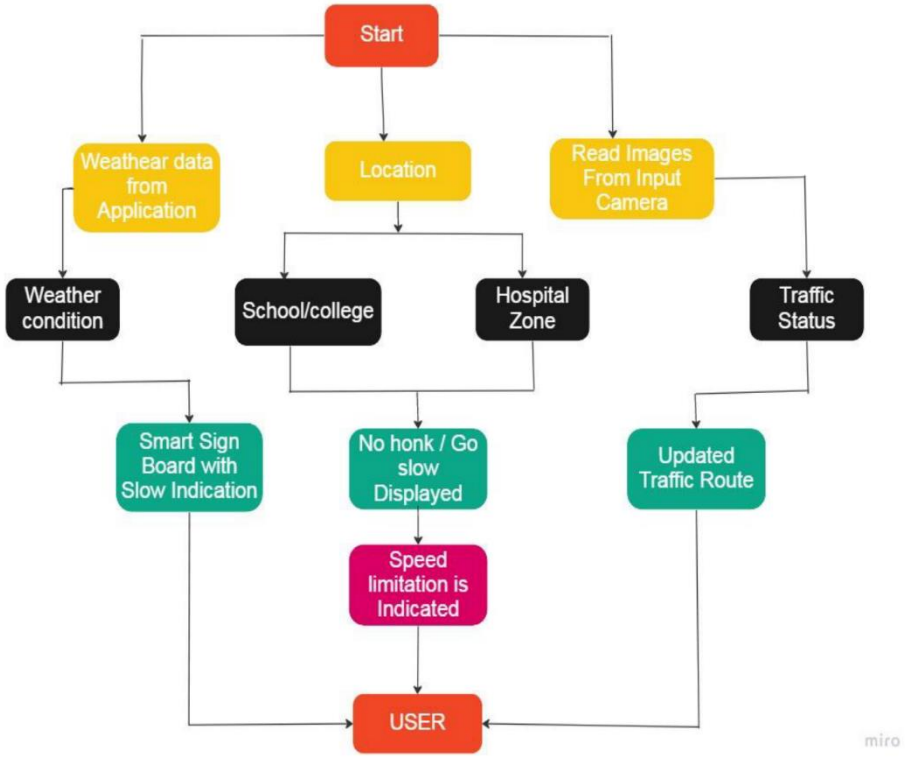
SPRINT 01

Date	27 October 2022
Team ID	PNT2022TMID52873
Project Name	Project – Signs with Smart Connectivity for Better Road Safety

SPRINT GOALS:

1. Create and initialize accounts in various public APIs like OpenWeather API.
2. Write a Python program that outputs results given the inputs like weather and location.

CODE FLOW:



PROGRAM CODE:

Weather.py

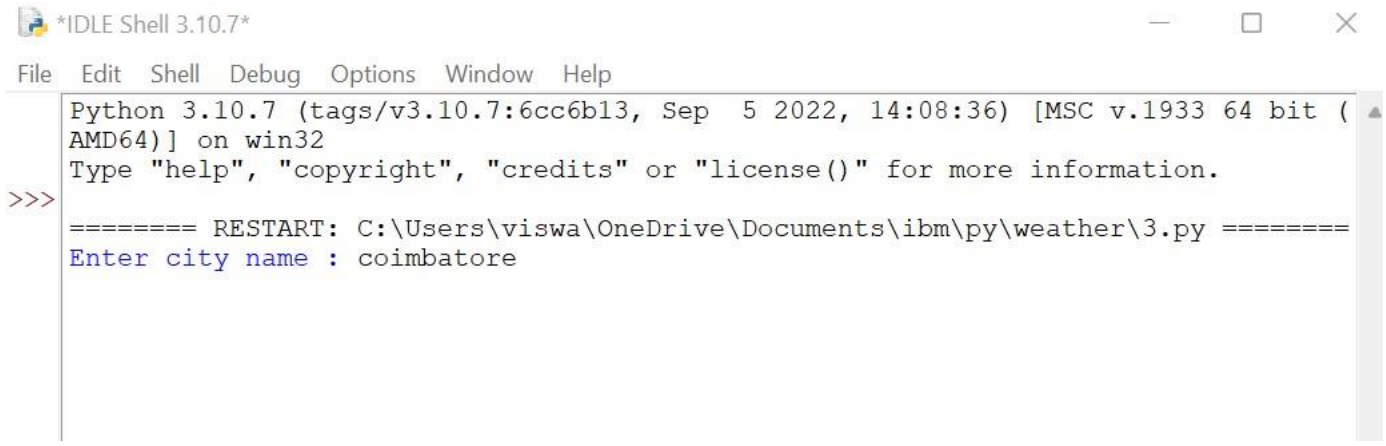
This file is a utility function that fetches the weather from OpenWeatherAPI. It returns only certain required parameters of theAPI response.

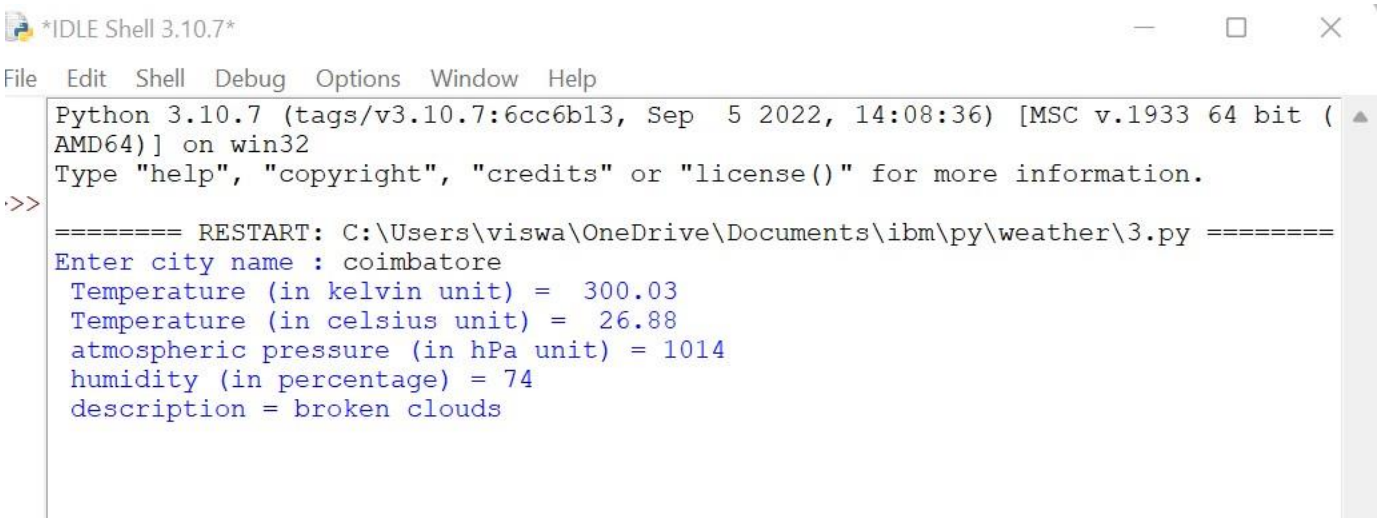
```
#python code

# import required modules
import requests, json, time

# Enter your API key here
api_key = "46faa4ab6fede1d9ae549b90d91253f2"

# base_url variable to store url
base_url = "http://api.openweathermap.org/data/2.5/weather?"



# Give city name
city_name = input("Enter city name : ")
while(1):
# complete_url variable to store
# complete url address
complete_url = base_url + "appid=" + api_key + "&q=" + city_name

# get method of requests module
# return response object
response = requests.get(complete_url)

# json method of response object
# convert json format data into
# python format data
x = response.json()
```

```
# Now x contains list of nested dictionaries
# Check the value of "cod" key is equal to
# "404", means city is found otherwise,
# city is not found
if x["cod"] != "404":

# store the value of "main"
# key in variable y
y = x['main']

# store the value corresponding
# to the "temp" key of y
current_temperature = y["temp"]

# store the value corresponding
# to the "pressure" key of y
current_pressure = y["pressure"]

# store the value corresponding
# to the "humidity" key of y
current_humidity = y["humidity"]

# store the value of "weather"
# key in variable z
z = x["weather"]

# store the value corresponding
# to the "description" key at
# the 0th index of z
weather_description = z[0]["description"]

# print following values
print(" Temperature (in kelvin unit) = ",(current_temperature))
print(" Temperature (in celsius unit) = ",round((current_temperature-
273.15),2))
```

```
print(" atmospheric pressure (in hPa unit) = " +str(current_pressure) )
print(" humidity (in percentage) = " +str(current_humidity))
print(" description = " +str(weather_description))

else:
print(" City Not Found ")

time.sleep(2)
```

OUTPUT:


IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
======== RESTART: C:\Users\viswa\OneDrive\Documents\ibm\py\weather\3.py ========
Enter city name : coimbatore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Type "help", "copyright", "credits" or "license()" for more information.
>>>
======== RESTART: C:\Users\viswa\OneDrive\Documents\ibm\py\weather\3.py ========
Enter city name : coimbatore
Temperature (in kelvin unit) = 300.03
Temperature (in celsius unit) = 26.88
atmospheric pressure (in hPa unit) = 1014
humidity (in percentage) = 74
description = broken clouds

IN Weather API: