem is ambiguous!

Creating three webpages in HTML (front-end) using the starter code with Flask.

Instructions:

1. You are expected to code in HTML and Python, and use Flask in Python.
2. A working starter code is provided on CANVAS. You may use PyCharm Professional to open the starter code and test run it.
3. You need to extend/modify the starter code to perform the specified tasks. Be sure to make the user interface of the two webpages for entering and deleting patient records different from the provided html pages (e.g., design different layout or use different colors for the buttons, and so on).
4. Documentation for code is mandatory; otherwise, marks will be penalized.
5. Some pointers to HTML tutorials can be referred as below:
 - a. https://www.w3schools.com/tags/att_input_type_submit.asp
 - b. <https://www.w3schools.com/tags/>
 - c. https://www.w3schools.com/tags/tag_select.asp
 - d. https://www.w3schools.com/tags/att_form_method.asp
6. In addition to Chapter 3 (in the textbook), some pointers to SQL tutorial on INSERT (already in the starter code) and DELETE are below:
 - a. https://www.w3schools.com/sql/sql_ref_insert_into.asp
 - b. https://www.w3schools.com/sql/sql_ref_delete.asp
7. Tutorial for Modals (Confirmation Dialog) in Bootstrap (Bonus):
 - a. <https://getbootstrap.com/docs/4.0/components/modal/>

Scenario: You are assigned to design the website of the Nittany University Hospital, where a hospital staff may enter and delete patient names in its database. You will create 3 webpages with HTML and use Flask to implement the website functionality. The starter code for two web pages has been provided and made available on Canvas. Note that the starter code has a SQLite database file. MySQL and SQLite have different naming conventions for the data type and keywords like Autoincrement. Thus, MySQL queries will not work with the starter code. Refer to the SQLite Syntax at SQLite website. (see <https://sqlite.org/lang.html>)

The following are three tasks (i.e., design of three web pages) to complete the assignment:

Task 1. [40 points] Main webpage:

- Create a page from which you can navigate to the other two webpages to add and delete patient names with 2 buttons “Add Patient Name” and “Delete Patient Name” .
- Make sure to create a clear heading describing the purpose of this portal on this page.
- Bonus Points [10 points]:** Instead of the buttons, create drop down menu with “Add Patient Name” and “Delete Patient Name” as options and a “Go!” button to go to the corresponding page from the home page. See figure below for illustration.

Hospital Patient Portal
This portal allows users to add and delete patient names from the hospital's database.

Action

Go!

Hospital Patient Portal
This portal allows users to add and delete patient names from the hospital's database.

Action

Add Patient Name

Delete Patient Name

This heading is not required, but you are welcome to add elements to your webpages to make them look nicer

Task 2 [30 points] Webpage for entering a patient's name:

- Create a form on this page that takes as input the “First Name” and “Last Name” of the patient.
- The form is to be submitted with the “Add” Button to insert a record in the database; otherwise, the “Go Back” button is used to redirect to the Main Webpage.
- For a newly added patient, a PID is automatically generated (in any way you prefer). Note that as you will need to store the PID, the table (schema) created in the starter code needs to be changed as appropriate!

- d. Display the information of all the patients in the database, once the form is submitted, on the same page as an HTML table. The suggested format is as follows:
 - PID First Name Last Name
 - PID will be a unique number for every entry.
- e. You may change the wording, e.g., History, in the examples below as appropriate.

Enter Patient Name

First Name

Last Name

[Add](#) [Go Back](#)

History

PID	First Name	Last Name
-----	------------	-----------

Task 3 [30 points]. Webpage to delete a patient's name:

- a. Create a form on this page that takes as input the “First Name” and “Last Name” of the patient.
- b. Display the information of all patients in the database, before deletion, on the same web page, in the same format of the HTML table as described earlier.
- c. The form is to be submitted with the “Delete” button to delete the specified record in the database; otherwise, the “Go Back” button is used to redirect to the Main Webpage.
- d. After deletion, display the information of all patients in the updated database on the same web page, in the same format of the HTML table as described before.

Delete Patient Name

First Name

Last Name

[Delete](#) [Go Back](#)

History

PID	First Name	Last Name
2	Enter	Name
4	A	B
5	ty	z

Task 4 [Bonus Points 10]: Use of Bootstrap Modals.

When you click Add in the second webpage (or Delete in the third webpage), please display a prompt to ask the user to confirm that she/he wants to add (or delete) a patient. Give two options so the user can decide whether to proceed with the action or close the prompt. You have to use Bootstrap Modals.