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Section D

Database Systems

Café Management System

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Functional Requirements and Features

1. Cafe Manager Module:

Responsibilities:

- Oversee overall cafe operations.

- Plan menus and implement pricing strategies.

- Manage staff, including hiring, scheduling, and training.

- Handle inventory management and vendor relationships.

- Oversee financial management and reporting.

- Monitor customer satisfaction and service quality.

Functional Requirements:

- User-friendly dashboard for quick access to key metrics.

- Menu planning tools with options for pricing adjustments.

- Staff management features, including a schedule generator.

- Inventory tracking tools and automated reorder suggestions.

- Financial reporting tools for revenue, expenses, and profits.

- Customer feedback and satisfaction tracking.

2. Cashier Module:

Responsibilities:

- Process customer payments efficiently.

- Manage cash and operate the cash register.

- Provide receipts and change to customers.

Functional Requirements:

- User-friendly interface for quick and accurate payment processing.

- Integration with payment gateways for card transactions.

- Cash management tools with the ability to reconcile at the end of shifts.

- Receipt generation and handling change calculations.

3. Inventory Manager Module:

Responsibilities:

- Manage inventory levels and orders.

- Track ingredient usage and waste.

- Conduct regular stock checks and reconcile discrepancies.

Functional Requirements:
- Real-time inventory tracking with low-stock alerts.
- Automated order suggestions based on inventory levels.
- Tools for tracking ingredient usage and waste.
- Periodic stock check features with reconciliation options.

4. Menu Management Module:

Responsibilities:
- Create and manage the cafe's menu.
- Include categories, items, descriptions, prices, and nutritional information.

Functional Requirements:
- Intuitive menu creation and editing tools.
- Option to categorize items and include detailed descriptions.
- Pricing management with the ability to set discounts or specials.
- Nutritional information tracking for menu transparency.

5. Order Management Module:

Responsibilities:
- Handle order placement, modification, and tracking.
- Provide status updates to customers.

Functional Requirements:
- Streamlined order placement with customization options.
- Real-time order tracking for customers and staff.
- Tools for modifying orders and handling order cancellations.
- Automated status updates for customers.

6. Reporting and Analytics Module:

Responsibilities:
- Generate reports on sales, revenue, inventory usage, and customer data.
- Analyse data for informed decision-making.

Functional Requirements:
- Customizable reporting templates for various metrics.

- Real-time analytics tools for quick insights.

- Data visualization features for better interpretation.

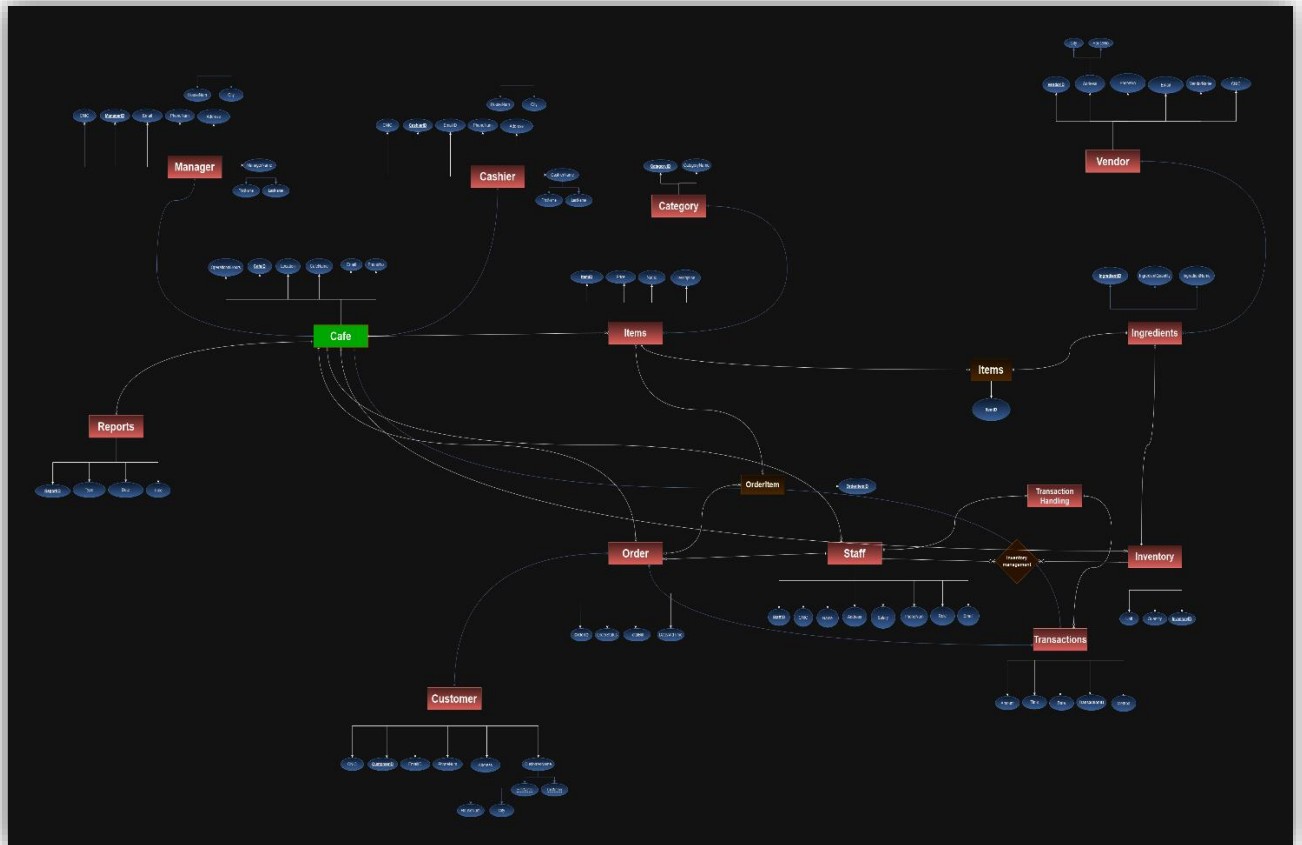- Export options for sharing reports with stakeholders.
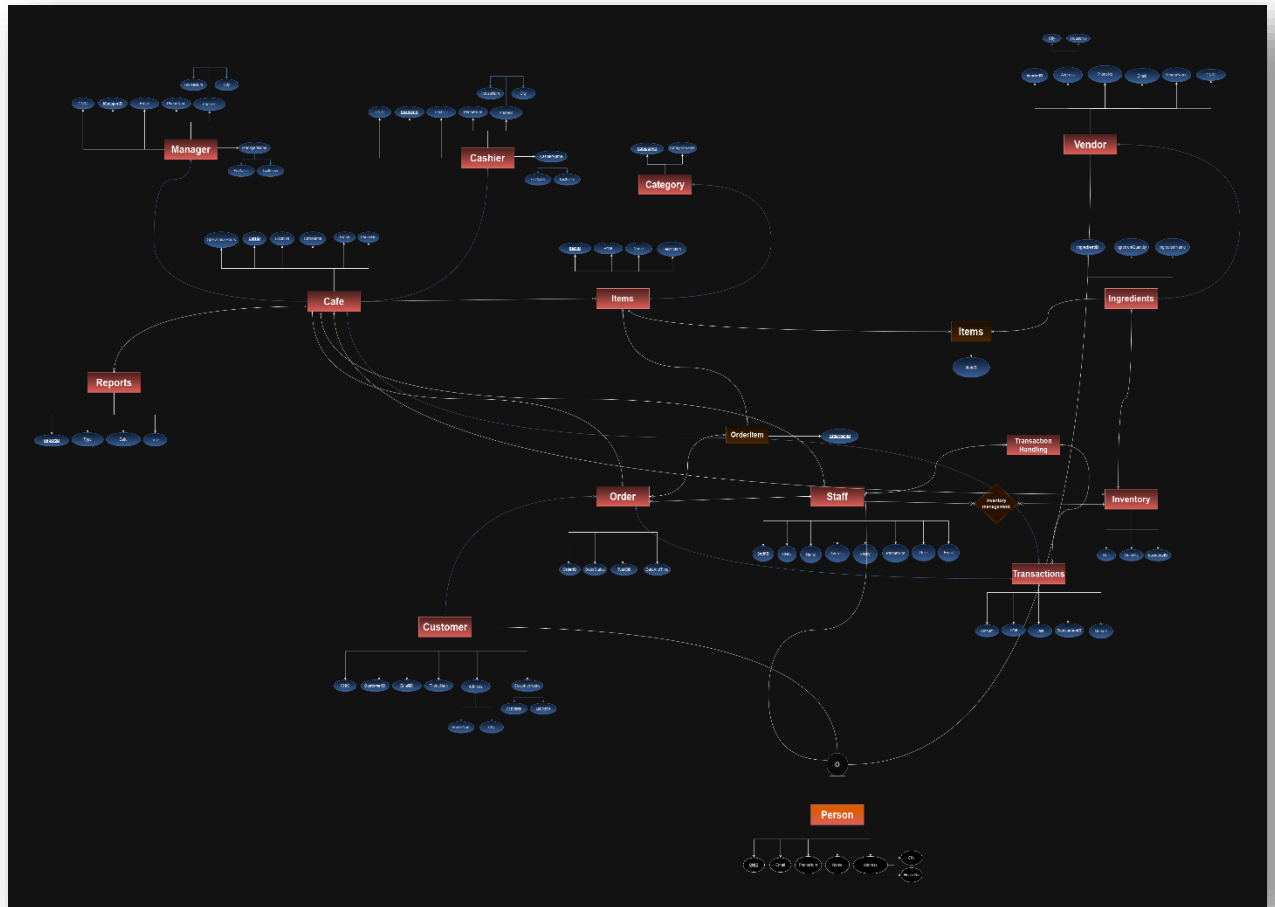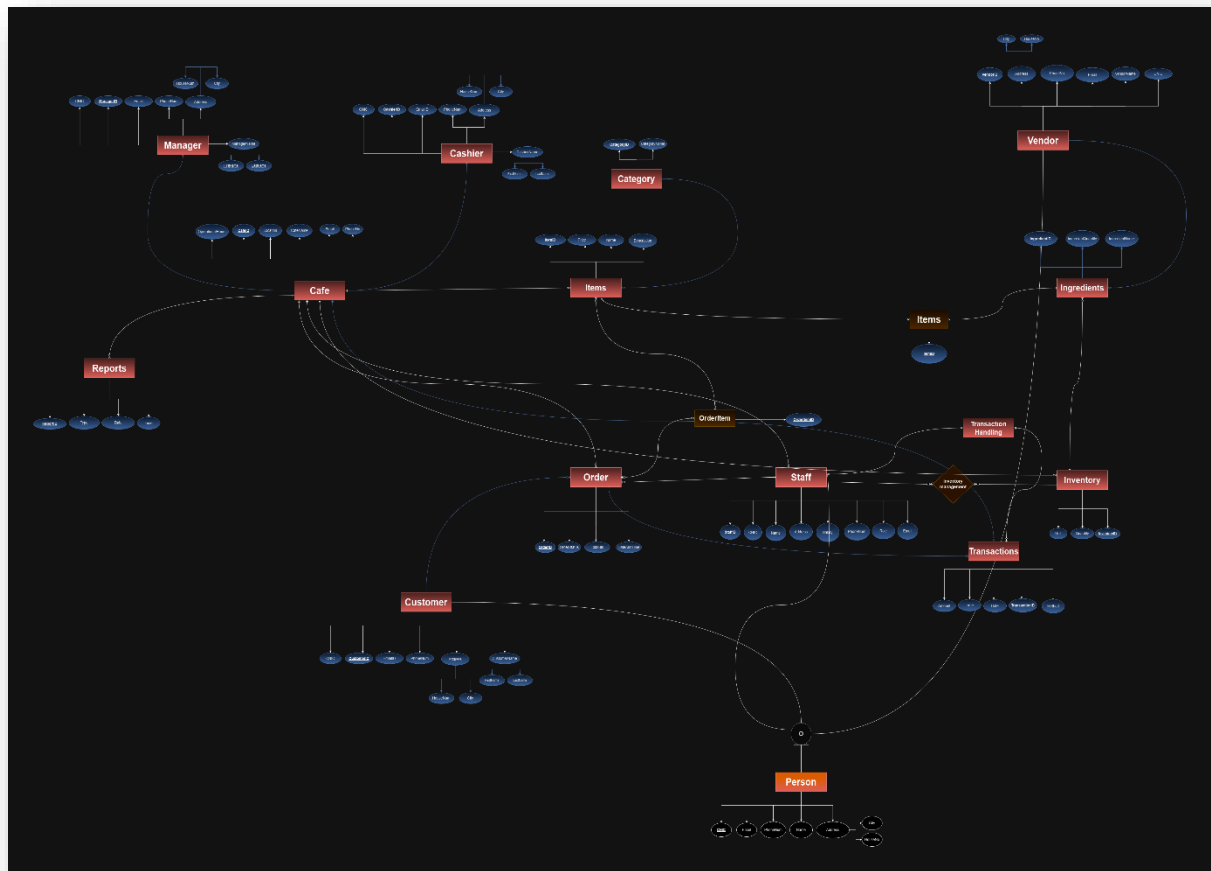
ERD

Figure 1 - ERD

EERD

Figure 2 - EERD

Relational Database Schema

User Documentation and Help

Customer

1. Registration:

- If you're a new customer, navigate to the registration form to create an account.

- Enter your details and click on the register button.

2. Login:

- Enter your registered email and password to log in.

- After successful login, you will be directed to the Dashboard.

3. Dashboard Operations:

Place Order:

- Navigate to the "Place Order" section.

- Select items from the menu and customize your order.

- Confirm your order and proceed to payment.

Give Feedback:

- Share your experience by providing feedback.

- Rate the cafe's service on a scale of 1 to 5.

- Add comments if desired.

Apply Loyalty Program:
- Explore the loyalty programs available.

- Apply relevant discounts or rewards during checkout.

Logout:
- Click the Logout button to safely exit the system.

Cafe Manager

1. Registration:
- If you're a new cafe manager, register through the designated form.

- Fill in the required information and click on the register button.

2. Login:
- Use your registered email and password to log into the system.

- Upon successful login, you'll be directed to the Dashboard.

3. Dashboard Operations:
Register Staff:
- Access the "Register Staff" section to manage your team.

- Add, remove, update, or view staff members as needed.

Manage Menu:
- Navigate to the "Manage Menu" section.

- Add, remove, or view menu items.

- Implement pricing strategies and adjust menu configurations.

Manage Inventory:
- Access the "Manage Inventory" section for inventory-related tasks.

- Add, remove, or update items in the inventory.

View Orders:
- Check and manage incoming orders from the "View Orders" section.

Logout:
- Safely exit the system by clicking the Logout button.

Cashier

1. Registration:
- New cashiers can register using the provided form.

- Fill in the required information and click on the register button.

2. Login:
- Use your registered email and password to log into the system.

- After successful login, you'll be directed to the Dashboard.

3. Dashboard Operations:

POS Operations:

- Access the "POS" section to manage transactions.

- Add, remove, or delete transactions as necessary.

Order Summary:

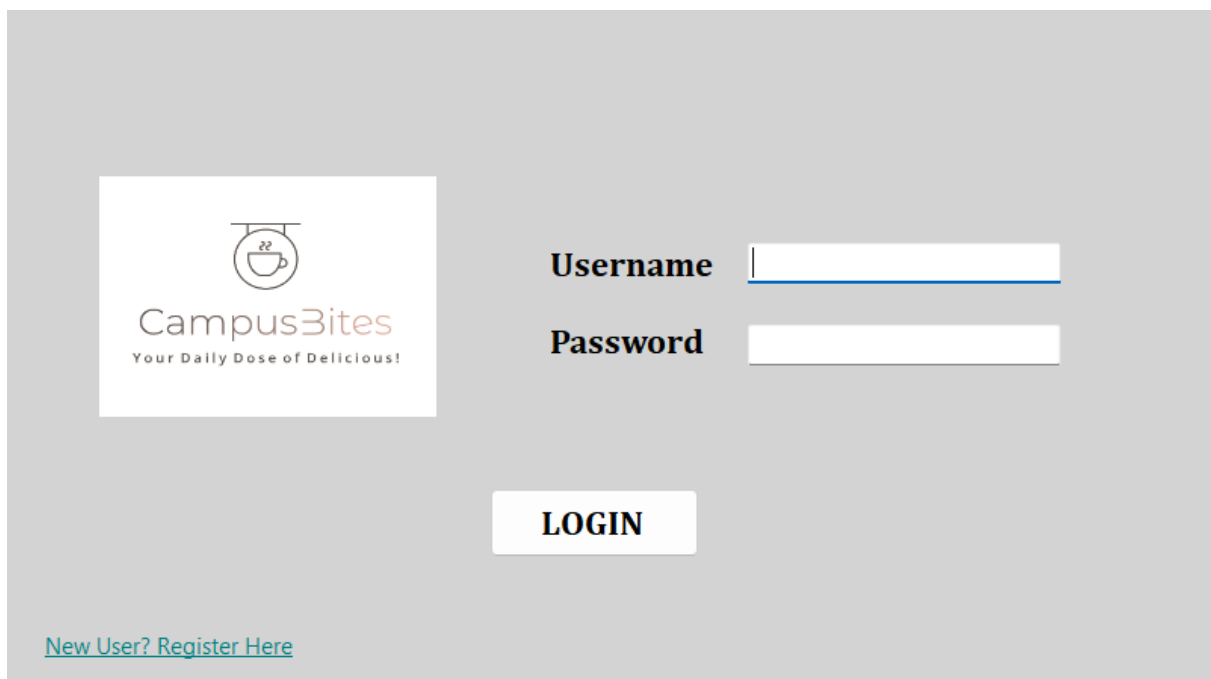- Review and manage the order summary for accurate billing.

Generate Receipt:

- In the "Generate Receipt" section, create and provide receipts for customer orders.

Logout:

- Click the Logout button to securely exit the system

Screenshots

Cashier Point of Sale

Manage Register

Clock In/Out

Enter Order ID

Enter

Order Details

Process Payment

LOG OUT

Categories

Add to Cart

Feedback

LOG OUT

Firstname
Lastname
Email
Username
Password

CNIC
Phone
City
Street
House

REGISTER

Already Registered? Login

Manage Menu

Manage Staff

Manage Inventory

Manage Finances

Customer Satisfaction

LOG OUT

Cafe Manager Dashboard

Sales
Revenue
Month / Year

Submit

Monthly Reports

	Sales ID	Monthly Sales	Monthly Revenue	Time Peri
▶	1	50000	10000	Jan / 2023
	2	55000	12000	Feb / 202
	3	60000	13000	Mar / 202