**TASK 1:Weather api\_plot.py**

import requests  
import matplotlib.pyplot as plt  
  
# API Setup  
api\_key = "2550b7cbc833686856e8f9b659a6adde" # replace with your real key  
city = "Mumbai"  
url = f"https://api.openweathermap.org/data/2.5/weather?q={city}&appid={api\_key}&units=metric"  
  
# Fetch data  
response = requests.get(url)  
data = response.json()  
  
# Debug: Print the whole response to see what you get  
print(data)  
  
# Check if request was successful  
if response.status\_code == 200:  
 # Extract required data  
 temperature = data['main']['temp']  
 humidity = data['main']['humidity']  
  
 # Display data  
 print(f"Temperature in {city}: {temperature}°C")  
 print(f"Humidity in {city}: {humidity}%")  
  
 # Visualize data  
 labels = ['Temperature (°C)', 'Humidity (%)']  
 values = [temperature, humidity]  
  
 plt.bar(labels, values, color=['orange', 'blue'])  
 plt.title(f"Weather Data for {city}")  
 plt.ylabel("Values")  
 plt.show()  
  
else:  
 # Print error message if request failed  
 print(f"Failed to fetch data. Reason: {data.get('message', 'Unknown error')}")

**output:**

C:\Users\haris\PycharmProject\untitledAPI\_Visualization\_Task\venv\Scripts\python.exe C:/Users/haris/PycharmProject/untitledAPI\_Visualization\_Task/weather\_api\_plot.py

{'coord': {'lon': 72.8479, 'lat': 19.0144}, 'weather': [{'id': 800, 'main': 'Clear', 'description': 'clear sky', 'icon': '01d'}], 'base': 'stations', 'main': {'temp': 30.14, 'feels\_like': 33.1, 'temp\_min': 30.14, 'temp\_max': 30.14, 'pressure': 1009, 'humidity': 60, 'sea\_level': 1009, 'grnd\_level': 1009}, 'visibility': 10000, 'wind': {'speed': 3.68, 'deg': 300, 'gust': 3.43}, 'clouds': {'all': 0}, 'dt': 1745732548, 'sys': {'country': 'IN', 'sunrise': 1745714582, 'sunset': 1745760553}, 'timezone': 19800, 'id': 1275339, 'name': 'Mumbai', 'cod': 200}

Temperature in Mumbai: 30.14°C

Humidity in Mumbai: 60%

Process finished with exit code 0

