Use Case-1: Building a Cart Analysis for Myph

Objective: To analyze and design a data model for cart management in an online mobile-sales platform called Myph.

Description: Myph has launched a new range of mobile phones for the consumer market. To study customer behavior, a cart analysis system is developed. Each product contains details such as product name, title, description, stock quantity, and price. Products are categorized, and each category maintains its own document collection in a category tree structure. The system allows viewing all products under each category and performing cart analysis to identify customer preferences, surplus selections, and frequently bought combinations. The relational database supports the efficient retrieval of product and transaction data.

Observation: - The database should store information such as product details, stock levels, and pricing. - A cart model records customer selections and total costs. - Queries can be made to identify trends in consumer purchases. - Recovery mechanisms are included to restore cart data in case of system failure.

Result: A relational database-based cart analysis system is successfully designed to manage product data, analyze consumer selections, and ensure smooth cart recovery during online transactions.

CO/Skill Level: CO1 – CO5 / S3