

Mall Management System Project

Developed a comprehensive Mall Management System as part of a semester project, encompassing multiple functionalities to enhance mall operations. The system includes features such as:

- **Elevator Management:** Simulation of an elevator system with states like IDLE, MOVING_UP, and MOVING_DOWN, alongside fingerprint verification for user access.
- **Shopping Cart Management:** Structures to handle products, pricing, and cart items, facilitating efficient shopping experiences.
- **Food Order Management:** Functionality to manage food orders, track order numbers, costs, and order statuses.
- **Movie Booking System:** Integration of a movie booking system allowing users to view available seats, book tickets, and calculate total costs.
- **Inventory Management:** Handling of book inventories with details on authors, titles, prices, publication dates, and quantities.
- **Mall Area and Equipment Management:** Structures to manage various mall areas and their equipment, including lights and HVAC systems, ensuring efficient power consumption.

The project involved extensive use of C programming concepts such as structures, file handling, and user input validation, providing a practical solution for managing diverse operations within a mall environment.