### ****Project Summary: User Management with ReqRes API****

This project involves utilizing the **ReqRes API** to simulate user management operations, such as adding, updating, retrieving, and deleting users. The goal is to demonstrate practical experience in API testing, including sending HTTP requests (GET, POST, PUT, DELETE), validating responses, and handling authentication (if applicable). The project is designed to showcase proficiency with API testing tools like **Postman** and demonstrate the ability to write and automate test cases for each CRUD operation.

#### ****Project Scope:****

**User Creation (POST Request)**:

* 1. Automating the creation of new users with specified attributes (e.g., name, job).
  2. Verifying that the correct user details are returned, including a unique user ID.

**User Retrieval (GET Request)**:

* 1. Using the user ID generated from the POST request to retrieve and validate the created user details.
  2. Ensuring that the response contains the correct user data and that the user is successfully retrieved.

**User Update (PUT Request)**:

* 1. Updating user information (e.g., name or job) and verifying the response to confirm the data has been successfully modified.
  2. Checking that the updated user information reflects correctly in subsequent GET requests.

**User Deletion (DELETE Request)**:

* 1. Deleting the user by sending a DELETE request using the unique user ID.
  2. Verifying that the user is successfully deleted by attempting a GET request and confirming a **404 Not Found** status code.

**Validation**:

* 1. Ensuring correct status codes and error messages are returned for each request (e.g., 200 OK for successful operations, 404 for not found).
  2. Implementing basic assertions in Postman to check the correctness of the response body, status code, and headers.

#### ****Technologies Used:****

* **Postman**: For making API requests, validating responses, and automating tests.
* **ReqRes API**: A free REST API used for testing purposes, providing endpoints for user management.
* **HTTP Methods**: POST, GET, PUT, DELETE to interact with the API.

#### ****Key Learning Objectives:****

* Gain hands-on experience in automating API testing using Postman.
* Understand how to handle different HTTP methods for CRUD operations.
* Learn to write test cases and assertions to validate API responses.
* Develop skills in managing dynamic data (e.g., extracting and using user IDs).
* Practice handling error cases, such as verifying that a deleted user cannot be retrieved.