**Assignment Part 2**

**Section A**

**Company - LearnVista Pvt Ltd.**

**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 customers.
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 Order ID, Customer ID, Order Date, Total Amount. You need to create a stored procedure Get\_Customer\_Orders that takes a Customer ID as input and returns a table with the following columns -

**Order Date**

**Total Amount**

**Total Orders** - The total number of orders made by the customer.

**Average Amount** - The average total amount of orders made by the customer.

**Last Order Date** - The date of the customer's most recent order.

**Days Since Last Order** - The number of days since the customer's most recent order.

(Create a function that calculates the number of days between two dates)

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

**Analysis1**: How do different product categories perform? Which categories are driving growth and profitability?

**Analysis2:** What is the retention rate of customers?

**Analysis3:** What is the average profit margin for each product sub-category?

**Analysis4:** What is the customer churn rate? How does it vary by customer segment or product category?

**Analysis5:** What is the cumulative total of sales for each product sub-category over time?

**Analysis 6**: What is the trend in sales revenue over time? How do sales vary by month, quarter, or year?