**The Super Market Database**

**Group C**

A supermarket database Project with:

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***The Supermarket data requirements***

* ****Product Information**:**
  + Product ID, name, description, category, and brand.
  + Pricing details including regular price, sale price, and discounts.
  + Supplier information for inventory management.
* ****Inventory Management****:
  + Stock levels, reorder points, and expiration dates.
  + Warehouse locations and storage conditions.
* ****Customer Data****:
  + Customer ID, name, contact information, and purchase history.
  + Loyalty program details and preferences.
* ****Transaction Records****:
  + Sales transaction ID, date, time, and total amount.
  + Payment methods and transaction status.
* ****Employee Information****:
  + Employee ID, name, role, and contact details.
  + Work schedules and performance metrics.

*****Functional Requirements*****

* ****User Authentication****:
  + Secure login for employees and administrators.
  + Role-based access control to restrict functionalities.
* ****Inventory Management****:
  + Ability to add, update, and delete product information.
  + Track stock levels and generate alerts for low inventory.
* ****Sales Processing****:
  + Process customer transactions and generate receipts.
  + Support for various payment methods (credit card, cash, etc.).
* ****Reporting****:
  + Generate sales reports, inventory reports, and customer analytics.
  + Provide insights into sales trends and inventory turnover.
* ****Customer Management****:
  + Manage customer profiles and loyalty program participation.
  + Track customer preferences and purchase history.

*****Non-Functional Requirements*****

* ****Performance****:
  + The system should handle a high volume of transactions without significant delays.
  + Response time for user queries should be within acceptable limits.
* ****Security****:
  + Implement data encryption for sensitive customer information.
  + Regular security audits to identify and mitigate vulnerabilities.
* ****Usability****:
  + User-friendly interface for both customers and employees.
  + Accessibility features to accommodate users with disabilities.
* ****Scalability****:
  + The system should be able to scale to accommodate growth in product lines and customer base.
  + Support for additional features and integrations in the future.
* ****Reliability****:
  + Ensure high availability of the system with minimal downtime.
  + Regular backups and disaster recovery plans to protect data integrity.