Database Project Phase 1

## Submitted by:

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### **Purpose of the Grocery Store Database**

The purpose of this grocery store database is to:

* **Organize and manage key operational data** for a grocery store, including product listings, inventory levels, product categories, suppliers, customer information, and customer orders.
* Track inventory through the **Products** table, including stock quantities and their associated suppliers.
* Classify products using the **Categories** table for easier filtering and browsing.
* Store customer data such as name, email, and phone number via the **Customers** table to support order management.
* Record customer orders using the **Orders** table, which tracks order date and total amount.
* Detail each order’s contents via the **Order\_Details** table, which includes product IDs, quantities, and item-level prices.
* **Support a connected website** where customers can browse products, add them to a cart, and place orders — with all actions interacting directly with the database.

This project will demonstrate the practical use of relational databases to support real-world grocery store operations through efficient data management and user interaction.

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### **Target Audience**

1. **Store Managers / Administrators**
   * Use the system to add, edit, or delete products.
   * Design the database to support inventory tracking through the **Products** table, including stock quantities. This functionality may be used for future website features such as low-stock alerts or admin inventory views, but it will not be part of the initial website implementation.
   * Manage suppliers through the **Suppliers** table.
   * Review customer orders and related product details via **Orders** and **Order\_Details**.
2. **Customers (Website Users)**  
   * Place orders by selecting items and providing personal information.
   * Their data is stored in the **Customers** table, and their orders are logged in **Orders** and **Order\_Details**.
3. **Teacher**
   * Assess the quality and design of the database schema (tables, relationships, and normalization).
   * Evaluate how well the database supports website features.
   * Test SQL query performance and integrity of relationships between tables.

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### **ERD Diagram (made using Draw.io)**

### Grocery Store DBMS

