Project Title: "Analyzing Student Performance Data"

Project Questions

1. **Data Collection**:
    - What data will you collect? (e.g., exam scores or hours studied)
        1. Scores attained
        2. Subjects studied
        3. Hours studied
        4. Attendance record
    - How will you select your sample? Describe your sampling method.
        1. Choose a population of study i.e define the population e.g grade, subjects student form particular area etc.
        2. Determine sample size to represent the whole population
        3. Choose a sampling method e.g mean mode or median
    - How many students will you include in your sample?
      It will depend on purpose of the analysis, the population size or resources available.

2. **Data Organization**:
    - Create a table to display your data clearly, listing each student's score or hours studied.

Student	Maths Scores
Abby	69
Chalres	53
David	32
John	78
Leah	38

3. **Calculating Measures**:
    - For your sample data, calculate:
        - **Mean**: What is the average score/hours studied?
          54
        - **Median**: What is the middle value when the data is arranged in order?
          53
        - **Mode**: Which score/hours studied appears most frequently?
          0
    - What do these measures indicate about the data?

The average score of 54 means the performance is fair when measured out of 100

The range of 46 shows wide spread between highiest and lowest showing variability in performance

4. **Data Interpretation**:
    - What do the calculated measures tell you about your sample?

      The average score of 54 means the performance is fair when measured out of 100

      The range of 46 shows wide spread between highest and lowest showing variability in performance

    - Were there any outliers in your data? If so, how did they affect the mean and median?

    - How might the measures of central tendency differ if you collected data from the entire class instead of a sample?
5. **Conclusion**:
    - Summarize your key findings and insights based on your analysis.
    - Reflect on what you learned about data analysis and the importance of central tendency.

      Central tendency refers to how data tends to cluster around the central point.

      Its summary of the entire data.

Project Guidelines

1. **Data Collection**:
    - Use the following sample data for the project:
        - **Sample Data for Exam Scores** (out of 100):
            - 85, 90, 78, 88, 92, 70, 65, 95, 80, 75, 82, 84, 91, 89, 76
        - **Sample Data for Hours Studied** (per week):
            - 5, 10, 8, 6, 12, 4, 3, 9, 7, 11, 10, 5, 6, 8, 9
2. **Data Organization**:
    - Organize your data in a simple table format, listing the scores or hours studied for each student.
3. **Calculations**:
    - Show all calculations clearly, step by step, for mean, median, and mode.
    - Discuss how each measure is relevant to understanding the dataset.
4. **Report Writing**:
    - Write a brief report (1-2 pages) summarizing your findings, interpretations, and any patterns observed.
    - Include a section on what you learned about central tendency.
5. **Submission**:
    - Submit your report with calculations and findings by the project deadline.

Timeline

- **Submission**: 13/10/2024