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Database Management
410-CT3-AS

ACCESS PROJECT

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LaSalle College
October 2024

Business Scenario: Clothing Boutique

1 Purpose of the Database

The clothing boutique database will streamline and simplify daily operations by organizing essential business data. It will manage customer information, track inventory, record sales, monitor employee performance, and generate key business reports. This system aims to improve efficiency, enhance customer service, and support better decision-making within the boutique.

2 Key Functionalities

Customer Management: store customer details and purchase histories, enabling personalized marketing, loyalty programs, and the identification of top customers based on spending.

Inventory Management: keep detailed records of all products, track stock levels, and automatically update inventory when items are sold or returned.

Sales Management: record sales transactions, including items details, prices, quantities, and customer information, while also calculating employee sales commissions.

Employee Management: store employee data and monitor performance by tracking sales contributions.

Business Reports: generate essential reports for analysis, covering areas such as sales, inventory, and employee performance.

3 Entities to be Tracked

Customers: track all information related to the customers, including name, contact information, purchase history, and loyalty points.

Products/Inventory: store information about all available clothing items, including product ID, name, category (dresses, accessories), size, color, price, and stock quantity.

Orders/Sales: each sale will be recorded, including the transaction date, customer involved, products sold, quantity, total amount, payment method and generated commission.

Employees: track employee details, such as employee ID, name, position, contact and sales commission.

4 Needed Reports

Monthly Sales Report: provide an overview of total sales per month, broken down by product category, best-selling items, and overall revenue.

Customer Purchase History: a detailed record of customer transactions, including products purchased, total amount spent, and purchase frequency.

Inventory Status: provide the current stock levels of all products, with highlights for items that are running low or need to be reordered.

Employee Performance: a report tracking each employee's sales figures, including the number of transactions they completed, total revenue they contributed to, and total of sales commission earned, useful for evaluating promotions or bonuses.

5 Entity-Relationship (ER) Diagram

Customers
- CustomerID
- FirstName
- LastName
- DateOfBirth
- PhoneNumber
- Email
- Address
- LoyaltyPoints
- TotalAmountPurchased

Sales
- SalesID
- Date
- CustomerID
- EmployeeID
- ProductID
- Quantity
- TotalSales
- PaymentMethod

Employees
- EmployeeID
- EmployeeFirstName
- EmployeeLastName
- Position
- PhoneNumber
- TotalSalesQuantity
- TotalSalesAmount
- SalesComission

Inventory
- ProductID
- Name
- Category
- Color
- Size
- Price
- Quantity
- TotalAmount

1..* (Customers to Sales)
1..* (Employees to Sales)
1..* (Inventory to Sales)