Class 1: Understanding API Basics, Authentication & Authorization

- **API Overview:** We discussed the core concept of APIs (Application Programming Interfaces), focusing on how APIs allow applications to communicate with each other over the internet.
- **Authentication vs Authorization:**
    - **Authentication** is the process of verifying the identity of a user or system (e.g., username and password).
    - **Authorization** determines what actions the authenticated user is allowed to perform on a system (e.g., access to certain data or functionality).
- **HTTP Status Codes 401 & 403:**
    - **401 Unauthorized**: This error occurs when the user has not provided valid authentication credentials (e.g., missing or incorrect API key).
    - **403 Forbidden**: This error happens when the user is authenticated but does not have permission to access the requested resource.

Class 2: Creating Collections with HTTP Methods

- **HTTP Methods:**
    - **GET**: Used to retrieve data from the server.
    - **POST**: Used to send data to the server, often to create a new resource.
    - **PUT**: Used to update or replace an existing resource on the server.
    - **PATCH**: Used for partial updates to a resource (i.e., updating specific fields, not the entire resource).
    - **DELETE**: Used to remove a resource from the server.
- **PUT vs PATCH:**
    - **PUT** is typically used for full updates where the entire resource is replaced.
    - **PATCH** is used for partial updates, allowing you to modify only specific fields without affecting the entire resource.

Class 3: Data-Driven Testing with JSON and CSV Files

- **Data-Driven Testing Overview:** This technique involves running the same test case multiple times with different input data to ensure consistency and accuracy across various data sets.
- **Using JSON or CSV for Data-Driven Testing:**
    - **JSON**: Structured format used for sending data between a client and server. It can be used as a data source for automated testing tools.
    - **CSV**: A simple text-based format to represent tabular data, often used for test data management.

- **Writing Post-Requisite Scripts:**
    - Post-requisite scripts are written to validate or execute actions after a test step has completed. These scripts are often used to handle API responses or trigger subsequent test cases based on the results of previous ones.