Department of Computer Science and Information Technology

CSCI426: Advanced Web Programming
Project Phase 2

Objective
The goal of this project is to enable students to:

- Apply web design and development principles using node.js as a backend.
- Understand client-server communication, database integration.
- Demonstrate version control and deployment skills using Git and GitHub.

Project Description
You are required to complete the backend development portion of your project in order to a completely functional web application that solves a real-world problem or automates a useful task.

Functional Requirements

Your project must include the following:

Backend:

- Use Node.js.
- Implement CRUD operations on a database (MySQL).
- User authentication (Login/Signup).

Database:

- Store at least two related entities (e.g., Users and Orders).
- Use proper data validation and error handling.

Additional Features (Optional Bonus Marks):

- Email notifications, mobile text message.
- Admin panel.

Technical Requirements

- Use Git for version control (must show commit history).
- Host the project on GitHub Pages **Render** or **Railway** (backend).
- Update a README.md file with:
    - Project description
    - Setup instructions
    - Screenshots of the UI

Deliverables

1. Update your Project Report (PDF):
    - Technologies used
    - Code snippets (key parts only)
    - Screenshots of the application
    - Conclusion and future scope
2. Source Code Repository Link (GitHub):
    - Must include all code, assets, and documentation.

Evaluation

Evaluation Criteria Component	Description	Marks
Functionality	Features, CRUD operations, working backend	50
Code Quality	Readability, documentation, version control	15
GITHUB deployment project		10
Report & Presentation	Documentation, clarity, visuals	10
Database Integration	Schema design, queries, relationships	15

Submission Guidelines

- Submit the project report PDF and the GitHub link via google classroom.
- Late submissions will acquire a penalty of 10% per day (max 3 days late).
- Each group must submit a group contribution statement.

Academic Integrity

All work must be original. Plagiarism or use of pre-built templates without citation will result in a zero grade.