

GitHub Co-Pilot Hackathon

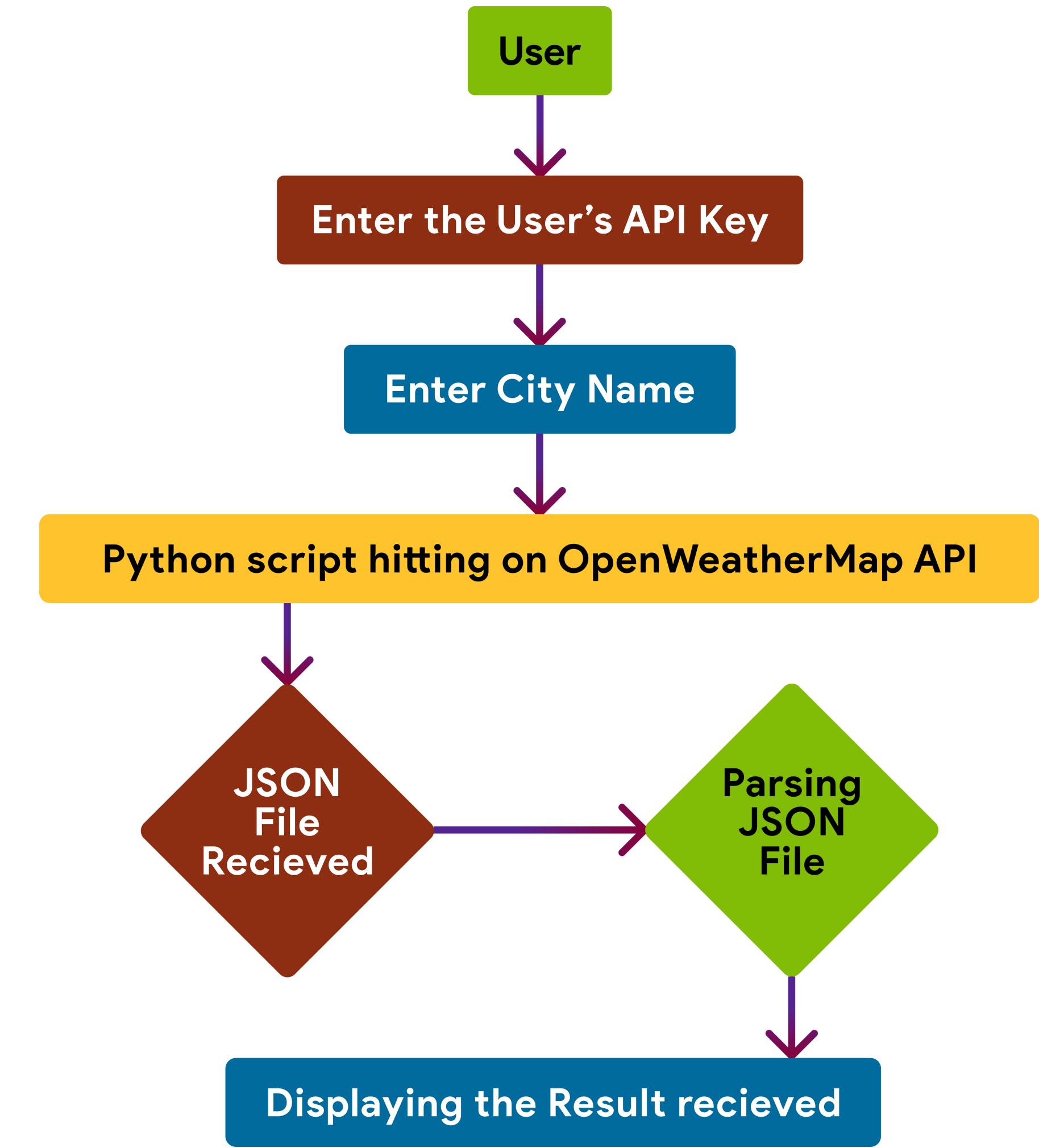
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Problem Statement

Create a command-line tool that accepts a city's name and returns the current weather forecast.

Leverage OpenWeatherMap API to fetch weather data and parse it using Python. Your solution should demonstrate how GitHub Copilot can help you with API usage, data parsing, and error handling.

Solution



GitHub Co-Pilot



GitHub Copilot is an AI pair programmer that offers autocomplete-style suggestions as you code. It is powered by OpenAI Codex, a new AI system created by OpenAI. GitHub Copilot is trained on all languages that appear in public repositories.

- GitHub Copilot can be used with Visual Studio Code, Visual Studio, Neovim, and JetBrains integrated development environments. It is a paid feature, requiring a monthly or yearly subscription.
- GitHub Copilot has been shown to help developers code faster, focus on solving bigger problems, stay in the flow longer, and feel more fulfilled with their work.

Suggestions by GitHub Co-Pilot

1. Importing the Libraries

```
project.py
1 import requests
2 import json
```

2. Making the Wind Direction dictionary

```
wind_directions = {
    'N': (348.75, 11.25),
    'NNE': (11.25, 33.75),
    'NE': (33.75, 56.25),
    'ENE': (56.25, 78.75),
    'E': (78.75, 101.25),
    'ESE': (101.25, 123.75),
}
```

3. Creating the getWindDirection() function

```
def getWindDirection(degree):
    for direction, (lower, upper) in wind_directions.items():
        if lower <= degree < upper:
            return direction
```

4. API Key Input user Prompt

```
apiKey = input("Enter your API Key: ")
```

5. Creating the getCurrentWeather() Function and doing APICall

```
def getCurrentWeather(cityName):
    url = "https://api.openweathermap.org/data/2.5/weather?q={}&units={}appid={}"
    response = requests.get(url)
```

Suggestions by GitHub Co-Pilot

6. Parsing the JSON File received

```
weather = result['weather'][0]['main']  
  
weather = result['weather'][0]['main']  
currentTemp = result['main']['temp']  
  
weather = result['weather'][0]['main']  
currentTemp = result['main']['temp']  
minTemp = result['main']['temp_min']
```

7. Returning the Parsed Data

```
print("The current weather in {} is: {}".format(cityName, weather))  
  
print("The current weather in {} is: {}".format(cityName, weather))  
print("The current temperature is: {}".format(u"{}\u00b0".format(currentTemp)))  
  
print("The current weather in {} is: {}".format(cityName, weather))  
print("The current temperature is: {}".format(u"{}\u00b0".format(currentTemp)))  
print("The temperature feels like: {}".format(u"{}\u00b0".format(feelTemp)))  
  
print("The current weather in {} is: {}".format(cityName, weather))  
print("The current temperature is: {}".format(u"{}\u00b0".format(currentTemp)))  
print("The temperature feels like: {}".format(u"{}\u00b0".format(feelTemp)))  
print("The minimum temperature of the day is expected to be: {}".format(u"{}\u00b0".format(minTemp)))
```

8. City Name input Prompt and calling getWeather()

```
cityName = input("Enter the name of the city: ")  
getCurrentWeather(cityName)
```

9. Handling the Edge Case of CITY NOT FOUND

```
# If response if 404, then city is not found  
if response.status_code == 404:  
  
# If response if 404, then city is not found  
if response.status_code == 404:  
    print("City not found")  
    return
```

10. Handling the Edge Case of INCORRECT API KEY

```
# If response is 401, then API key is invalid  
# If response is 401, then API key is invalid  
if response.status_code == 401:  
    print("Invalid API Key")  
    return
```

Result

Calling the command line tool using the command

butterfly@Sonias-MacBook-Air ~ % python3 main.py

Code — Github-CoPilot-Hackathon

main.py M Code X ⌂ + ⌄ ⌓ ...

```
sers/maverick/Desktop/Github-CoPilot-Hackathon/main.py"
Enter your API Key: cbbd367d7f203ce47a104e0da35e5a65
Enter the name of the city: Bhubaneswar
The current weather in Bhubaneswar is: Haze
The current temperature is: 28.12°
The temperature feels like: 33.95°
The minimum temperature of the day is expected to be: 28.12°
The maximum temperature of the day is expected to be: 28.12°
The air pressure in Bhubaneswar is: 1006 hPa
The humidity in Bhubaneswar is: 89%
The wind speed in Bhubaneswar is: 1.03 m/s
The wind direction in Bhubaneswar is: NW
maverick@Swoyams-MacBook-Air Github-CoPilot-Hackathon %
```

Thank
You!