**SCD Lab**

**Project Proposal:**

**Gym Management System**

**Group Members**

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**Target Audience**

The target audience of the Gym Management System includes:

* **Gym Owners & Administrators:** To manage members, staff, equipment, and financial records.
* **Gym Staff (Trainers, Receptionists, Accountants):** To handle day-to-day tasks like member registration, fee collection, and scheduling.
* **Members/Customers:** To maintain their membership, fitness plans, and payments.

**Project Description**

The **Gym Management System** is designed to automate and simplify the operations of gyms, fitness clubs, and recreation centers.  
The system allows administrators to:

* Maintain member records including personal information, membership plans, and fitness data.
* Manage staff details such as salaries, schedules, and roles.
* Handle payments and generate reports for financial analysis.
* Keep track of gym services, equipment, and facilities.

By automating these processes, the system reduces paperwork, improves accuracy, and enhances communication between members and staff.

**Objectives**

* To develop a **user-friendly system** that requires minimal training.
* To **store, update, and delete** member and staff records securely.
* To implement **salary calculation** for different staff categories (hourly, commission-based, others).
* To provide **quick access to reports** for decision-making.
* To ensure **data security** using encapsulation and access control.

**Technology Stack**

* **Programming Language:** Java (Core Java, OOP concepts)
* **Frontend:** Java Swing / JavaFX (for GUI)
* **Backend/Database:** MySQL
* **Middleware/Connectivity:** JDBC (Java Database Connectivity)

**Tools and Software**

* **IDE:** IntelliJ IDEA
* **Database Tool:** MySQL Workbench or SQLite Studio
* **Version Control:** GitHub
* **Design Tools:** Draw.io and Canva (for UML & ERD diagrams)
* **Other Tools:** MS Word/PowerPoint for documentation & presentation

**Expected Outcomes**

* A fully functional **Gym Management System** with:
  + Secure login for administrators and staff.
  + Member management (add, update, delete, view).
  + Staff management with salary calculations.
  + Payment management system.
  + Reports for members, staff, payments, and services.
* Easy-to-use interface with efficient database integration.