About the project

Here we set up a web server and create a simple website using Flask, Python, and HTML/CSS. Flask is a small and lightweight Python web framework that provides useful tools and features that make creating web applications in Python easier. It gives developers flexibility and is a more accessible framework for new developers since we can build a web application quickly using only a single Python file. Flask is also extensible and doesn't force a particular directory structure or require complicated boilerplate code before getting started.

Prerequisites

Before start following this guide, we will need:

- A local Python 3 programming environment, follow the tutorial for your distribution in How To Install and Set Up a Local Programming Environment for Python 3 series for your local machine.
- You also need to install the Flask package. (This will be demonstrated in the latter part of this report accordingly.)

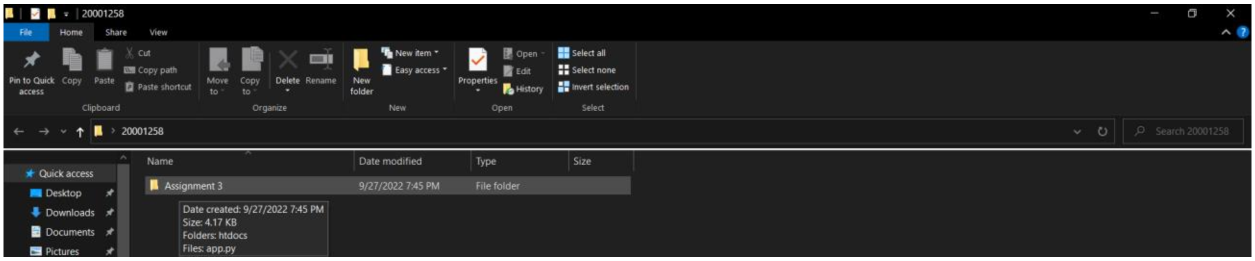
Steps

Step 1- Download 20001258.zip file to the local machine.

Step 2- Extract zipped Files.

When you extract files from the zipped folder, a new folder with the same name is created which contains the files. The compressed (zipped) version also remains.

Step 3- Open the folder named 20001258 and there after, open "Assignment 3" file folder.



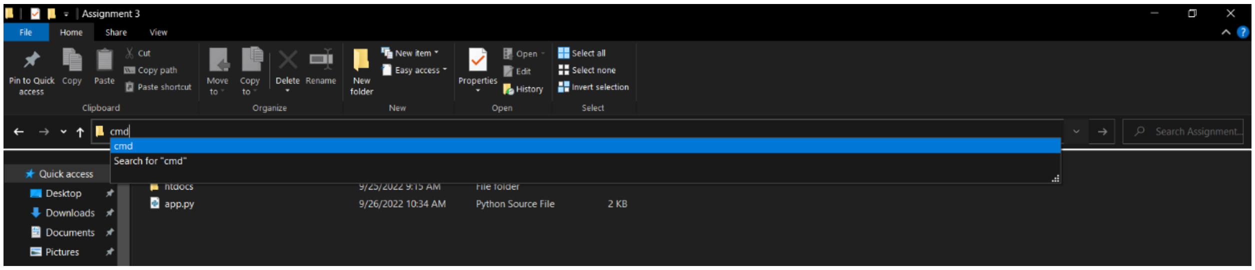
Name	Date modified	Type	Size
Assignment 3	9/27/2022 7:45 PM	File folder	

Date created: 9/27/2022 7:45 PM
Size: 4.17 KB
Folders: htdocs
Files: app.py

Step 4- Open Command Prompt Window in "Assignment 3" Folder.

1. Click on the location bar of Windows Explorer.
2. Then type **cmd** and press Enter key**.**

3. The command prompt will be opened in the folder.



```
cmd
cmd
Search for "cmd"
htdocs      9/25/2022 9:15 AM     File folder
app.py      9/26/2022 10:34 AM    Python Source File    2 KB
```

Step 5- Installing Flask

In this step, you’ll activate your Python environment and install Flask using the pip package installer.

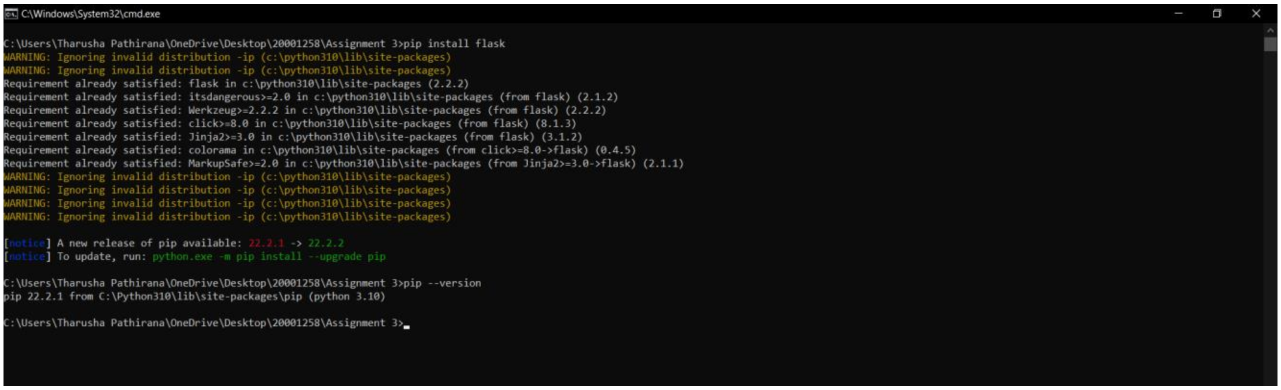
To install Flask, run the following command:

```
        pip install flask
```

Once the installation is complete, run the following command to confirm the installation:

```
pip --version
```

The output will be a version number similar to the following:



```
C:\Windows\System32\cmd.exe

C:\Users\Tharusha Pathirana\OneDrive\Desktop\20001258\Assignment 3>pip install flask
WARNING: Ignoring invalid distribution -ip (c:\python310\lib\site-packages)
WARNING: Ignoring invalid distribution -ip (c:\python310\lib\site-packages)
Requirement already satisfied: flask in c:\python310\lib\site-packages (2.2.2)
Requirement already satisfied: itsdangerous>=2.0 in c:\python310\lib\site-packages (from flask) (2.1.2)
Requirement already satisfied: Werkzeug>=2.2.2 in c:\python310\lib\site-packages (from flask) (2.2.2)
Requirement already satisfied: click>=8.0 in c:\python310\lib\site-packages (from flask) (8.1.3)
Requirement already satisfied: Jinja2>=3.0 in c:\python310\lib\site-packages (from flask) (3.1.2)
Requirement already satisfied: colorama in c:\python310\lib\site-packages (from click>=8.0->flask) (0.4.5)
Requirement already satisfied: MarkupSafe>=2.0 in c:\python310\lib\site-packages (from Jinja2>=3.0->flask) (2.1.1)
WARNING: Ignoring invalid distribution -ip (c:\python310\lib\site-packages)
WARNING: Ignoring invalid distribution -ip (c:\python310\lib\site-packages)
WARNING: Ignoring invalid distribution -ip (c:\python310\lib\site-packages)
WARNING: Ignoring invalid distribution -ip (c:\python310\lib\site-packages)

[notice] A new release of pip available: 22.2.1 -> 22.2.2
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\Tharusha Pathirana\OneDrive\Desktop\20001258\Assignment 3>pip --version
pip 22.2.1 from C:\Python310\lib\site-packages\pip (python 3.10)

C:\Users\Tharusha Pathirana\OneDrive\Desktop\20001258\Assignment 3>
```

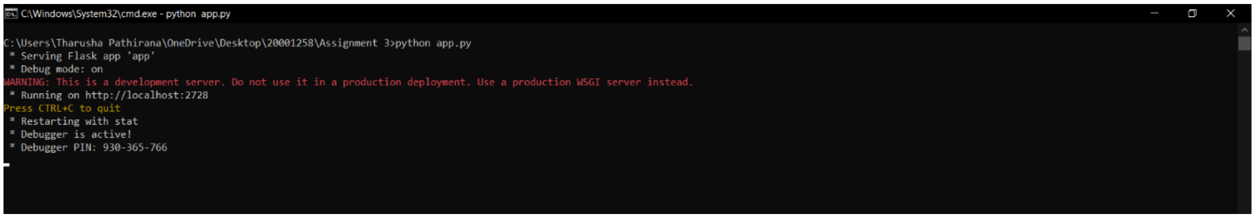
Now you are ready to run the application.

Step 6- Run the web application

Run the application using the “python app.py” command:

```
python app.py
```

Once the application is running the output will be something like this:



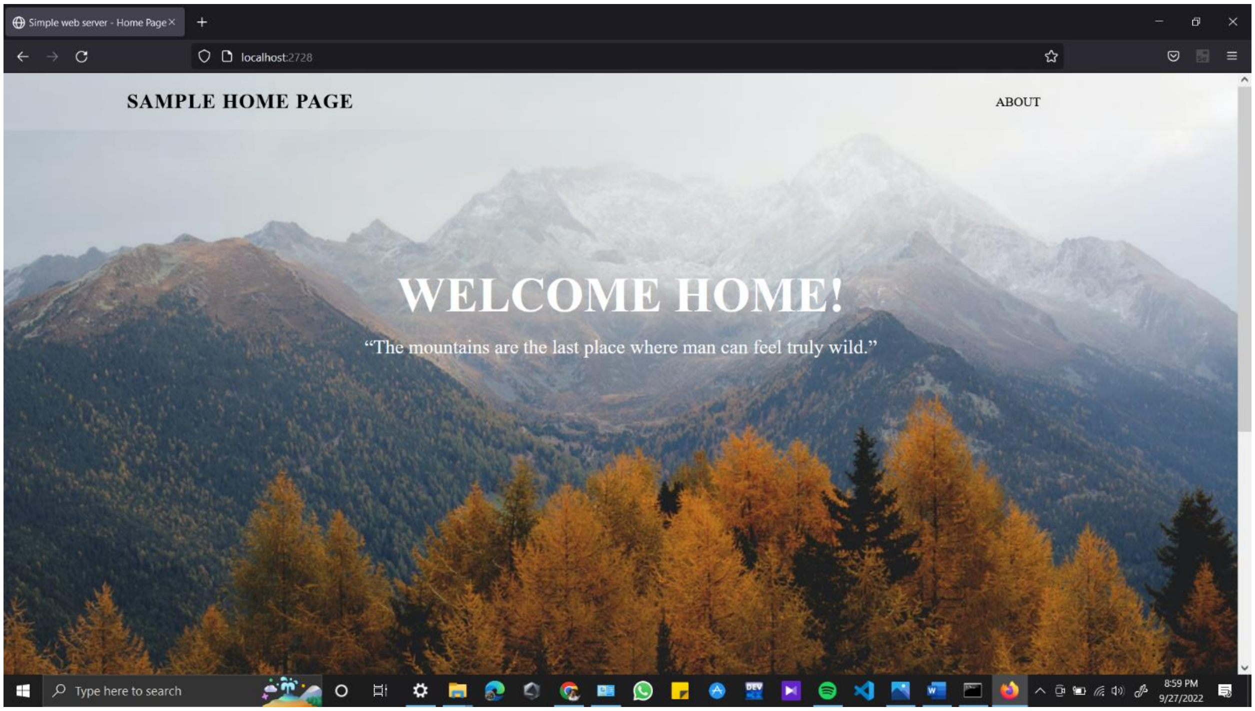
```
C:\Users\Tharusha Pathirana\OneDrive\Desktop\20001258\Assignment 3>python app.py
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://localhost:2728
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 930-365-766
```

The preceding output has several pieces of information, such as:

- The name of the application you’re running.
- Debug mode: on signifies that the Flask debugger is running. This is useful when developing because it gives us detailed error messages when things go wrong, which makes troubleshooting easier.
- The application is running locally on the URL http://localhost:2728, 127.0.0.1 is the IP that represents your machine’s localhost and :2728 is the port number.
- **Warning** Flask uses a simple web server to serve our application in a development environment, which also means that the Flask debugger is running to make catching errors easier. This development server should not be used in a production deployment. See the Deployment Options page on the Flask documentation for more information.

Step 7- Final step

Open a browser and type in the URL **http://localhost:2728/**, you will receive below output as the response, this confirms that application is successfully running.



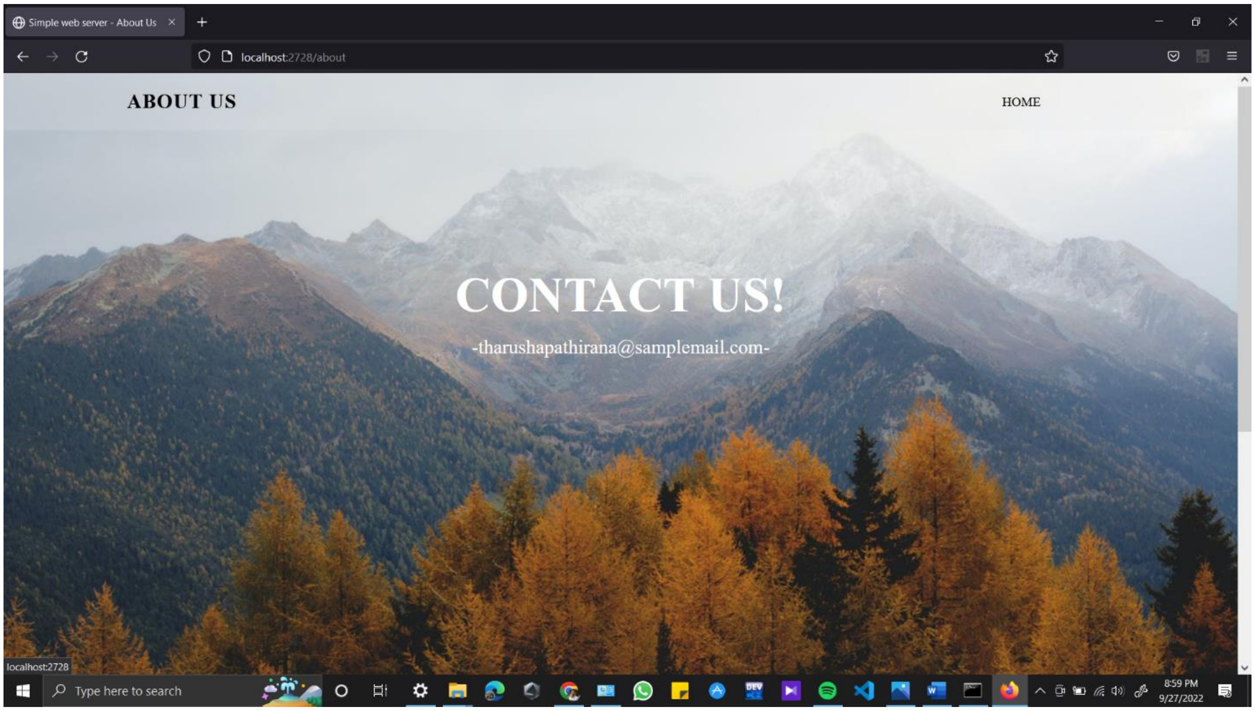
SAMPLE HOME PAGE

ABOUT

WELCOME HOME!

“The mountains are the last place where man can feel truly wild.”

Home Page



ABOUT US

HOME

CONTACT US!

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About Us page

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