**Part 1 – Sales and Delivery**

**Problem Statement:**

A business organization operating in the 'sales and delivery' domain has accumulated composite data over the last decade. This data spans various dimensions such as customer information, market facts, orders, products, and shipping details. The organization is seeking actionable insights and solutions to improve its sales and delivery operations, optimize profitability, and enhance customer satisfaction.

**Data Description:**

**Cust\_dimen:** The Cust\_dimen table contains customer-related information for a business organization operating in the 'sales and delivery' domain. It includes the customer's name, province, region, and assigned customer segment. The Cust\_id column serves as a unique identifier for each customer in the dataset.

**Market Fact:** The Market Fact table provides a comprehensive overview of sales and delivery transactions. It includes essential information such as order, product, and shipping IDs, along with sales-related metrics like sales price, discounts, order quantity, and profitability. Additionally, shipping costs and product base margin details are captured, offering insights into the financial aspects of the business operations.

**Orders\_Dimen:** The Orders\_Dimen table captures essential order details, with the "Order id" serving as the integer identifier for each order. The "Order Date" column denotes the date the order was placed, while "Order Priority" indicates the priority assigned to each order. Additionally, the "Ord id" column, represented as varchar, corresponds to the order id in string format, facilitating data retrieval and integration with other tables.

**Prod\_Dimen:** The Prod\_Dimen table captures essential product information. The "Product\_Category" column denotes the general type of the product, while "Product\_Sub\_category" specifies its sub-category. The "Prod\_id" serves as a unique identifier for each product in the dataset.

**Shipping Dimen:** The "Shipping Dimen" table provides essential information related to order shipments. The "Order\_ID" column serves as a unique identifier for orders, while "Ship\_Mode" categorizes the type of shipping employed. The "Ship\_Date" records the date of shipping, and the "Ship\_ID" is a varchar representing the specific ID associated with each shipping record.