

SE1020 – Object Oriented Programing

Assignment: Project

Grade weightage : 10%

Project Overview:

Develop a web-based application to the given topic that allows users to manage and interact with a collection of items or services. The application should be built using Java web technologies in IntelliJ IDEA and will use **file read/write operations for data storage instead of a database.**

Project Objectives:

- Apply **Object-Oriented Programming (OOP)** concepts such as encapsulation, inheritance, and polymorphism.
- Implement **CRUD (Create, Read, Update, Delete)** operations for managing data using **file handling techniques.**
- Create a user-friendly interface for interacting with the system.

Development Environment:

- **Software:** IntelliJ IDEA
- **Languages/Technologies:** Java, JSP, Servlets, HTML/CSS, JavaScript (for UI enhancements). You are allowed to use templates/ Tailwind CSS or Bootstrap to enhance the design and responsiveness of their web application.
- **Data Storage:** File Read/Write (No database)
- **Version Control:** GitHub for collaborative development

Deliverables:

1. **Source Code Files:** All .java, .jsp, and configuration files.
2. **Documentation:**
 - Class diagrams
 - Final report (should include the Git repository commit history)
3. **Viva Presentation:**
 - Each team member must explain their contribution and demonstrate its functionality.
 - Include sample data files (items.txt, users.txt, etc.) for demonstration.
 - Should present the Git repository commit history.
 - During the viva, the questioning will primarily focus on the backend Java code, including the implementation of object-oriented concepts and file handling

Sample project: Online Library Management System

Acceptable Individual Contribution :

- User management
 - Register a new user (Create)
 - Search user (Read)
 - Update available user details (Update)
 - Delete a user (Delete)
- Backend services should be implemented using jsp Servlets and data management should be handled using file read/ writes.
- Minimum 3 UIs.