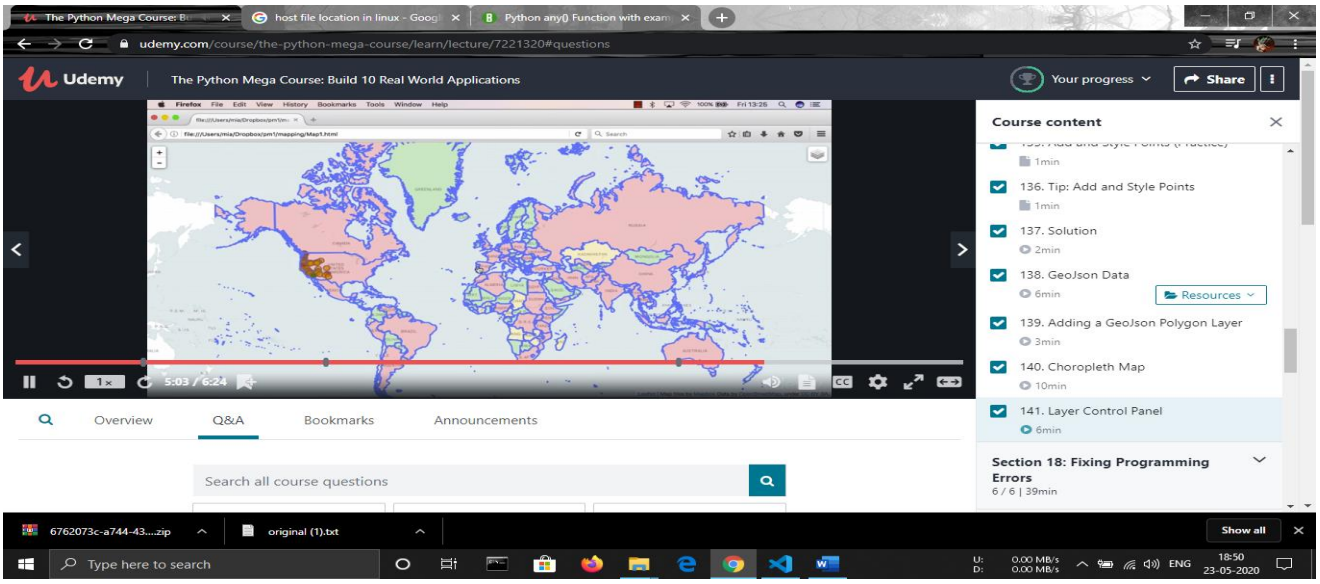
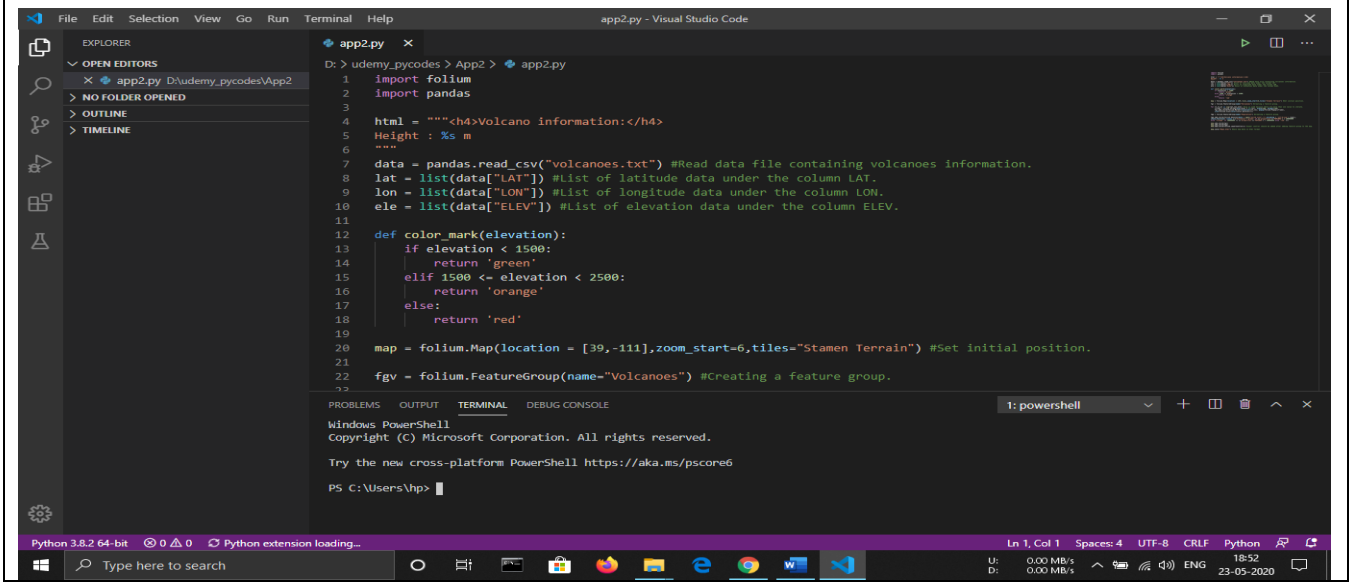
DAILY ASSESSMENT REPORT

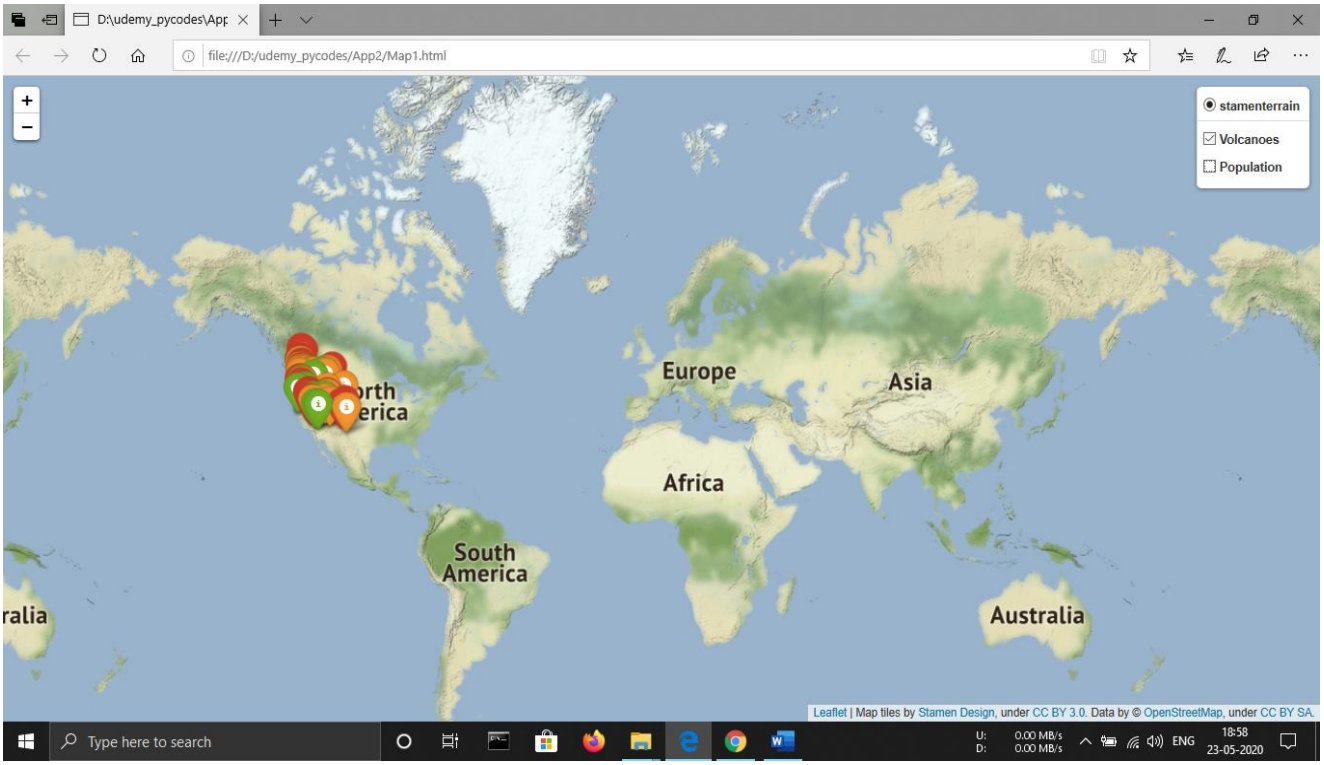
Date:	23/05/2020	Name:	Abhishek M Shastry K
Course:	The Python Mega Course: Build 10 Real World Applications	USN:	4AL17EC002
Topic:	1] Application 2: Create Webmaps with Python and Folium 2] Fixing Programming Errors	Semester & Section:	6th 'A'
Github Repository:	AbhishekShastry-Courses		

FORENOON SESSION DETAILS

Image of session



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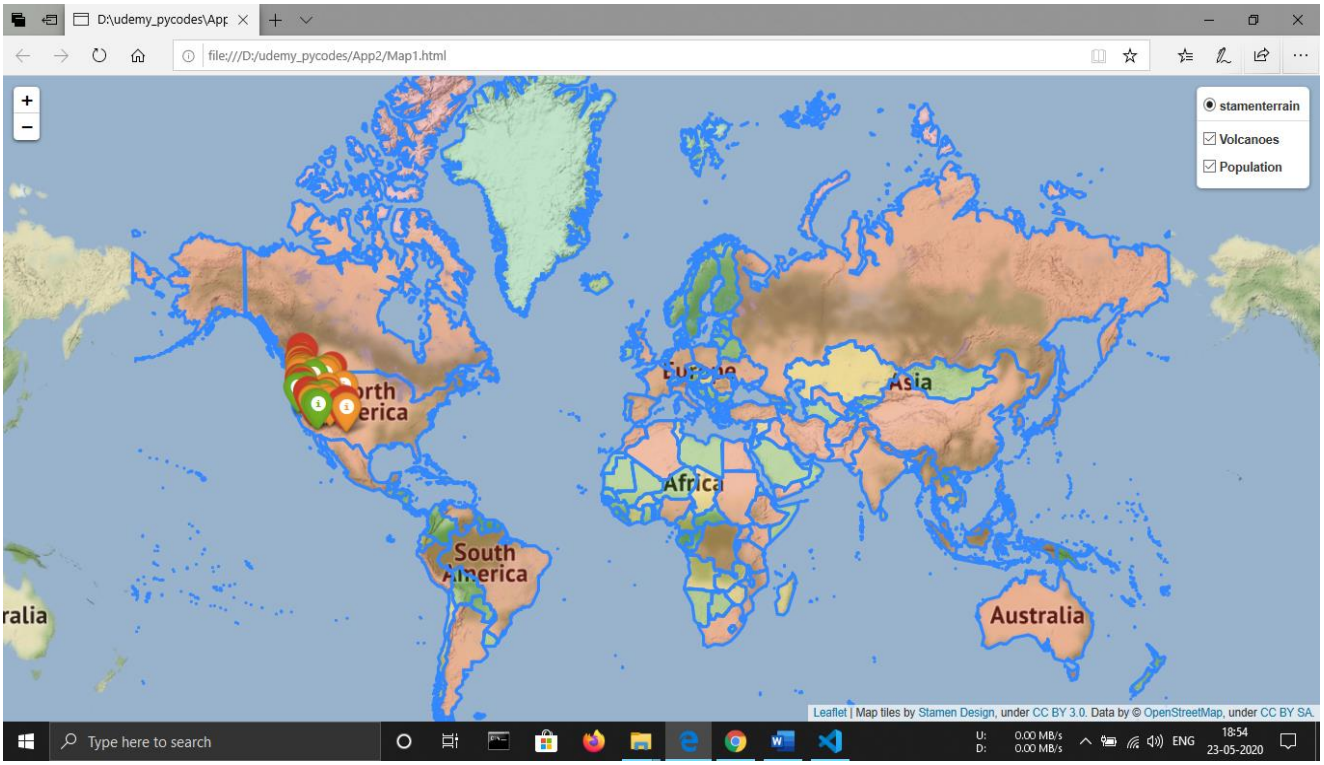
stamenterrain
Volcanoes
Population
Europe
Asia
Africa
South America
Australia
Leaflet | Map tiles by Stamen Design, under CC BY 3.0. Data by © OpenStreetMap, under CC BY SA.
Type here to search
ENG
18:58
23-05-2020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Application 2: Create Webmaps with Python and Folium

- Creating a Base map using **Map ()** function in the folium library.
- To display the map, initial coordinates of the place you want to display should be passed to the location argument in **Map ()** function and should be saved in html file format.
- Initial coordinates is given by latitude (-90 to +90) and longitude (-180 to +180) values in a list format.
- '**Mapbox Bright**' and '**Stamen Terrain**' are both types of base maps, but '**Mapbox Bright**' doesn't work anymore. So, '**Stamen Terrain**' is used which gives a good base map.
- **Marker ()** function under folium library is used to point the specific location to be displayed in the base map.
- To point out multiple locations in the base map for loop is used.
- The locations used in the program are of volcanoes present in USA.
- To get a popup message when you click marked locations Popup argument is specified.
- If you want to have stylized text (bold, different fonts, etc.) in the popup window HTML is used.
- **dir (folium)** method can be used to look for possible methods of creating circle markers.
- A json file containing population details of all countries in the world is read using **Geojson ()** function under folium library.
- A **Geojson polygon layer** is used to represent area of the country.
- **Choropleth map** uses coloring of area to represent its features.
- **Layer control ()** function under folium library is used to control display of different layers on the base map.

Fixing Programming Errors

- Basically, there are two types of errors in python – Syntax and exceptional errors.
- Syntax errors can be found in the line mentioned by the terminal or in the previous lines in the code.
- To fix the difficult errors, the error details can be copied from the terminal and paste it on the google search bar to get the solutions (recommended website is stack overflow).

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Topic:	1] Application 3: Build a Website Blocker	Semester & Section:	6th 'A'
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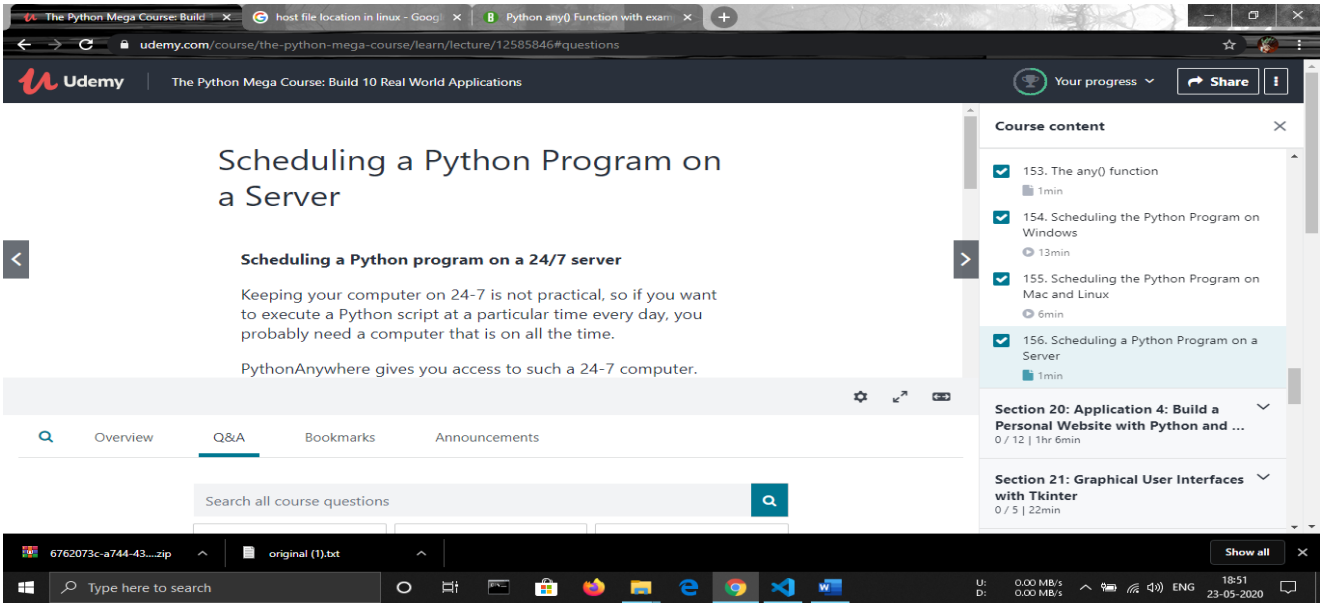
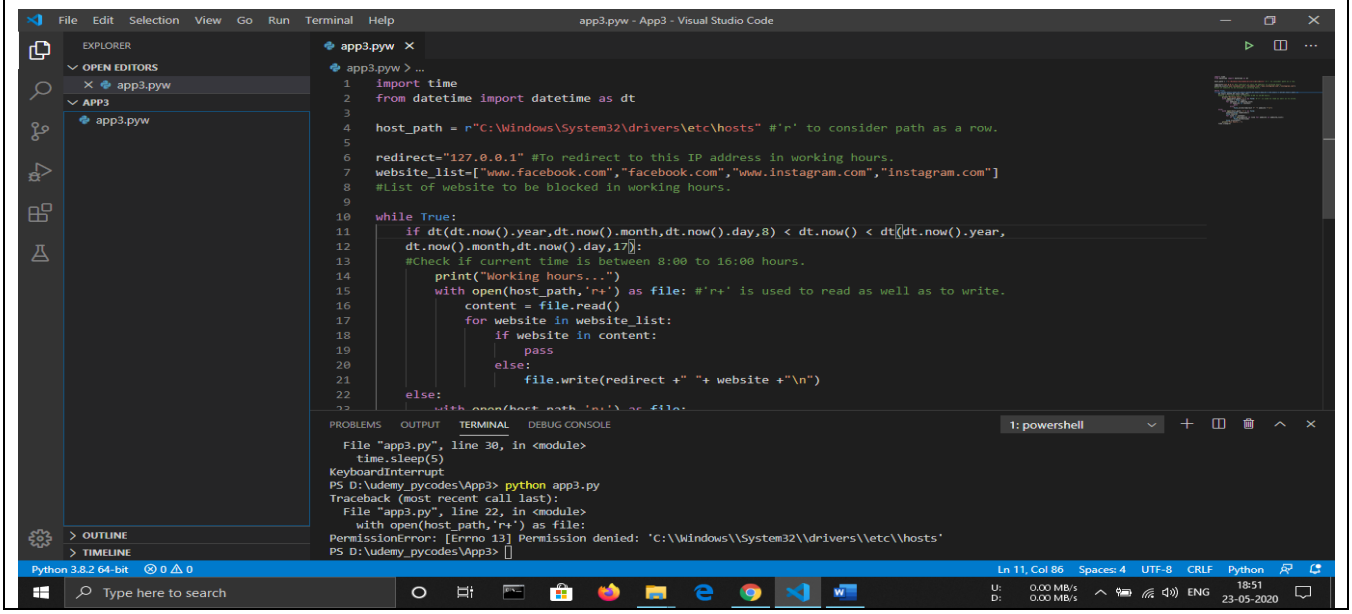
AFTERNOON SESSION DETAILS

Image of session





Report

Application 3: Build a Website Blocker

- The computer file '**hosts'** is an operating system file that maps hostnames to IP addresses. It is a plain text file.
- In Windows 7/8/10, your hosts file is located at: **C:\Windows\System32\drivers\etc\hosts**.
- On Linux, you can find the hosts file under **/etc/hosts** location.
- Current date and time can be obtained from **datetime.now ()** function which is present under time module.
- Lists of websites to be blocked should be stored in a variable in a list format.
- Working hours (websites are blocked) are set by the user, while comparing it with the current time for every fixed time interval.
- To read the host file **file.read ()** function is used and stored in a variable.
- The IP address to be redirected in working hours is also stored in a variable.
- To perform write operation on **host** file **file.write ()** function is used.
- The term 'r+' mode allows to perform read and write operation on file.
- **Sleep (x)** function under time module is used to check condition for every 'x' interval.
- To delete the website list in host file after the working hours complete, can be done using **file.readlines (), file.seek (0)** and **file.truncate ()** functions.
- Python **any ()** function accepts iterable (list, tuple, dictionary etc.) as an argument and return true if any of the element in iterable is true, else it returns false. If iterable is empty then **any ()** method returns false.
- To run python file in the background it must be saved in **file.pyw** format and also should be executed as an administrator (High priority).
- With the help of **Task scheduler**, the program can be successfully executed in the background.

Python Code Challenge – 1

```
Write python code to verify user_name = "Micheal" and password ="e3$WT89x".
The total number of attempts are 03. For every wrong user_name and password
Print - Invalid username or Password, upon three attempts fails print- Accou
nt locked. If inputs are correct Print - You have successfully login.
```

Pycode :

```python
attempts = 3 #Set number of attempts to enter user name and password.

while attempts !=0: #Check until attempts become equal to zero.
    user_name = input("Enter the user name:")
    user_password = input("Enter the user password:")

    if user_name == 'Micheal' and user_password == 'e3$WT89x':
        print("You have successfully logged in!")
        flag = 1
        break
    else:
        attempts-=1 #Decrease number of attempts by 1.
        if attempts !=0:
            print("Invalid user name or password. Try again...")
        else:
            print("You have exceeded the number of attempts.")
            print("Account Locked!")
```