

Canteen Management System

1. Project Title

Canteen Management System using Core Java, JDBC, and MySQL

2. Project Description

The Canteen Management System is a menu-driven command-line application developed using Core Java and JDBC. It manages food items and customer orders efficiently using a MySQL database.

3. Objectives

- Implement JDBC connectivity with MySQL
- Perform CRUD operations
- Understand layered architecture
- Develop a real-world Java application

4. Technologies Used

Java – Application logic

JDBC – Database connectivity

MySQL – Data storage

CLI – User interaction

5. System Architecture

- DTO Layer – Data transfer
- DAO Layer – Database operations
- Service Layer – Business logic
- Main Layer – User interface

6. Database Design

The project uses two tables: food_items and orders to store menu and order details.

7. Functional Modules

- Add Food Item
- View Food Menu
- Place Order
- View Orders
- Delete Food Item

8. Security Measures

- PreparedStatement to prevent SQL Injection
- Input validation in service layer
- Proper separation of layers

9. Learning Outcomes

- JDBC programming skills
- Database handling using MySQL
- Layered architecture understanding
- Java command-line application development

10. Future Enhancements

- Login system (Admin/User)
- Bill generation
- Sales reports
- GUI using JavaFX or Swing

11. Conclusion

This project demonstrates effective use of Core Java, JDBC, and MySQL to build a menu-driven

real-world application.