

LAB 4

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Documentation Report

System Title: Property Custodian Inventory Management System

Purpose: To manage and monitor inventory items under the custody of authorized personnel in an organization.

Prototype and System Design Review

The approved prototype was reviewed for adherence to the system's CRUD (Create, Read, Update, Delete) workflow. The design supports inventory item tracking, user records, and custodial assignments.

CRUD Workflow and Database Structure

CRUD Operations:

- **Create:** Add new user records and inventory items.
- **Read:** View existing users and inventory lists.
- **Update:** Modify user or item details.
- **Delete:** Remove or deactivate user or item records.

Database Schema:

- **Users Table:**
 - id (Primary Key)
 - name
 - email
 - role (e.g., admin, staff, custodian)

- created_at
- updated_at

Prototyping Phase

Wireframe & UI Design:

- A wireframe was created using Figma showing:
 - A dashboard
 - CRUD forms for users and inventory
 - Navigation bar for modules (Users, Inventory, Reports)

User Flow:

- **Create:** Admin clicks “Add User” or “Add Item,” fills the form, submits data.
- **Read:** Records are displayed in tables with search and filter options.
- **Update:** Admin selects a record, modifies details, and saves.
- **Delete:** Admin clicks “Delete,” confirms action via prompt.

Database Schema Setup

Users Table Sample Data:

id	name	email	role	created_at	updated_at
1	Yasser labao	yasser@example.com	Admin	2025-05-20 12:00:00	2025-05-20 12:00:00
2	Mark cordova	mark@example.com	Custodian	2025-05-21 13:00:00	2025-05-21 13:00:00

System Implementation

Create Operation:

- User form with fields: name, email, role.
- Input validation for empty fields and email format.
- Data securely inserted into the database.

Read Operation:

- Display of user records in a paginated and sortable table.

Update Operation:

- Edit form pre-filled with existing data.
- Input validation applied.
- Records updated in the database upon save.

Delete Operation:

- Delete button with confirmation prompt.
- Records marked as inactive for data retention.

Testing and Debugging

- **Unit Testing:** Each CRUD operation tested independently.
- **Validation Tests:** Checked for empty fields, duplicates, invalid email formats.
- **Database Checks:** Ensured queries execute correctly and validations work as expected.

Conclusion:

The Property Custodian Inventory Management System prototype successfully implements CRUD operations with a functional database structure and user-friendly interface. The system is ready for further enhancements and deployment.