**Case Study 1: Sales Data Analysis**

**Tasks:**

1. Find total revenue for each region using a Pivot Table.
2. Calculate the total sales made by each Sales Rep using SUMIFS().
3. Create a bar chart to compare total revenue by region.
4. Highlight the top 5 highest sales transactions using Conditional Formatting.

**Case Study 2: Customer Churn Analysis**

**Tasks:**

1. Calculate the number of active and churned customers using COUNTIFS().
2. Find the average Monthly Plan value for churned customers using AVERAGEIFS().
3. Identify customers who haven't used the service in the last 6 months using IF() and TODAY().
4. Create a Pie Chart to show the proportion of Active vs. Churned customers

**Case Study 3: Employee Performance Dashboard**

**Tasks:**

1. **Calculate Efficiency (%) using the formula:**

= (Tasks Completed / Hours Worked) \* 100

1. **Find the top-performing employee using LARGE() and INDEX().**
2. **Use Conditional Formatting to highlight employees with efficiency above 30%.**
3. **Create a dynamic dashboard using a Pivot Table and Slicers.**

**1. Excel Formula Challenge:**

**Task:** Write a formula to find the **third highest revenue** in a sales dataset.  
**Hint:** Use LARGE() function.

=LARGE(Revenue\_Column, 3)

**2. Data Cleaning Challenge:**

You receive messy data with inconsistent text formatting:

* Some names are in lowercase, some in uppercase.
* Some cells contain extra spaces.
* Some phone numbers have dashes, while others don’t.

**Task:** Clean the data using Excel functions like:

excel

CopyEdit

=PROPER(A2) ' Fixes capitalization

=TRIM(B2) ' Removes extra spaces

=SUBSTITUTE(C2, "-", "") ' Removes dashes