Please adhere to the following instructions:-

**Dataset: Please fetch the dataset from the attached file in this email or download it from** [**here!**](https://github.com/monika-4dec/Data-Visualization-using-Power-BI/tree/main/Pizza%20Sales%20Report%20Data)

**Objectives:**

* Load and clean the datasets in Power BI.
* Create relationships between the datasets.
* Create new measures and quick measures using DAX.
* Visualize the sales performance against targets.
* Analyze the data to gain insights into branch performance and manager efficiency.

**Steps:**

1. **Load Data into Power BI:**
   * Open Power BI Desktop.
   * Load the datasets: Branch Data, Daily Sales Target, Sales Data, and Target Data.
   * Ensure that the datasets are correctly imported and visible in the Data view.
2. **Data Cleaning and Transformation:**
   * In the Power Query Editor, check for and handle any missing values or duplicates in each dataset.
   * Format the Date column in the Sales Data dataset to ensure it's recognized as a date type.
   * Create a new column in the Sales Data table to extract the day from the Date column (optional, if needed for analysis).
3. **Create Relationships:**
   * Go to the Model view.
   * Create relationships between the datasets:
     + Connect Branch in the Sales Data table to Branch in the Branch Data table.
     + Connect Pizza Type in the Sales Data table to Pizza in the Target Data table.
     + Connect Date in the Sales Data table to Day in the Daily Sales Target table.
4. **Create New Measures using DAX:**
   * **Total Sales:**
   * **Total Quantity Sold:**
   * **Average Sales per Day:**
   * **Sales Target Achievement (%):**
   * **Total Sales by Manager:**
   * **Sales Variance from Target:**
5. **Create Quick Measures:**
   * **Year-to-Date Sales:**
     + Right-click on the Sales Data table and select "New Quick Measure."
     + Choose "Year-to-date total" as the calculation.
     + Set the base value to Price and the date value to Date.
   * **Total Sales Last Year:**
     + Right-click on the Sales Data table and select "New Quick Measure."
     + Choose "Total sales last year" as the calculation.
     + Set the base value to Price and the date value to Date.
6. **Visualizations:**
   * **Branch Performance Dashboard:**
     + Create a table visual showing Branch, Manager, and Manager Location from the Branch Data table.
     + Add a bar chart to show the total sales by each branch using Branch and the new measure [Total Sales].
   * **Daily Sales Target:**
     + Create a line chart to compare the daily sales against the daily targets. Use Date from the Sales Data table, the new measure [Total Sales] for sales, and Target from the Daily Sales Target table.
   * **Pizza Sales vs. Target:**
     + Create a clustered column chart to show the sales quantity for each pizza type against the sales target. Use Pizza Type from the Sales Data table, the new measure [Total Quantity Sold], and Sales Target from the Target Data table.
   * **Time Analysis:**
     + Create a pie chart or donut chart to show the distribution of sales across different time ranges using Time Range and the new measure [Total Sales].
7. **Analysis and Insights:**
   * Add cards to display key metrics such as [Total Sales], [Total Quantity Sold], and [Average Sales per Day].
   * Use slicers to filter data by Branch, Manager, and Pizza Type to analyze specific segments of the data.
   * Create a matrix visual to show the sales performance of each branch by manager.
8. **Formatting and Customization:**
   * Customize the visuals with appropriate titles, labels, and colors for better readability.
   * Ensure the dashboard is user-friendly and interactive by enabling drill-throughs and tooltips.
9. **Publish and Share:**
   * Save your Power BI report.
   * Publish the report to the Power BI Service.

**Deliverables:**

* Please share Power BI report file (.pbix) containing the cleaned data, relationships, new measures, and visualizations **latest by 2:30 PM today**.
* A dashboard summarizing key insights and performance metrics.

By completing this exercise, you will gain hands-on experience with data loading, transformation, DAX measures, quick measures, visualization, and analysis using Power BI.

* Please let me know, if you have any questions.