**Section A**

**Input\_Table: Sales\_orders**

1. Find the top 5 customers with the highest lifetime value (LTV), where LTV is calculated as the sum of their profits divided by the number of years they have been customer
2. Create a pivot table to show total sales by product category and sub-category.
3. Find the customer who has made the maximum number of orders in each category:
4. Find the top 3 products in each category based on their sales.
5. In the table Orders with columns OrderID, CustomerID, OrderDate, TotalAmount. You need to create a stored procedure Get\_Customer\_Orders that takes a CustomerID as input and returns a table with the following columns, you will need to create a function also that calculates the number of days between two dates.

OrderDate

TotalAmount

TotalOrders: The total number of orders made by the customer.

AvgAmount: The average total amount of orders made by the customer.

LastOrderDate: The date of the customer's most recent order.

DaysSinceLastOrder: The number of days since the customer's most recent order.

**Section B- Create a Dashboard with the below analysis (PowerBI /Tableau)**

**Analysis 1**: How do different product categories perform? Which categories are driving growth and profitability?

**Analysis 2:** How many orders are repeat orders versus new orders? What is the retention rate of repeat customers?

**Analysis 3:** What is the average profit margin for each product sub-category?

**Analysis 4:** What is the cumulative total of sales for each product sub-category over time?

**Analysis 5**: What is the trend in sales revenue over time? How do sales vary by month, quarter, or year?