BIRZEIT UNIVERSITY

COM4381: Web Services Technologies

2nd Semester 2024/2025

Assignment 1 (Consuming RESTful Web Service APIs)

Due April 14th, 2025 (in class)

In this assignment, you will play the role of a developer who is exploring existing RESTful service APIs. It consists of 2 parts as described below. Please visit the following links:

https://github.com/public-apis/public-apis

Part 1: Prepare a 10-min demo highlighting:

1. The service provider

2. The basic functionality of the service

3. How to access the service through its endpoint using a REST client. You can use Postman or Advanced Rest Client. In this part, you need to highlight the main REST principles:

- How the service is represented as a resource
- you need to highlight the root resource URL (maps.google.com) and the paths within this URL (/maps/apis/…)
- The HTTP action (GET, POST, etc.) of the request that you will test
- The representation of the returned response (e.g., json, xml, etc.) and how the API is flexible for showing different representations
- The query parameters if any (e.g., …?longitude=-5.23, latitude=45.12)

4. Your demo should also show us a real scenario of how you would use this service to do something useful.

Part 2: consuming above APIs via client-code:

In this part, you will explore and consume the above RESTful web service directly from the frontend using modern JavaScript technologies like Axios , Fetch API , or any other frontend framework/library of your choice (e.g., React, Vue.js, Angular, etc.). You will demonstrate how to interact with the API, retrieve data, and present it in a user-friendly interface.

Deliverables:

1. You need to specify, by replying to this message, the API that you selected and your team members.

2. You need to do the assignment in groups 3 or 2.

3. You need to follow the schedule that instructor will send.

4. A **presentation** with screenshots or a live demo in the class would suffice. No submissions are needed.

5. **Part 2 code** should be uploaded to a GitHub repository:

    Place all code in a folder named assignment1 within the repository.

    Include a README.md file with:

    Group members' names and student IDs.

    A brief description of the project (what it does, which API you used).

    Instructions to run the project (e.g., required libraries, how to start the app).

6. Email the GitHub repository link to the lecturer by the due date.

Notice: The more interesting the scenario, the more the bonus.

Good luck!