

# Visualization Task (seaborn Matplotlib)

## 1.

### A. Numerical Columns (Item\_price, connected\_handling\_time, CSAT Score)

1. "Show me the distribution of Item\_price." → *Histogram*
2. "How does CSAT Score vary overall?" → *Boxplot*
3. "What is the spread of connected\_handling\_time values?" → *Histogram + boxplot*
4. "Can I see a pie chart of CSAT scores by their value?" → *Pie chart*
5. "What are the most common price ranges for items?" → *Binned bar chart*

### B. Categorical Columns (channel\_name, category, Sub-category, Agent Shift, Tenure Bucket)

6. "How many tickets come from each channel\_name?" → *Bar chart*
7. "Which category has the highest number of tickets?" → *Bar chart (sorted)*
8. "Show me the distribution of tickets by Agent Shift." → *Pie chart*
9. "What are the top 10 Sub-category values?" → *Horizontal bar chart*
10. "How many tickets belong to each Tenure Bucket?" → *Bar chart*

## 2.

### A. Numerical vs Numerical

11. "Is there a relationship between Item\_price and CSAT Score?" → *Scatter plot*
12. "How does connected\_handling\_time affect CSAT Score?" → *Scatter plot + trend line*

13. “Show me density or clusters of Item\_price vs connected\_handling\_time.” → *Hexbin plot*

## **B. Numerical vs Categorical**

14. “What is the average CSAT Score per channel\_name?” → *Grouped bar chart*

15. “Show distribution of Item\_price per category.” → *Multiple boxplots*

16. “How does connected\_handling\_time vary by Agent Shift?” → *Boxplot*

17. “Show mean and variability of Item\_price across top 5 Product\_category.” → *Error bar plot*

18. “How do CSAT scores differ across Tenure Bucket?” → *Bar chart*

## **C. Categorical vs Categorical**

19. “Show the number of tickets by channel\_name and category together.” → *Stacked bar chart*

20. “How does Agent Shift distribution differ across category?” → *Stacked bar or grouped bar chart*

## **3.**

(Using order\_date\_time, Issue\_reported\_at, Survey\_response\_Date)

21. “How many tickets were created per day?” → *Line plot*

22. “Show daily trend of average CSAT Score.” → *Line plot (rolling average optional)*

23. “Plot number of issues reported weekly.” → *Bar chart (aggregated)*

24. “What is the monthly pattern of ticket volume?” → *Line plot with month aggregation*

25. “How does ticket volume differ by channel\_name over time?” → *Multi-line plot*

26. “Show the time lag between Issue\_reported\_at and issue\_responded.” → *Line or scatter plot (response time trend)*

27. “Show the volume of resolved issues over time.” → *Line plot*

28. “What is the peak hour or day for incoming tickets?” → *Bar chart (hourly/daily distribution)*

