**PRODUCT SALES ANALYSIS**

**Phase 1: Problem Definition and Design Thinking**

**Project Definition:**

 The project involves using IBM Cognos to analyze sales data and extract insights about top selling products, peak sales periods, and customer preferences. The objective is to help businesses improve inventory management and marketing strategies by understanding sales trends and customer behavior. This project includes defining analysis objectives, collecting sales data, designing relevant visualizations in IBM Cognos, and deriving actionable insights.

**Design Thinking:**

* 1. Analysis Objectives: The specific objectives of analyzing product sale analysis is used to identifying top-selling products, analyzing sales trends, and understanding customer preferences over various products sold at a store
  2. Data Collection: the dataset contains various details of products sold at a store. These types of datasets are studied to find out the patterns in the selling structure and profit earned from them. Data helps collecting sales data, including transaction records, product information, and customer demographics. The file is a .csv file with 12 columns including customer name, ordered, region, etc.
  3. Visualization Strategy: to visualize the insights using IBM Cognos to create interactive dashboards and reports to answer the problem statements like:

1.which is the top selling product?

2.how much profit is earned?

3.which product is most preferred by the customer?

Actionable Insights: Deriving insights from data analytics is crucial for guiding inventory management and market strategy in various ways:

• Demand Forecasting

• Inventory Optimization

• Seasonal Trends

• Supplier Performance

•Product performance