**EXCEL ASSIGNMENT: TechGear Electronics – Sales Analysis**

**Scenario:**

You are working as a data analyst at **TechGear Electronics**, a company that sells gadgets. You have received sales data for the first quarter of the year and need to perform the following tasks in Excel.

**TASK 1: Create Named Ranges**

* Create a **named range** called Units for the "Units Sold" column.
* Create another named range called Prices for the "Unit Price" column.

**TASK 2: Add a Calculated Column**

* Add a column **Total Sales** that calculates:  
  Total Sales = Units Sold × Unit Price

**TASK 3: Format as Table**

* Format the entire dataset as an Excel Table.
* Name the table as SalesData.
* Use a table style of your choice.

**TASK 4: Use Functions**

1. Use the =SUM() function to find:
   * Total Units Sold
   * Total Revenue (Total Sales)
2. Use the =MAX() and =MIN() functions to find:
   * Highest & lowest Unit Price
   * Highest & lowest Total Sales

**TASK 5: Apply IF Condition**

* Create a column called **Performance Category**.
* Use the formula:

=IF([@Total Sales] > 400000, "High Performer", "Needs Improvement")

**TASK 6: Consolidate Function (Across Sheets)**

* Go to the file’s sheets January, February, and March.
* Create a new sheet called **Consolidated**.
* Use the **Data → Consolidate** feature:
  + Function: **Sum**
  + Consolidate **Units Sold** and **Total Sales**
  + Use **Top row and Left column** as labels
* This will give you a total summary across months.

**TASK 7: Create Monthly Sales Charts**

Your task is to visualize Total Sales for each **Product Category** separately for the months of **January**, **February**, and **March**.

1. Go to each sheet: January, February, March.
2. Select the two columns: Product Category and Total Sales.
3. Insert a **Column Chart** for each sheet:
   * Go to **Insert → Charts → Column → Clustered Column**
   * Add **Chart Title**:
     + January: Total Sales by Category - January
     + February: Total Sales by Category - February
     + March: Total Sales by Category - March
   * Add **Data Labels** for clarity.
   * Format axes for better readability.
4. Right-click on the chart → **Move Chart to New Sheet** to make it more visible.

**BONUS TASK: Understanding INDIRECT with Cell References**

**Task: Use INDIRECT to Fetch a Value Based on a Cell Address**

1. In the **January** sheet, go to a blank area (e.g., cell **J2**).
2. In **cell J2**, enter the text:

E4

(This is the address of a cell that contains the **Unit Price** of "MacBook Air").

1. In **cell J3**, enter this formula:

=INDIRECT(J2)

1. The result should show the value from cell E4 — which is the **Unit Price** for that row.

* INDIRECT(J2) reads the text "E4" and fetches the value from cell E4.
* This teaches them that **INDIRECT can turn text into a live reference**.
* You can then change J2 to "F5", "G6", etc., and see the referenced value change dynamically.

## **What is the INDIRECT Function in Excel?**

### Definition:

The INDIRECT function returns the value of a **cell reference given as text**.

### Why Use It?

It helps you create **dynamic references** — for example, you can use the contents of one cell to point to another cell or even to a different worksheet.

### Basic Example:

### Suppose:

* Cell A1 contains: C5
* Cell C5 contains: 100

Then:

=INDIRECT(A1)

will return **100**, because it interprets A1’s content (C5) as a **cell address**.

### Where It’s Useful:

* Pulling data from different sheets based on user input
* Creating flexible formulas that adjust automatically
* Referring to named ranges or indirect addresses