## **Assignment-4**

## **Unleashing Sales Insights: Exploring Business Analytics with Excel Formulas**

The problem for this assignment is focuses on analyzing sales data using Excel formulas for business analytics. You will work with a sales data set containing information such as customer names, product categories, quantities sold, sales amounts, costs, profits, and discounts. By applying various Excel formulas like nested IF, IFS, COUNTIFS, SUMIFS, and AVERAGEIFS, you will gain insights into the sales performance, identify top customers and products, analyze category-wise performance, and compare sales metrics. This assignment will enhance your skills in data analysis, Excel formulas, and interpreting business insights for effective decision-making. Get ready to dive into the world of sales analytics and uncover valuable trends and patterns in the data.

## SalesData Table

Customer Name	<b>Product Category</b>	Product Nam	Quantity Sold	Sales Amount	<b>Cost Price</b>	Profit	Discount
John	Electronics	TV	2	\$1,000	\$800	\$200	10%
Emma	Apparel	T-Shirt	5	\$100	\$50	\$50	0%
Mark	Home	Pillow	3	\$50	\$20	\$30	20%
Lisa	Electronics	Laptop	1	\$1,500	\$1,200	\$300	5%
John	Beauty	Perfume	2	\$200	\$150	\$50	0%
Emma	Apparel	Jeans	1	\$50	\$30	\$20	0%
Mark	Electronics	Smartphone	2	\$1,000	\$900	\$100	10%
Lisa	Home	Lamp	1	\$30	\$25	\$5	0%
John	Beauty	Lipstick	3	\$60	\$40	\$20	0%
Emma	Electronics	Headphones	1	\$100	\$80	\$20	0%
Mark	Home	Chair	2	\$200	\$150	\$50	0%
Lisa	Apparel	Dress	1	\$80	\$60	\$20	0%
John	Electronics	Tablet	2	\$500	\$400	\$100	10%
Emma	Beauty	Face Cream	3	\$90	\$70	\$20	0%
Mark	Home	Mirror	1	\$70	\$50	\$20	0%
Lisa	Apparel	Shoes	2	\$120	\$90	\$30	0%
John	Electronics	Camera	1	\$800	\$700	\$100	0%
Emma	Beauty	Mascara	1	\$30	\$20	\$10	0%
Mark	Home	Bed	1	\$500	\$400	\$100	0%
Lisa	Apparel	Trousers	2	\$60	\$40	\$20	0%

## Business Question:

Task 1: Total Sales Analysis

- a) Calculate the total sales amount for all products sold.
- b) Determine the total profit earned from the sales.
- c) Find the average sales amount per product.

Hint:SUM,AVERAGE

Task 2: Category-wise Analysis

- a) Calculate the total sales amount for each product category.
- b) Determine the total profit earned for each category.
- c) Find the average sales amount per product category.

Hint:SUMIF,AVERAGEIF

Task 3: Customer Analysis

- a) Identify the customer who made the highest purchase in terms of sales amount.
- b) Determine the customer who generated the highest profit.
- c) Find the customer with the highest number of purchases.

Hint:MAX,MAX(COUNTIF()),

Task 4: Conditional Analysis

- a) Calculate the total sales amount for the "Electronics" category.
- b) Determine the total profit earned from sales with a discount of 10% or higher.
- c) Find the average sales amount for products with a quantity sold greater than 2.

SUMIF, SUMIFS, AVERAGEIFS