

Excel Assignment Case Study

Case Study Scenario:

You are working as a Junior Data Analyst at 'TechGear Solutions', a retail tech company. Your manager has provided you with a dataset containing sales transactions from the year 2023. Each record contains details about the employee who made the sale, the product sold, quantity, unit price, region, and more.

Your task is to clean, analyze, and visualize the data using Excel tools to generate valuable insights for the sales and marketing team.

Assignment Tasks with Hints:

1. Basic Analysis

- Count total number of records. (Hint: COUNTA)
- Calculate average, min, and max Units Sold. (Hint: AVERAGE, MIN, MAX)
- Add a formula to calculate Total_Sale = Units_Sold * Unit_Price. (Hint: Arithmetic formula)

2. Conditional Formatting

- Highlight rows where Units_Sold > 40. (Hint: Conditional Formatting > New Rule)
- Use color scales to indicate Total_Sale performance.

3. Logical and Statistical Functions

- Classify sales as 'High' if Total_Sale > 20,000 else 'Low'. (Hint: IF)
- Count number of sales in the IT department. (Hint: COUNTIF)
- Find total sales per region. (Hint: SUMIF)

4. Text and Date Functions

- Extract month name from Date_of_Sale. (Hint: TEXT function)
- Create a column with Year. (Hint: YEAR function)

5. Lookup Functions

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- Find Unit_Price of a product using VLOOKUP.
- Get Department name using XLOOKUP based on Employee_ID.

6. Pivot Table & Charts

- Create a Pivot Table showing Total Sales by Region.
- Use Pivot to find average Units Sold per Department.
- Make a bar chart for Region-wise sales. (Hint: Insert > Chart)
- Create a line chart showing Monthly Total Sales.

7. Advanced Task

- Find Top 5 Employees based on Total_Sale. (Hint: SORT & FILTER or Pivot Table)
- Identify product with highest average Unit_Price.
- Assign performance category:
 - > Excellent: >30,000
 - > Good: 20,000-30,000
 - > Needs Improvement: <20,000 (Hint: Nested IFs)