

## **COMPUTING SKILLS -434S2B**

### **CASE STUDY**

#### **Inventory and Operations Management System for SMART MART Using MS Access**

Smart Mart is a rapidly growing medium-sized retail supermarket located in a metropolitan city. As its customer base expanded, the store began dealing with hundreds of products sourced from multiple suppliers across different departments such as Groceries, Household Items, Personal Care, Frozen Foods, and Stationery. Initially, the store used Excel spreadsheets to manage its inventory and sales records. However, as business transactions increased, the limitations of Excel—such as duplicate entries, difficulty in maintaining relationships between records, and lack of structured reporting—became evident.

To overcome these challenges, Smart Mart decided to build a comprehensive Inventory and Operations Management System using MS Access. MS Access was chosen because it is user-friendly, supports relational database design, allows fast query processing, and offers advanced reporting features suitable for small and medium enterprises without requiring high programming skills.

#### **Questions:**

1. Explains how Smart Mart created and implemented its database using MS Access through the following components: tables, queries, forms, reports, importing and exporting, customizing field properties, and generating managerial insights.
2. How did the relational structure of MS Access tables improve the accuracy and reliability of Smart Mart's inventory data?
2. Explain how query-based decision-making helped Smart Mart handle stock shortages and sales forecasting.
4. Discuss how customization features in MS Access improved user experience and operational efficiency at Smart Mart.