1. Temporal and Operational Data

Question: What are the peak passenger hours by day and time?

Chart Type: Heatmap (Day vs. Hour with color intensity for passenger volume)

Question: How does bus frequency per hour affect the number of people waiting at each bus stop?

Chart Type: Line Chart or Scatter Plot (Frequency vs. Waiting Count)

Question: Which buses experience the most delays?

Chart Type: Bar Chart (Bus ID vs. Average Delay in minutes)

2. Environmental and External Conditions

Question: How does weather condition impact passenger waiting numbers?

Chart Type: Box Plot (Weather Condition vs. People Waiting) to show variability by condition

Question: What are the differences in passenger counts on holidays versus regular days?

Chart Type: Stacked Bar Chart (Holiday vs. Regular Day with Passenger Count)

Question: How does temperature relate to passenger numbers?

Chart Type: Scatter Plot (Temperature vs. People Waiting) with a trend line for correlation

3. Passenger and Stop-specific Factors

Question: How does population density around bus stops influence waiting passenger numbers?

Chart Type: Bubble Chart (Bus Stop ID vs. People Waiting, with bubble size for Population Density)

Question: Which bus stops have the highest average waiting times?

Chart Type: Horizontal Bar Chart (Bus Stop ID vs. Average Waiting Count)

4. Operational Efficiency and Performance

Question: What is the distribution of delays by time of day?

Chart Type: Violin Plot or Box Plot (Time vs. Bus Delay) to show delay trends

Question: How does the distance from the previous stop influence bus delays?

Chart Type: Scatter Plot (Distance from Previous Stop vs. Bus Delay) with trend line for correlation

Question: What are the total passenger counts by route segment?

Chart Type: Stacked Area Chart (Bus Stops along Route vs. Total Passenger Count)