**Project: Website Traffic Data Analysis**

You'll explore and analyze website visit data using pandas, seaborn, and matplotlib.

**Step-by-Step Instructions**

**Step 1: Set Up Your Environment**

1. **Download and unzip the file:  
    web\_traffic\_analysis\_project.zip**
2. **Open the web\_traffic\_analysis.ipynb notebook using:**
   * **Jupyter Notebook**
   * **Google Colab**
   * **VS Code with Jupyter extension**
3. **Make sure the following libraries are installed**
4. **pandas matplotlib seaborn**

**Step 2: Import Libraries & Load Data**

**This loads your CSV file and converts the Date column to datetime format.**

**Step 3: Understand the Dataset**

Check:

* Number of rows and columns
* Data types
* Summary statistics (mean, min, max)

**Step 4: Session Duration by Device**

**Use a boxplot to compare session durations across different devices:**

**Goal: See which devices (Mobile/Desktop/Tablet) have longer average session times.**

**Step 5: Pages Visited by User Type**

**Use a bar chart to compare how many pages were visited by new vs returning users:**

**Goal: Analyze whether returning users are more engaged.**

**Step 6: Trend Over Time: Average Session Duration**

**Group data by date and analyze daily trends:**

**Goal: Observe if average session duration is increasing or decreasing over time.**

**Step 7: (Optional) Add More Insights**

**If you'd like to go a bit further:**

* **Add pie charts for device usage distribution**
* **Compare average pages visited by device**
* **Find peak traffic days (based on number of visits)**

**Step 8: Write a Conclusion**

**At the end of the notebook, add a Markdown cell with your summary:**

* **Which device performs better?**
* **Are new or returning users more engaged?**
* **Any noticeable trends over time?**