Excel Sales Data Analysis Project Instructions

# 1. Data Transformation

Begin by ensuring that the raw data is in a usable format for analysis. Format the 'sales\_date' field into a proper date format so that Excel can handle it in calculations and analysis. Verify that 'sales\_value' and 'sales\_quantity' are numeric. If necessary, use Excel’s \*VALUE() function to convert any improperly formatted data. Identify any missing or invalid data entries and handle them by either filling them in if possible or removing the affected rows. Ensure that your data is clean and structured in a way that allows for efficient analysis.

# 2. Statistical Analysis

Once the data is clean, calculate basic statistics that provide an overview of the dataset:  
- Total Sales Value: Sum the values in the 'sales\_value' column to get the overall sales revenue.  
- Average Sales Value: Calculate the average sales amount to understand the typical value of a sale.  
- Total Quantity Sold: Sum the 'sales\_quantity' column to understand how many products were sold in total.  
- Average Quantity Sold: Calculate the average quantity sold to see typical sales volume per transaction.  
These calculations give a high-level view of the performance, both in terms of revenue and units sold.

# 3. Data Analysis

Now, focus on more granular analysis to uncover trends and patterns:  
- Sales by Region: Group the data by 'sales\_region' and calculate the total sales value and quantity sold for each region.  
- Sales by Channel: Group by 'sales\_channel' (e.g., Direct Sales, Distributor) to see how each sales channel is performing.  
- Sales by Salesperson: Evaluate the performance of individual salespeople by grouping the data by 'salesperson\_id' and calculating total sales and quantities sold per salesperson.  
This analysis will help you understand which regions, channels, and salespeople are the most successful, and where there might be room for improvement.

# 4. Data Visualization (Dashboard)

To make the data insights more accessible, you will create a dashboard that visualizes key metrics:  
- Bar Charts: Use bar charts to compare total sales values by region, sales channel, and salesperson. This will help highlight the biggest contributors to sales.  
- Trend Charts: Plot the data over time to identify trends, such as rising or falling sales in certain periods.  
- Pie Charts: Use pie charts to show how sales are distributed by channel or region, helping to visualize the market share and areas of focus.  
The visual dashboard is crucial for providing clear and concise insights that are easy to interpret for stakeholders.

# 5. Conclusion

Summarize the key findings from your analysis and dashboard:  
- Highlight the top-performing regions, sales channels, and salespeople.  
- Identify trends or areas that might require further attention, such as underperforming regions or channels.  
- Make data-driven recommendations based on your findings, such as focusing on a high-performing region or investing in a particular sales channel.  
By following these instructions, you'll gain valuable insights from the sales data, visualize key performance metrics, and be prepared to make informed decisions based on the analysis.

# 6. Submission Instructions

After completing the project, please submit your Excel file on GitHub. Ensure your GitHub repository contains all the necessary files and that your work is well-documented. Include a brief description of the steps you took and the insights derived from your analysis. Submit the link to your GitHub repository in the project submission form.