AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)

Faculty of Science and Technology (FST)
Department of Computer Science (CS)
Course: Web Technologies

Lab Task 03: Handling JSON Data Using AJAX

Instructions:

1. **Complete the task using HTML, JavaScript (Vanilla JS), PHP, and JSON.**
2. **Do not reload the page.**
3. **Do not use external JavaScript libraries.**
4. **Push all files to your GitHub repository after completion.**

Scenario:

Servers often return JSON-formatted data instead of plain text. In this lab, you will request JSON data from the server using AJAX, parse it in JavaScript, and display it dynamically.

Task Requirements:

Create the following files:

- index.php - frontend interface
- get_student.php - server-side JSON provider

Part A: Frontend Page (index.php)

1. Create a page with:

- A button labeled "Load Student Data"
- An empty <div> or <ul> for displaying student details

2. When the button is clicked:

- Send an AJAX GET request to get_student.php
- Receive JSON response
- Parse JSON using JSON.parse()
- Display student information dynamically

Part B: Server-Side JSON Response (get_student.php)

1. Create an associative array representing a student:

- id

- name
- email
- department

2. Convert the array to JSON using json_encode().

3. Set response header.

4. Echo the JSON data.

Part C: Error Handling

1. Handle AJAX request failure.

2. Handle invalid JSON gracefully.