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Course :- BCA (Cyber Security).

Module :- Foundations of Data Driven

Task 1:

Compute, Mean, Median and Standard deviation

Day	Sales
Mon.	1200
Tue.	1500
Wed	1100
Thu	1800
Fri	1700
Sat	1900
Sun	1300

Formulas

Mean :- Sum of all values / Total no. of values

Median = middle value (after sorting)

Standard deviation (SD) = $\sqrt{(\sum (x - \text{mean})^2) / n}$

Mean :- $(1200 + 1500 + 1100 + 1800 + 1700 + 1900 + 1300) / 7 = 1500$

Calculation

Median = 1500

SD ≈ 295.8

Result

Mean :- 1500

Median = 1500

SD = 295.8

Task 2:- Create 3 different charts

- 1 ■■ Bar chart - Daily sales:- Shows which day had the highest and lowest sales (Sat highest, wed lowest).
- 2 ■■ Histogram - Frequency of sales Range: Most sales fall between ■ 1300 - ■ 1900
- 3 ■■ Scatter plot :- Day vs sales :- Sales increase toward weekend.

Task 3 Reflection how visuals storytelling helps

- Make data easy to understandable and remember
- Charts and Graphs shows pattern faster than reading numbers.
- helps identify trends (like steady growth or sudden drops).
- useful for managers and team to make quick and confident decisions
- It turn raw data into clear story. "sales are increasing but June need attentions"

Example:-

instead of just saying "sales increased," the bar and line charts show how strongly they grew

That's the power of visualisation - it turns data into insight and action