**Excel practice Questions**

Dataset link: [salesdatasets.xlsx](https://docs.google.com/spreadsheets/d/1Ia5LCxhjiIHeuHIA_DNVFD4CJCIba4HR/edit?usp=sharing&ouid=103845143371951569885&rtpof=true&sd=true)

The dataset contains information about a retail store's sales transactions over a period of time.

| **Transaction ID** | **Date** | **Product** | **Category** | **Quantity** | **Unit Price** | **Total Amount** | **Customer Name** | **Region** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2023-01-01 | Laptop | Electronics | 2 | 800 | 1600 | John Doe | North |
| 2 | 2023-01-02 | Smartphone | Electronics | 3 | 500 | 1500 | Jane Smith | South |
| 3 | 2023-01-03 | Tablet | Electronics | 1 | 300 | 300 | James Brown | East |
| 4 | 2023-01-04 | TV | Electronics | 1 | 1200 | 1200 | Emily Johnson | West |
| ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 97 | 2023-04-07 | Mouse | Electronics | 2 | 20 | 40 | Emma White | South |
| 98 | 2023-04-08 | Laptop | Electronics | 1 | 800 | 800 | Olivia Garcia | East |
| 99 | 2023-04-09 | Smartphone | Electronics | 4 | 500 | 2000 | Daniel Wilson | West |
| 100 | 2023-04-10 | Headphones | Electronics | 3 | 50 | 150 | Sophia Brown | North |

**To solve any question use excel any concepts like pivot table, sorting ,filtering etc.**

Basic Excel Concepts:

1. Calculate the total revenue generated from all transactions.
2. Find the average unit price of the products sold.
3. Determine the total number of transactions.
4. Calculate the total quantity of products sold.
5. Find the maximum and minimum total amount of a single transaction.

Basic Excel Concepts 2:

1. How many transactions were made in each region?
2. What is the average quantity of products sold per transaction?
3. Which product category generated the highest total revenue?
4. Who is the top customer based on the total amount spent?

Advanced Excel Concepts 1:

1. Create a pivot table to analyze total revenue by month.
2. Use the SUMIFS function to calculate the total revenue generated from transactions in the North region for a specific month.
3. Implement a data validation drop-down list for selecting a customer name and display their total amount spent.
4. Use the INDEX-MATCH function combination to find the unit price of a specific product.
5. Create a dynamic named range for the dataset and use it to create charts showing revenue trends over time.

Advanced Excel Concepts 2:

1. Use conditional formatting to highlight transactions with a total amount greater than $1000.
2. Create a pivot table to analyze total revenue by product category.
3. Use the VLOOKUP function to find the region of a customer based on their name.
4. Use the SUMIF function to calculate the total revenue generated from transactions in the North region.
5. Use the IFERROR function to handle errors in a formula that calculates the average unit price per transaction.

Real-world Data Analyst Questions:

1. **Sales Performance Analysis:**
   * What is the total revenue generated by the store during the observed period?
   * Can you provide a breakdown of revenue by product category?
   * How does the revenue trend over time (e.g., monthly or quarterly)?
2. **Customer Insights:**
   * Who are the top 10 customers based on total spending?
   * Can you identify any patterns or trends in customer purchasing behavior?
   * Are there any loyal customers who frequently make purchases?
3. **Product Analysis:**
   * Which products are the best-sellers?
   * Are there any products with declining sales trends that need attention?
   * Can you analyze the profitability of each product?
4. **Regional Analysis:**
   * How does sales performance vary across different regions?
   * Are there any regional differences in product preferences?
   * Can you identify any opportunities for expansion based on regional performance?

**OPTIONAL QUESTION If YOU DO WELL AND GOOD**

1. **Inventory Management:**
   * Is there a correlation between product availability and sales?
   * Can you identify any products that frequently go out of stock?
   * How can inventory management be optimized to minimize stockouts and overstock situations?
2. **Customer Segmentation:**
   * Can you segment customers based on their purchasing behavior or demographics?
   * What are the characteristics of high-value customers?
   * How can marketing strategies be tailored to different customer segments?
3. **Forecasting and Predictive Analysis:**
   * Can you forecast future sales based on historical data?
   * Are there any seasonal trends that need to be accounted for in sales forecasts?
   * How accurate are the sales forecasts, and how can they be improved?