Database Final Project Documentation

Project Title: Coffee Shop Management System

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Project Description:

The Coffee Shop Management System is designed to streamline the operations of a coffee shop by efficiently managing orders, products, employees, and customer interactions. This system will allow employees to manage the coffee menu, handle customer orders, and monitor sales. Additionally, shop managers can access reports on sales. The primary objective is to automate manual tasks such as order processing and employee management, ensuring a more efficient and seamless experience for both customers and employees.
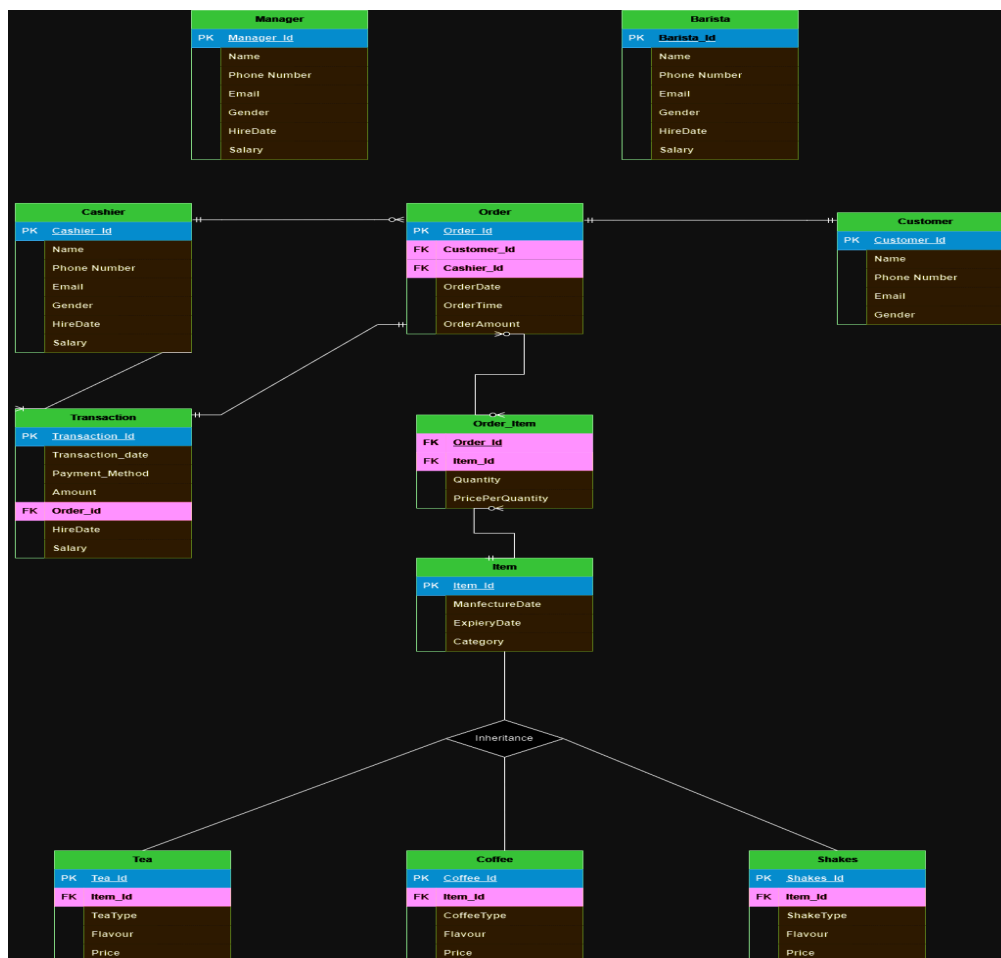
Scope:

The core features of the Coffee Shop Management System include:

- **Order Management**: Record and track customer orders, including itemized details of each order.
- **Product and Management**: Manage the coffee menu with product details (name, category, price).
- **Customer Management**: Maintain records of customer details to encourage repeat business.
- **Employee Management**: Monitor employee roles, track orders handled by each employee, and manage payroll.

Stakeholders:

- **Primary Users**: Baristas, cashiers, and managers handling orders, customers, and inventory.
- **Secondary Users**: Frequent Customers.
- **System Administrators**: Managers responsible for maintaining the system and user access.

Entity-Relationship Diagram (ERD):

Schema Design:

The Customer table has these columns: Customer_ID, Name, PhoneNo, Address, and Gender. The primary key is Customer_ID, and PhoneNo is a candidate key because it should be unique.

The Manager table includes: Manager_ID, Name, PhoneNo, Address, and Gender.

The Helper table has these columns: Helper_ID, Name, PhoneNo, Address, Gender, HireDate, and Salary.

The Cashier table includes: Cashier_ID, Name, PhoneNo, Address, Gender, HireDate, and Salary.

The Order table has these columns: Order_ID, OrderDate, OrderTime, OrderAmount, Customer_ID, and Cashier_ID.

The Item table includes: Item_ID, Category, Size, Mfg_Date, and EXP_Date.

The Tea table has these columns: Tea_ID, Item_ID, TeaType, CaffeineLevel, Flavour, and Price.

The Coffee table includes: Coffee_ID, Item_ID, BeanType, BrewStrength, Flavour, and Price.

The Shake table has these columns: Shake_ID, Item_ID, Topping, Flavour, and Price.

The Transaction table includes: Transaction_ID, TransactionDate, PaymentMethod, Tax, Amount, Order_ID, and Cashier_ID.

Finally, the Order_Item table has these columns: Order_ID, Item_ID, Quantity, and PricePerUnit.