

Business Requirement Document (BRD)

Project Name: Store Database Management System (PART - 1)

1. Objective:

Develop a structured database to manage store operations, including inventory, staff, customers, and orders. The system will centralize data storage, improve efficiency, and streamline reporting.

2. Business Objectives

- Maintain accurate records of store locations, employees, products, and customers.
- Track sales transactions, including orders and order items.
- Manage inventory levels across multiple store locations.
- Enhance data integrity through relational database constraints.
- Enable efficient data retrieval and reporting for business insights.

3. Scope

In Scope:

- Store management
- Staff information tracking
- Product catalog management
- Customer data management
- Order processing and tracking
- Inventory management

4. Functional Requirements

4.1 Stores Management

- Maintain a list of store locations.
- Capture store details: Name, phone, email, address, city, state, and zip code.

4.2 Staff Management

- Store employee details, including first name, last name, email, and phone.
- Associate staff with stores.
- Track managers by linking staff to other staff members.
- Maintain active status for employees.

4.3 Product Management

- Maintain product details, including name, brand, category, model year, and list price.
- Categorize products by category and brand.

4.4 Customer Management

- Store customer details such as name, phone, email, and address.

4.5 Order Management

- Capture customer orders with order status, order date, required date, and shipped date.
- Associate orders with customers, staff, and stores.
- Track individual order items, including product, quantity, list price, and discounts.

4.6 Inventory Management

- Maintain stock levels for each product at each store location.
- Track the quantity of products available per store.

5. Data Model

5.1 Tables

Stores Table

- The stores table includes the store's information. Each store has a store name, contact information such as phone and email, and an address including street, city, state, and zip code.

Staffs Table

- The staffs table stores the essential information of staffs including first name, last name. It also contains the communication information such as email and phone.
- A staff works at a store specified by the value in the store_id column. A store can have one or more staffs.
- A staff reports to a store manager specified by the value in the manager_id column. If the value in the manager_id is null, then the staff is the top manager.
- If a staff no longer works for any stores, the value in the active column is set to zero.

Categories Table

- The categories table stores the bike's categories such as children bicycles, comfort bicycles, and electric bikes.

Brands Table

- The brands table stores the brand's information of bikes, for example, Electra, Haro, and Heller.

Products Table

- The products table stores the product's information such as name, brand, category, model year, and list price.
- Each product belongs to a brand specified by the brand_id column. Hence, a brand may have zero or many products.
- Each product also belongs a category specified by the category_id column. Also, each category may have zero or many products.

Customers Table

- The customers table stores customer's information including first name, last name, phone, email, street, city, state and zip code.

Order Table

- The orders table stores the sales order's header information including customer, order status, order date, required date, shipped date.
- It also stores the information on where the sales transaction was created (store) and who created it (staff).
- Each sales order has a row in the sales_orders table. A sales order has one or many line items stored in the order_items table.

Order_Items Table

- The order_items table stores the line items of a sales order. Each line item belongs to a sales order specified by the order_id column.
- A sales order line item includes product, order quantity, list price, and discount.

Stocks Table

- The stocks table stores the inventory information i.e. the quantity of a particular product in a specific store.