Graph Objectives

# Correlation Heatmap

• Type: Heatmap  
• Goal: To identify relationships between key numerical variables like attendance rate and chronic absenteeism.  
• Insight: Discover any strong correlations between attendance-related variables and absenteeism.

# Histogram of Percentage Attendance

• Type: Histogram  
• Goal: To show the distribution and frequency of attendance rates across all students or schools.  
• Insight: Identify patterns, such as whether most attendance rates fall within a certain range or if there are extreme values.

# Line Plot of Average Attendance by Year

• Type: Line Plot  
• Goal: To observe how average attendance changed from 2016–17 to 2020–21.  
• Insight: Track year-over-year attendance trends and pinpoint any significant changes or drops, especially in response to external factors (like COVID-19).

# Bar Plot of Percentage Attendance by Grade

• Type: Bar Plot  
• Goal: To compare attendance rates across different grade levels.  
• Insight: Identify which grade levels have the highest and lowest attendance rates, highlighting any grade-specific patterns.

# Scatter Plot: Days Present vs Percentage Attendance

• Type: Scatter Plot  
• Goal: To visualize the relationship between total days present and attendance rate.  
• Insight: Analyze if a higher number of days present correlates with a higher attendance rate.

# Box Plot of Percentage Attendance by Grade

• Type: Whisker Plot (Box Plot)  
• Goal: To examine the variation and spread of attendance rates within each grade level.  
• Insight: Identify the distribution of attendance rates across grades, focusing on the spread (range, quartiles) and outliers (extremely low or high attendance rates).