Database Management System

As part of this assignment for Week 1 and Week 2. I developed a Database management System where the user can get access to the database with just one click.
A user can perform the following actions using this project.

1. Retrieve information about a candidate.
2. Delete information about a candidate.
3. Update the information about an existing candidate or add a new candidate.

The following project has 3 different types of files:

1. Python File - App.py
2. CSV File - StudentDatabase.csv
3. HTML Files - Home, Delete, LoadData, Read, Update.

We must first make sure that all the files are in a single folder. There must be another sub folder in the main folder named "Static". In this static folder we must have all the HTML files. The other two files remain in the main folder.

Given below is the mapping of the files:
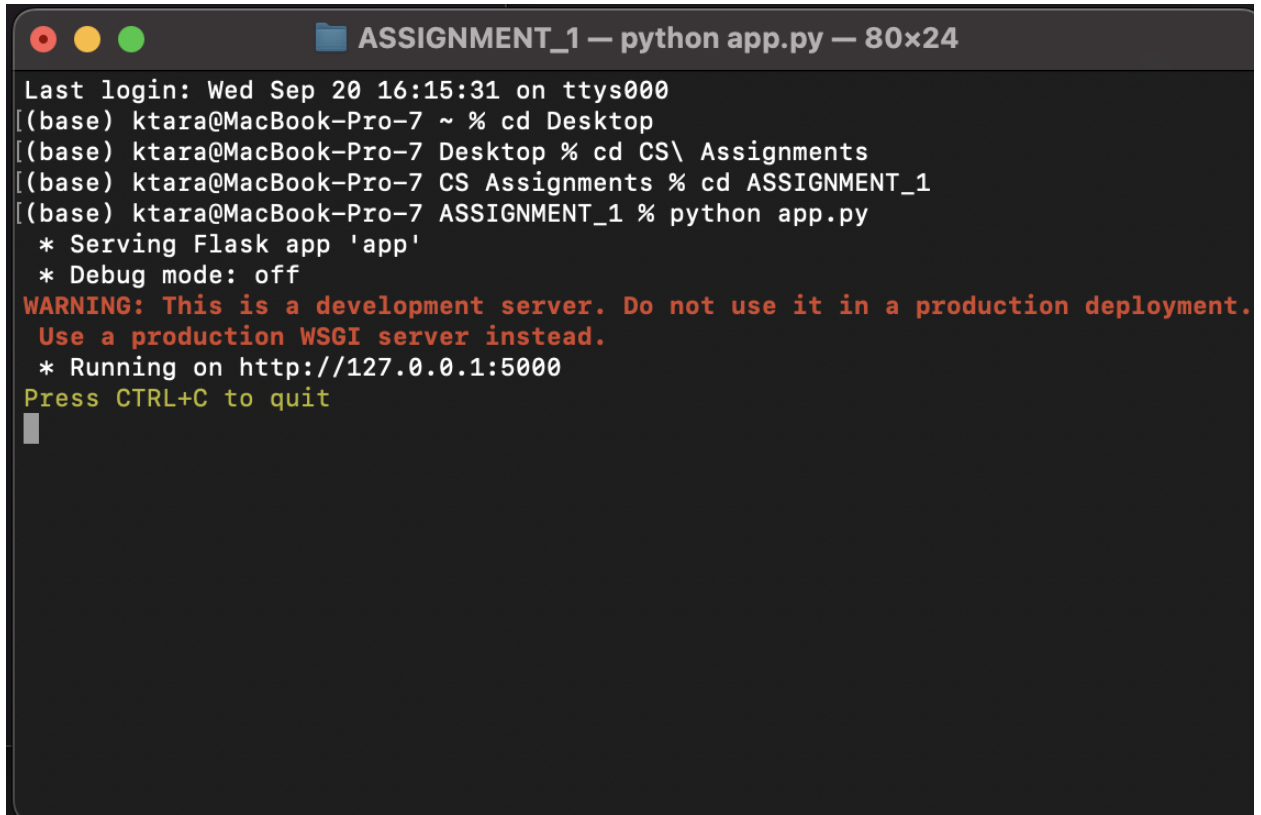Python File : Desktop —-> og2055 —-> app.py
CSV File : Desktop —-> og2055 —-> StudentDatabase.csv
HTML Files : Desktop —-> og2055 —->static —->Home.html, Delete.html, LoadData.html, Read.html, Update.html.

To run the website on a local host we must execute the Python File "app.py". Open command prompt and move to the location when the main file exists. In the above case I had my main file "og2055" on the Desktop.

Once you go to the location of the python file, use the command "python app.py" to run the file. You will be able to see a link to the local host such as the one given in "fig 1".
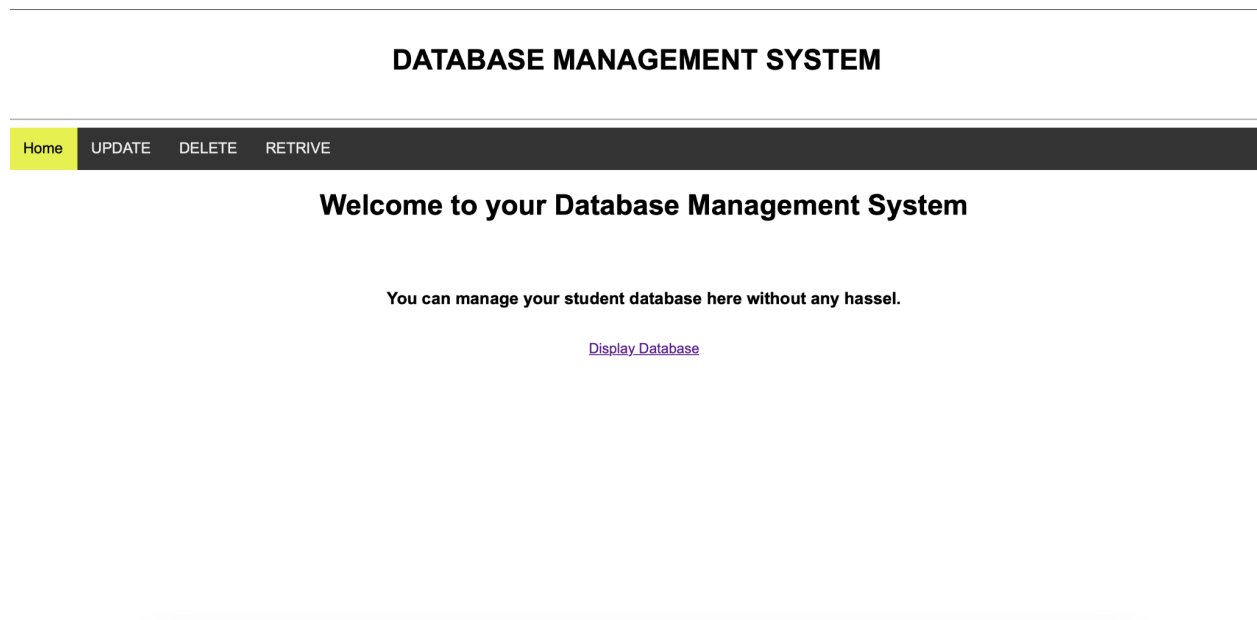
Copy the given localhost address and paste it into any web browser. You can now see and access the website.

Figure 1

The below is the home page for the Database Management system. You can see the "Display Database" option through which you can access the database.

DATABASE MANAGEMENT SYSTEM

Home	UPDATE	DELETE	RETRIVE

Welcome to your Database Management System

You can manage your student database here without any hassel.

[Display Database](#)

In the below screenshot, you can see the database once we click on the "**Display Database**" option as shown below

DATABASE MANAGEMENT SYSTEM

Home	UPDATE	DELETE	RETRIVE

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS

Terminal
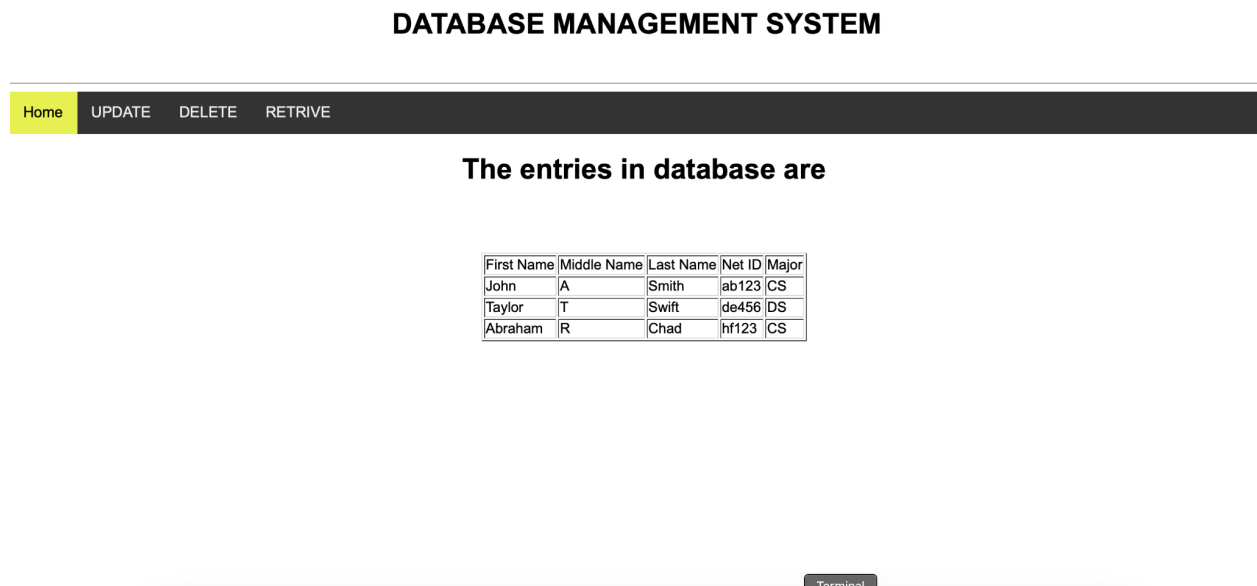
We can navigate to the update update tab, we can see the below page.

Home	UPDATE	DELETE	RETRIVE	

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS

Enter Your Details to Update your Database!

First Name:
John

Middle Name:
John

Last Name:
Doe

Net ID:
Doe

Major:
Doe

Submit Clear

In the below screenshot, we can see the details that need to be updated. And the second screenshot shows us the updated table.

We can enter the details of a completely new student to enter into the database. Or update the details of a student with the same netID.

Home	UPDATE	DELETE	RETRIVE	

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS

Enter Your Details to Update your Database!

First Name:
John

Middle Name:
John

Last Name:
Doe

Net ID:
Doe

Major:
Doe

Submit Clear

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS
Mellisa	D	Cater	ty345	Social Science

Enter Your Details to Update your Database!

First Name:
John

Middle Name:
John

Last Name:
Doe

Net ID:
Doe

Major:
Doe

Submit   Clear

Now let's take a look at the Delete tab.

In the delete tab when a NetID is entered, It first displays a warning prompt asking "Are you sure you want to delete?". Once you click on "OK", if it is a valid NetID then it goes ahead and deletes that data related to that NetID. But if it is an Invalid NetID then it shows a message that the NetID is Invalid.

DATABASE MANAGEMENT SYSTEM

| Home | UPDATE | DELETE | RETRIVE |

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS
Mellisa	Y	Carter	ty345	Sports

Enter NetID to Delete Record of the Student!

Net ID:

Doe

Submit   Clear

DATABASE MANAGEMENT SYSTEM

| Home | UPDATE | DELETE | RETRIVE |

The entries in database are

Are you sure to delete the record

Cancel   OK

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS
Mellisa	Y	Carter	ty345	Sports

Enter NetID to Delete Record of the Student!

Net ID:

Doe

Submit   Clear

Here below, the entered NetID does not exist so it shows " Record doesn't exist"

DATABASE MANAGEMENT SYSTEM

Record doens't exist

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS
Mellisa	Y	Carter	ty345	Sports

Enter NetID to Delete Record of the Student!

Net ID:

Doe

Submit   Clear

But if it does exist, then it deletes the record.

DATABASE MANAGEMENT SYSTEM

Record doens't exist

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS
Mellisa	Y	Carter	ty345	Sports

Enter NetID to Delete Record of the Student!

Net ID:

ty345

Submit   Clear

DATABASE MANAGEMENT SYSTEM

The entries in database are

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS
Taylor	T	Swift	de456	DS
Abraham	R	Chad	hf123	CS

Enter NetID to Delete Record of the Student!

Net ID:

Doe

Submit   Clear

And finally, the Retrieve tab. When a valid NetID is entered, it displays the database related to that particular NetID.

The below scenario is when the given NetID is wrong.

Enter NetId Here to Retrive student Data!

Net ID:

Doe

Submit   Clear

Student Not Found

Enter NetId Here to Retrive student Data!

Net ID:

Doe

Submit   Clear

Below Senario is when the NetID is correct.

Home   UPDATE   DELETE   RETRIVE

First Name	Middle Name	Last Name	Net ID	Major
John	A	Smith	ab123	CS

Enter NetId Here to Retrive student Data!

Net ID:

ab123

Submit   Clear

THE END

This project is a simple prototype of an actual Database Management System.

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NetID : **og2055**