NAME → Aryan Sharma

ROLL NO → 2501201020

COURSE → Foundations of data driven decision making

SECTION → 'C'

COURSE CODE → ETSEDD111

PROGRAMME → BCA (AI and DS)

SEMESTER → 1st

FACULTY → Mr. SATINDER SINGH PAL.

ASSIGNMENT-3

Task1: Using a sample dataset (sales, website, traffic or surveys) compute mean, median and standard deviation.

sample Dataset chosen:
(Daily sales for 10 days)

sales data:
1200, 1100, 1400, 1000, 900, 1500, 1700, 1600, 1300, 1800

* Mean (Average)
  sum of all values = 14500
  number of values = 10
  mean = 1450

* Median (sorted values)
  900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800
  median = average of 5th and 6th

$$= \frac{1300 + 1400}{2}$$

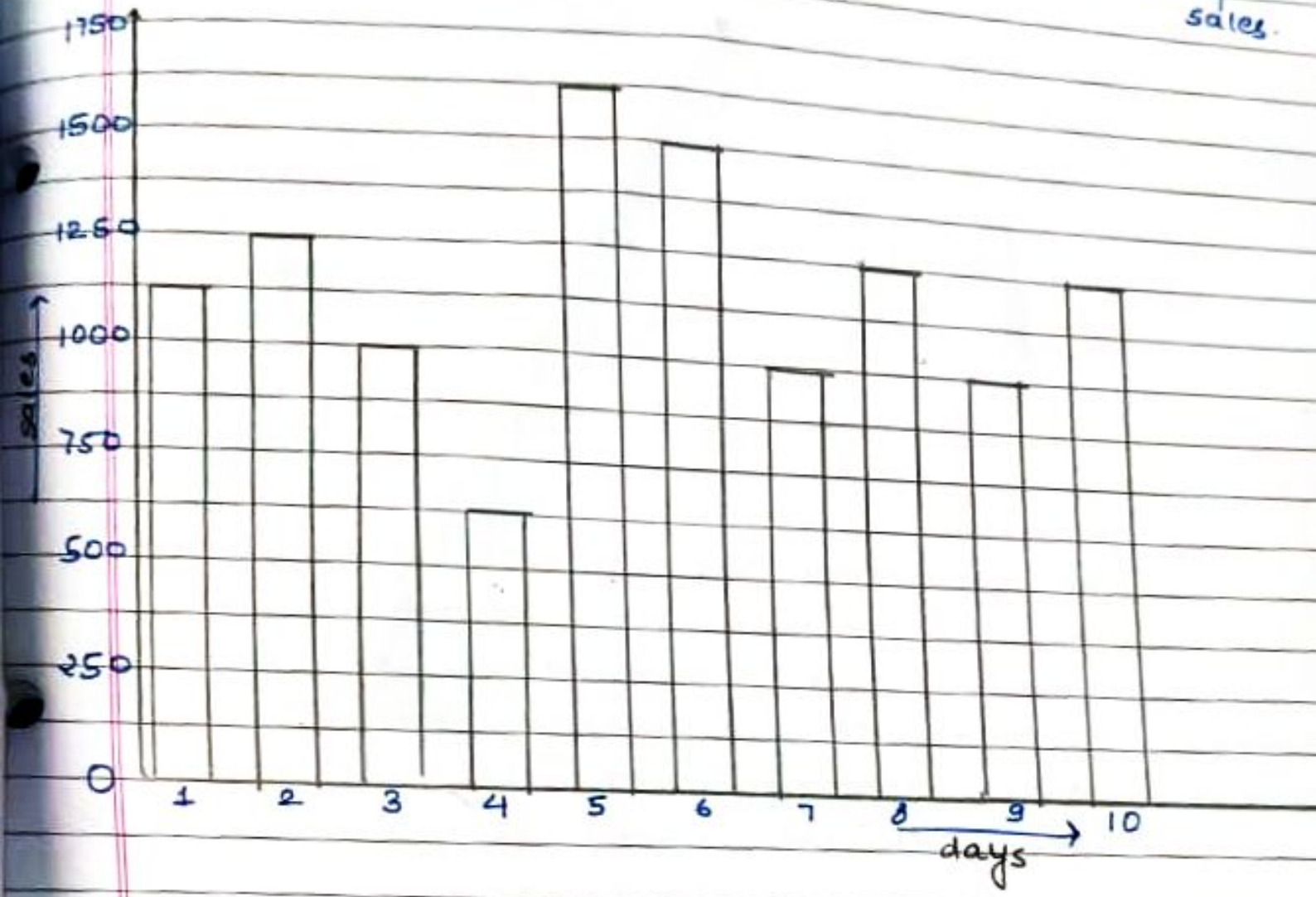
$$= 1350$$

Standard deviation
  standard deviation = 288.7.

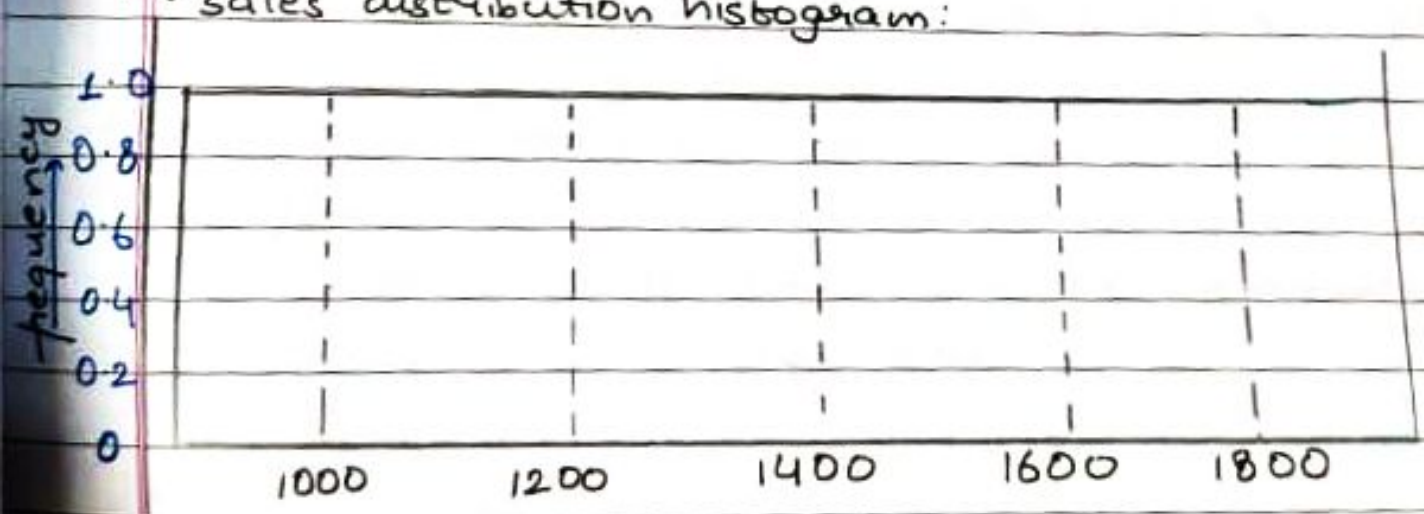
Task 2: Create at least 3 different charts (bar, histogram) to visualise data trends.

→ bar chart

each bar = daily sales.

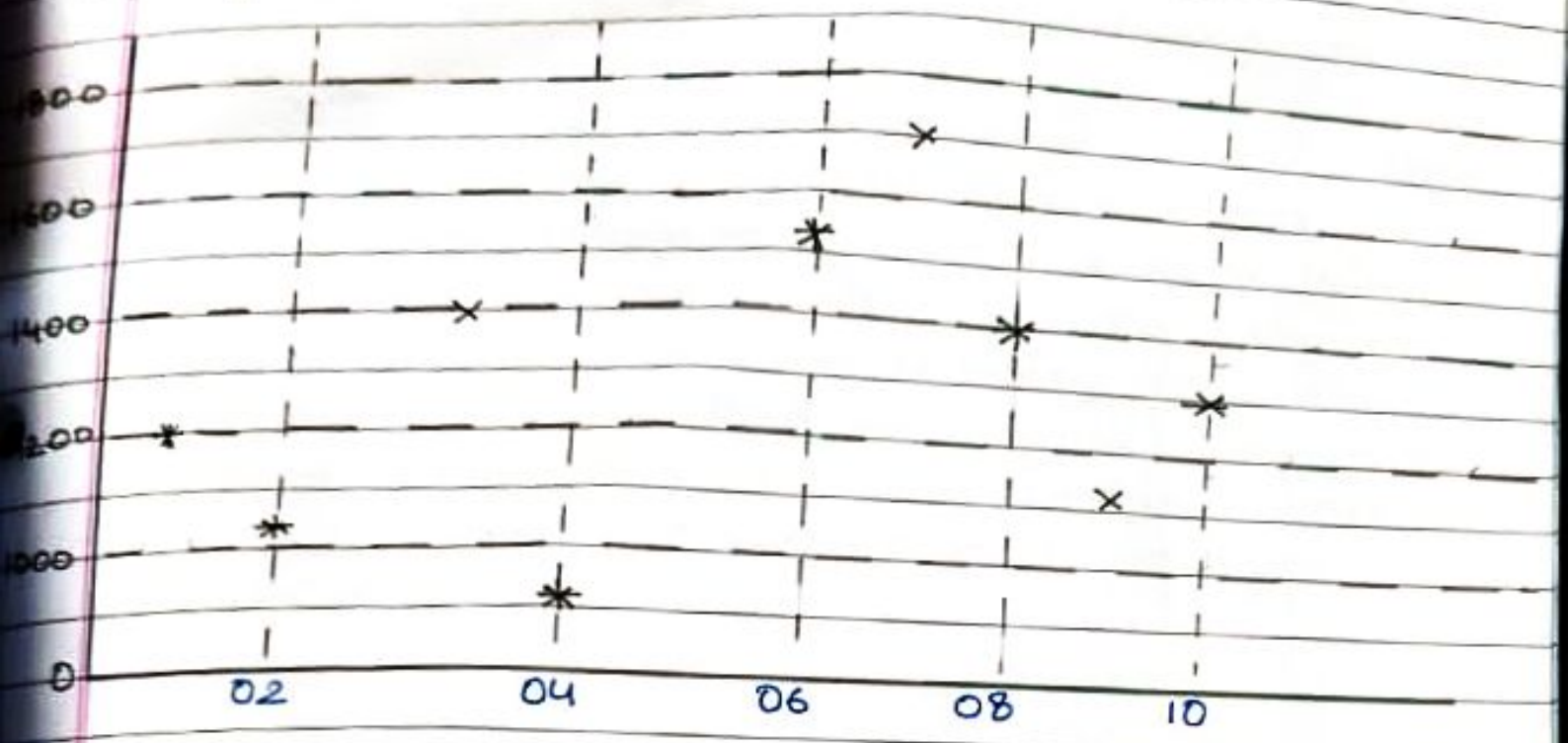


→ sales distribution histogram:



(3)

→ day vs scatter plot:



Task 3: Write 3-5 insights based on your visualization and explain what decision can be made from them.

→ sales trends upwards in the later days, suggesting improved customer engagement or marketing success.

→ sales mostly lie between 1100 and 1700, showing consistent performance

→ Last two day show peak sales (1600 and 1800) initiating high demand.

→ Early days have lower sales, suggesting weak initial activity.

→ the scater plot confirms a positive growth trends across the 10-day periods.

Task 4: Reflect on how visual storytelling enhance data interpretation.

Reflecting on how visual storytelling can enhance data interpretation by encouraging a deeper, more critical engagement with the underlying data and narrative, rather than relying solely on potentially misleading or overly simplistic visual representations. They make analysis easier to interpret, improve decision making, and understand stakeholders to make decision.