**Solution for Worksheet 2: Python WWW API**

**Activity 1: Code Exploration**

**Questions and Answers:**

1. **What is the purpose of the requests.get() method in this code?**  
   *Answer:* The requests.get() method is used to make an HTTP GET request to the specified URL and retrieve data from the server.
2. **What type of data is returned by the response.json() method?**  
   *Answer:* The response.json() method returns the data from the API in JSON format, which is automatically parsed into a Python dictionary or list.
3. **What will the program output if the API request is successful?**  
   *Answer:* The program will output the title of the first post from the JSON data, for example:

First post title: sunt aut facere repellat provident occaecati excepturi optio reprehenderit

1. **Modified Code for a POST Request:**

import requests

# URL for the API endpoint

url = "https://jsonplaceholder.typicode.com/posts"

# Data to send in the POST request

payload = {

"title": "My Post",

"body": "This is a test post",

"userId": 1

}

# Making a POST request

response = requests.post(url, json=payload)

# Checking the response status code

if response.status\_code == 201:

print("Post created successfully!")

print("Response:", response.json())

else:

print("Failed to create post. Status code:", response.status\_code)

**Activity 2: Hands-On Coding**

import requests

# Replace 'your\_api\_key' with your actual API key

api\_key = " b17441d694749de87f722a78906e9c1f"

city\_name = "Toronto"

# OpenWeatherMap API URL

url = f"https://api.openweathermap.org/data/2.5/weather?q={city\_name}&appid={api\_key}&units=metric"

# Making a GET request

response = requests.get(url)

# Checking the response status code

if response.status\_code == 200:

data = response.json()

# Extracting information from the JSON response

city = data['name']

temperature = data['main']['temp']

weather = data['weather'][0]['description']

# Displaying the weather data

print(f"City: {city}")

print(f"Temperature: {temperature}°C")

print(f"Weather: {weather.capitalize()}")

else:

print("Failed to fetch weather data. Status code:", response.status\_code)

**Example Output:**  
For the city "Toronto," the output might be:

City: Toronto

Temperature: 15°C

Weather: Clear sky