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)*