

### **Matplotlib Questions**

1. Plot a histogram showing the distribution of hotel prices in Vienna using Matplotlib. What insights do you draw from the price distribution?
2. Create a scatter plot of hotel price versus distance from the city center. Is there a visible relationship between how far a hotel is from the center and its price?
3. Make a boxplot comparing hotel prices for different types of accommodations (e.g., Hotel, Apartment, Hostel, etc.). What accommodation type tends to be the most expensive?
4. Plot the trend of the average hotel price per month for the available years. Are there any noticeable seasonal patterns in the data?
5. Display a bar chart that shows the number of hotels by star rating. Which star rating is the most prevalent in Vienna according to the dataset?

### **Seaborn Questions**

1. Using Seaborn, create a violin plot to visualize the distribution of ratings for hotels grouped by accommodation type. What does this tell you about user satisfaction across accommodation types?
2. Create a heatmap to show the correlation matrix between numeric features such as price, distance, rating, and the number of nights booked. Which variables are strongly correlated?
3. Make a countplot showing the number of offers versus no offers for various neighborhoods. Do some neighborhoods tend to have more offers than others?
4. Plot a pairplot (scatterplot matrix) for the features price, rating, distance, and stars. What relationships do you observe among these variables?
5. Use Seaborn's boxenplot to compare the price distributions for weekends versus holidays. Which period tends to have higher prices?