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PYTHON COURSE PROJECT ASSIGNMENT

WEATHER APPLICATION

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İçindekiler Tablosu

A.Project Name

Weather application

B.Purpose

Application that gives the weather, temperature, humidity, pressure, wind speed, time and date of your current location and desired city.

C.Code Section

a.By_city

```
import requests
import time


def by_city():
    city = input("Please enter the city you want to know the weather:")
    print('------------------------------------------------------------')
    url = 'http://api.openweathermap.org/data/2.5/weather?q={}&appid=e10ca2a3a
        city)
    res = requests.get(url)
    data = res.json()
    show_data(data)
```

By using Open Weather Api, the weather information of the desired city was obtained. It shows the weather, temperature, humidity, pressure, wind speed and city name of the desired city.

b.By_location

```
def by_location():
    res = requests.get('https://ipinfo.io')
    data = res.json()

    location = data['loc'].split(',')
    latitude = location[0]
    longitude = location[1]

    print('Weather in your location:')
    print('--------------------------')
    url = 'http://api.openweathermap.org/data/2.5/weather?lat={}&lon={}&appid=e10ca2a3ad4b1f
        latitude, longitude)
    res = requests.get(url)
    data = res.json()
    show_data(data)
```

By using Open Weather Api, the weather information of the desired city was obtained. It shows the weather, temperature, humidity, pressure, wind speed and city name of your location.

c.Show_data

```
def show_data(data):
    temp = data['main']['temp']
    wind_speed = data['wind']['speed']
    pressure = data['main']['pressure']
    humidity = data['main']['humidity']
    description = data['weather'][0]['description']
    name = data['name']

    t = time.localtime()
    print("%s" % time.asctime(t))
    print('-----------')
    print('City: {}'.format(name))
    print('-----------')
    print('Temperature: {} Degree Celsius'.format(temp))
    print('-----------')
    print('Wind Speed: {} m/s'.format(wind_speed))
    print('-----------')
    print('Pressure: {}'.format(pressure))
    print('-----------')
    print('Humidity: {}'.format(humidity))
    print('-----------')
    print('Weather: {}'.format(description))
```

In this section, we select the data we want among the data captured in the by_city and by_location sections and print.

d.Fivedays

```
def fivedays():
    city = input("Please enter the city you want to know the weather:")
    print('-----------------------------------------------------------')
    url = (
        'http://api.openweathermap.org/data/2.5/forecast?q={}&appid=e10ca2a3ad
        city)
    res = requests.get(url)
    data = res.json()

    description = data['list'][1]['weather'][0]['description']
    description1 = data['list'][2]['weather'][0]['description']
    description2 = data['list'][3]['weather'][0]['description']
    description3 = data['list'][4]['weather'][0]['description']
    description4 = data['list'][4]['weather'][0]['description']
    t = time.localtime()
    print("%s" % time.asctime(t))
    print('Weather of the first day: {}'.format(description))
    print('Weather of the second day:{}'.format(description1))
    print('Weather of the third day:{}'.format(description2))
    print('Weather of the fourth day:{}'.format(description3))
    print('Weather of the fifth day:{}'.format(description4))
```

Five-day weather data is called using open weather.

e.Main

```
def main():
    print('1.Get by weather by city')
    print('2.Get by weather by location')
    print('3.Next five days weather')
    choice = input('Please enter your choice:')

    if choice == '1':
        by_city()
    elif choice == '2':
        by_location()
    elif choice == '3':
        fivedays()
    else:
        print("ERROR!!! PLEASE SELECT AGAIN!!!")


if __name__ == '__main__':
    main()
```

In this section, it allows us to choose the weather according to your location or desired city.

D.OUTPUT SECTİON

```
1.Get by weather by city
2.Get by weather by location
Please enter your choice:1
Please enter the city you want to know the weather:manisa
-----------------------------------------------------------
Mon May 18 21:36:11 2020
-----------
City: Manisa Province
-----------
Temperature: 23.83 Degree Celsius
-----------
Wind Speed: 1.77 m/s
-----------
Pressure: 1017
-----------
Humidity: 49
-----------
Weather: overcast clouds
```

As seen in the output, when we select the first option, it asks us about the city we want to know the weather and gives the weather information about the city we chose.

```
1.Get by weather by city
2.Get by weather by location
Please enter your choice:2
Weather in your location:
-------------------------
Mon May 18 21:30:36 2020
-----------
City: Izmir
-----------
Temperature: 26.47 Degree Celsius
-----------
Wind Speed: 2.6 m/s
-----------
Pressure: 1014
-----------
Humidity: 51
-----------
Weather: broken clouds
```

When we select the second option, it shows the weather of the current location. It gives an error if a different option is entered.

```
1.Get by weather by city
2.Get by weather by location
3.Next five days weather
Please enter your choice:3
Please enter the city you want to know the weather:ankara
-----------------------------------------------------------
Mon May 18 22:43:17 2020
Weather of the first day: broken clouds
Weather of the second day:clear sky
Weather of the third day:clear sky
Weather of the fourth day:few clouds
Weather of the fifth day:few clouds
```

In the last option, the last five days weather information of the desired province is printed.