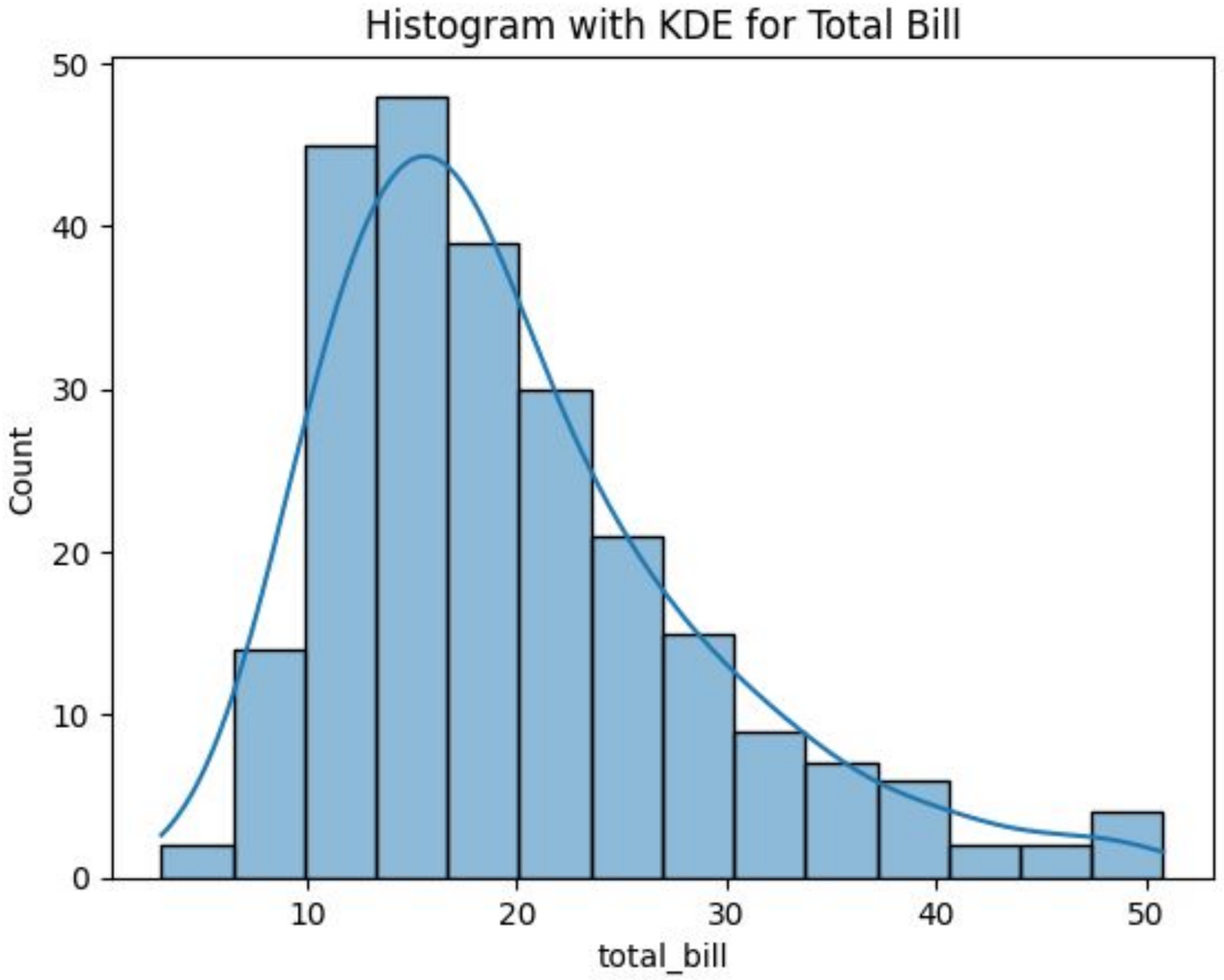
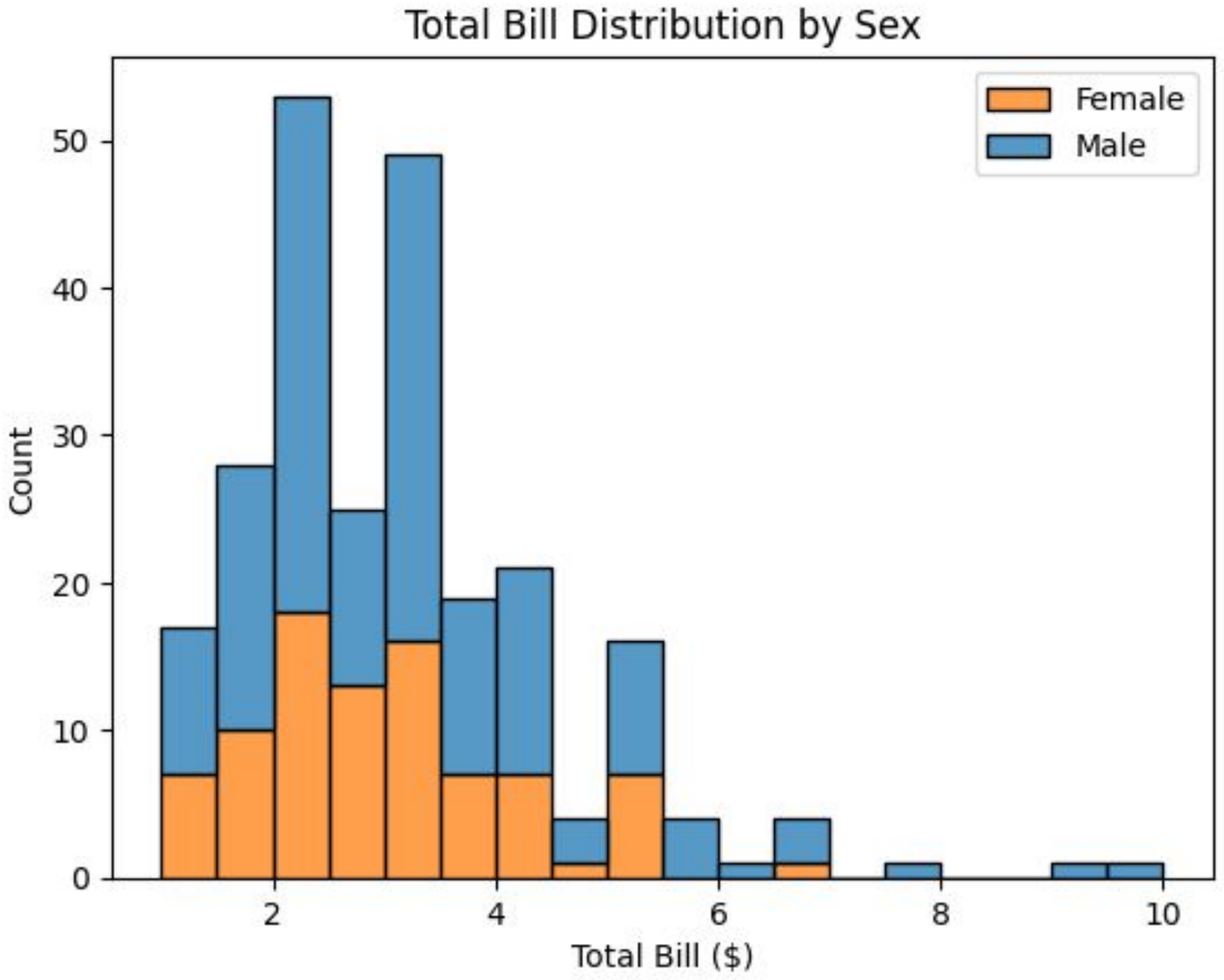
Exercise 1: Create histograms, KDE, and ECDF plots to explore distributions in the tips dataset.

Task: Generate a histogram of total_bill with 20 bins and a KDE overlay.



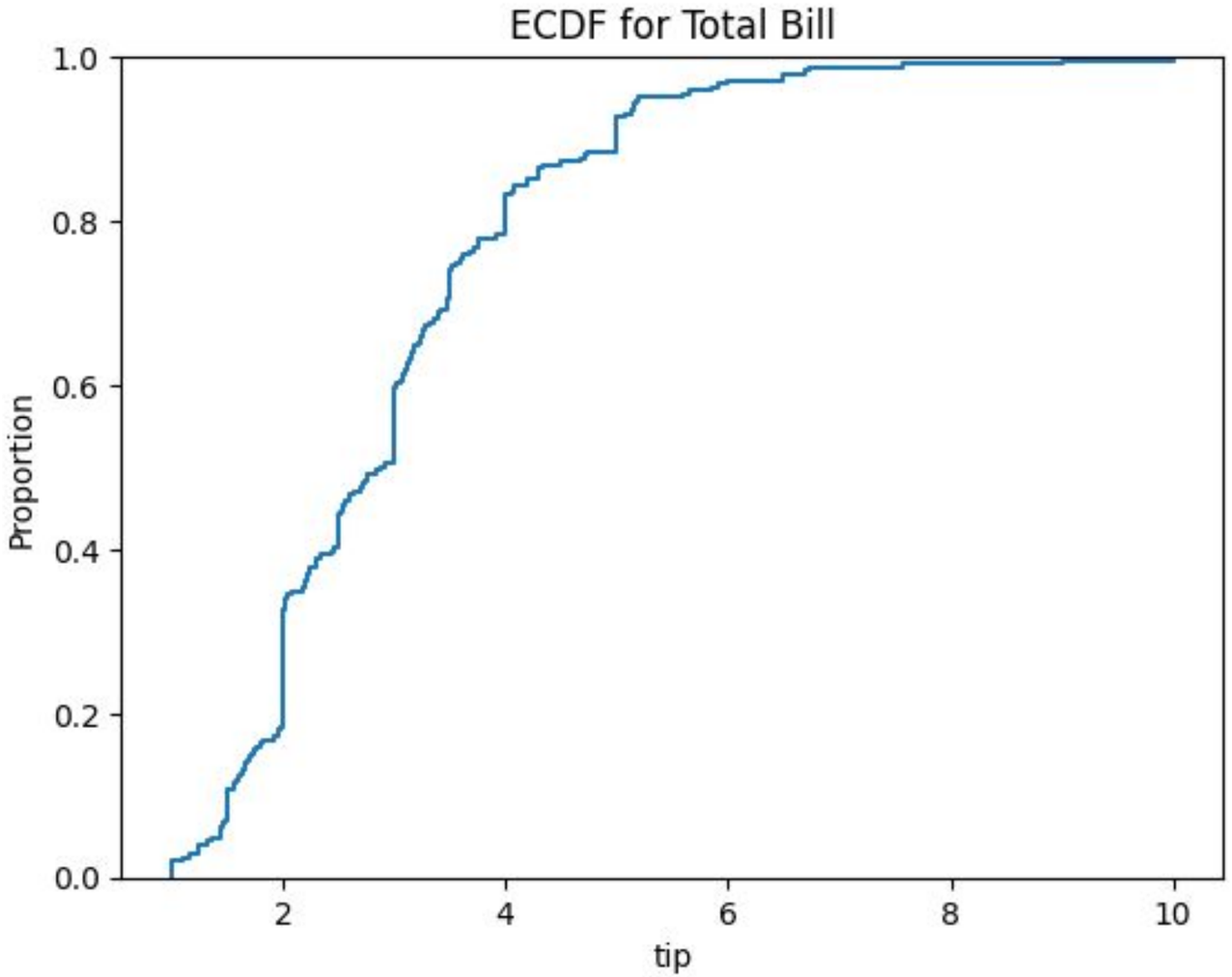
Exercise 1: Create histograms, KDE, and ECDF plots to explore distributions in the tips dataset.

Task: Plot a stacked histogram of total_bill grouped by sex using hue and multiple='stack'.



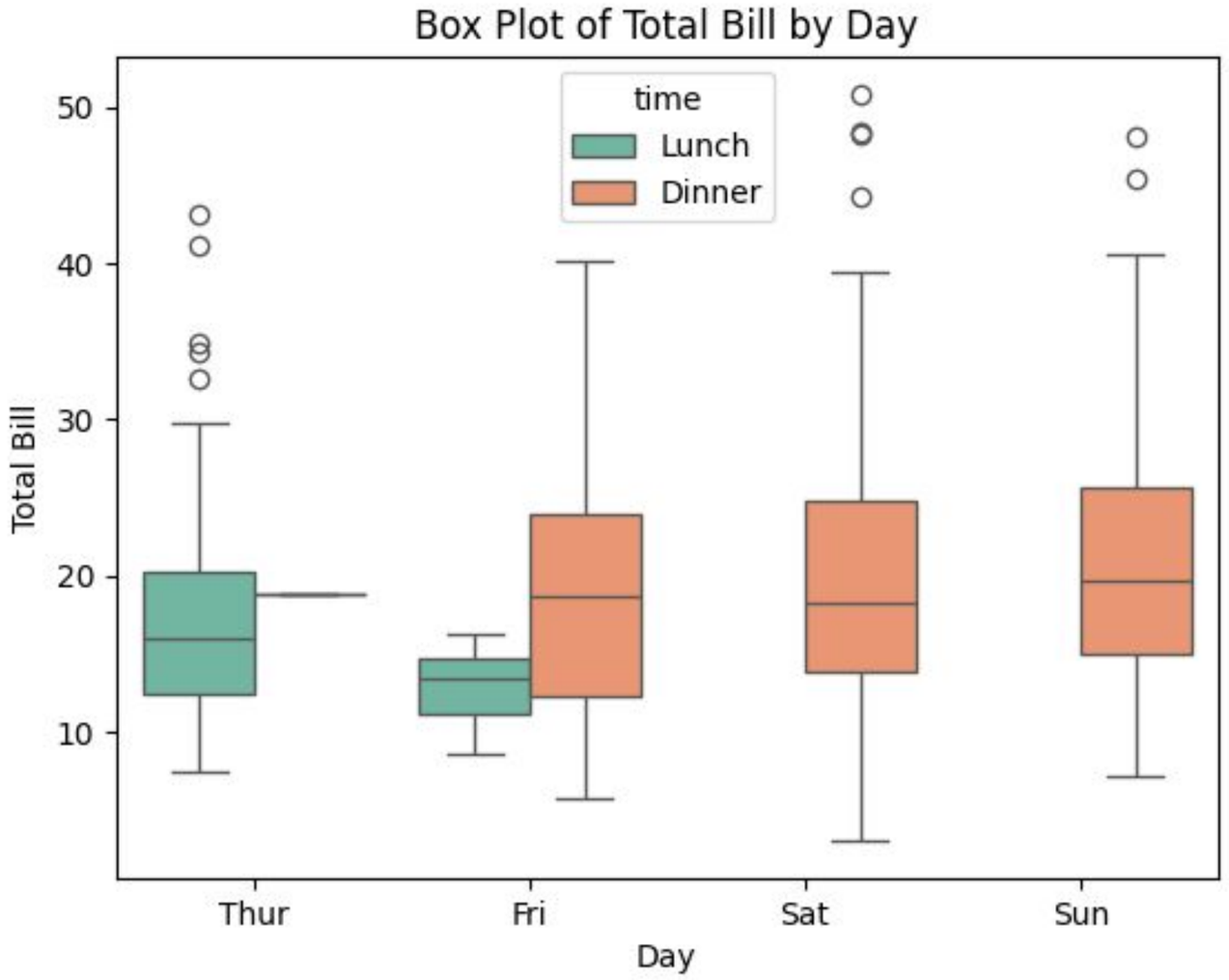
Exercise 1: Create histograms, KDE, and ECDF plots to explore distributions in the tips dataset.

Task: Create an ECDF plot for the tip column.



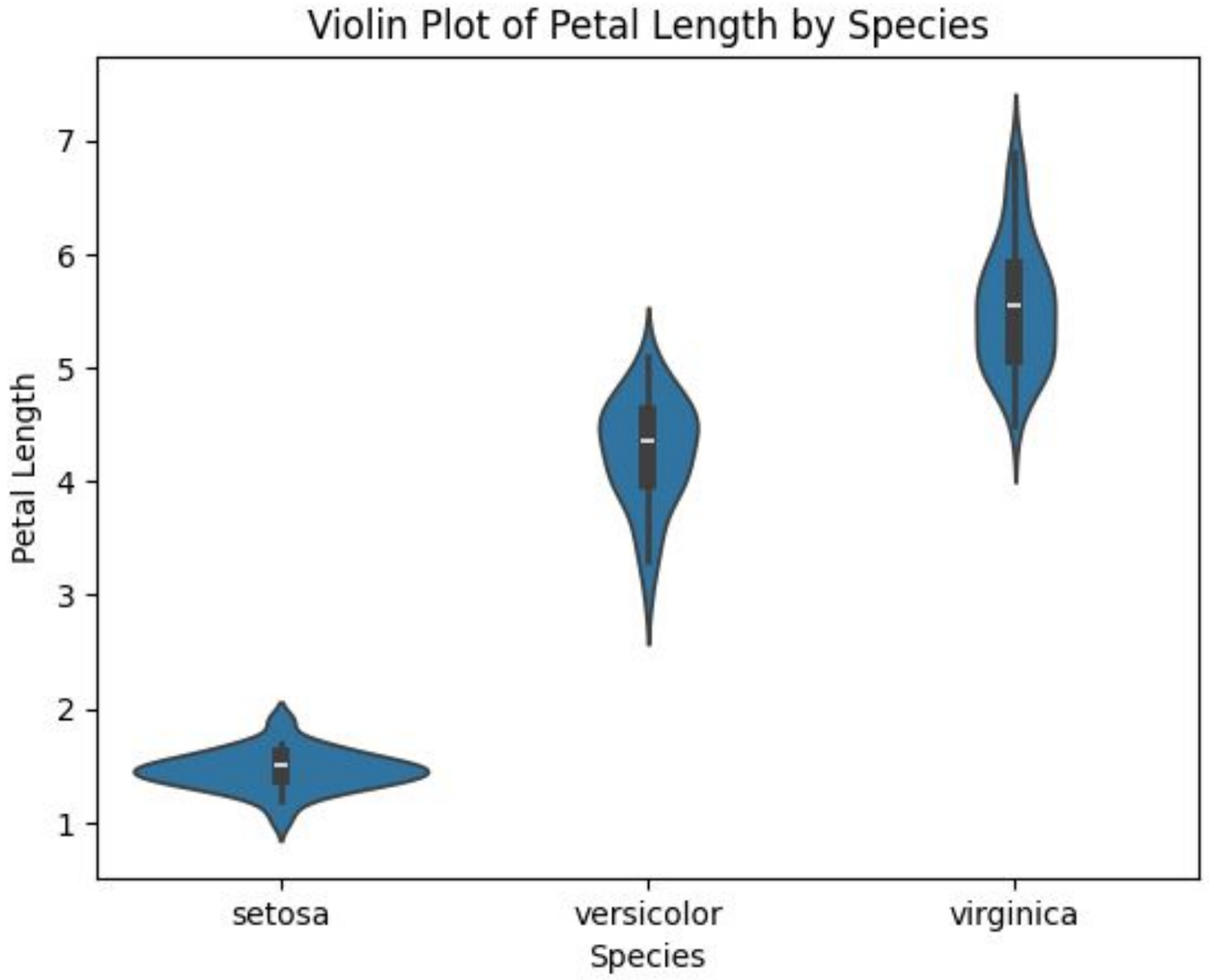
Exercise 2: Use box plots, violin plots, and count plots to analyze categorical relationships.

Task: Create a box plot of total_bill by day with hue='time'. Customize the palette and add axis labels.



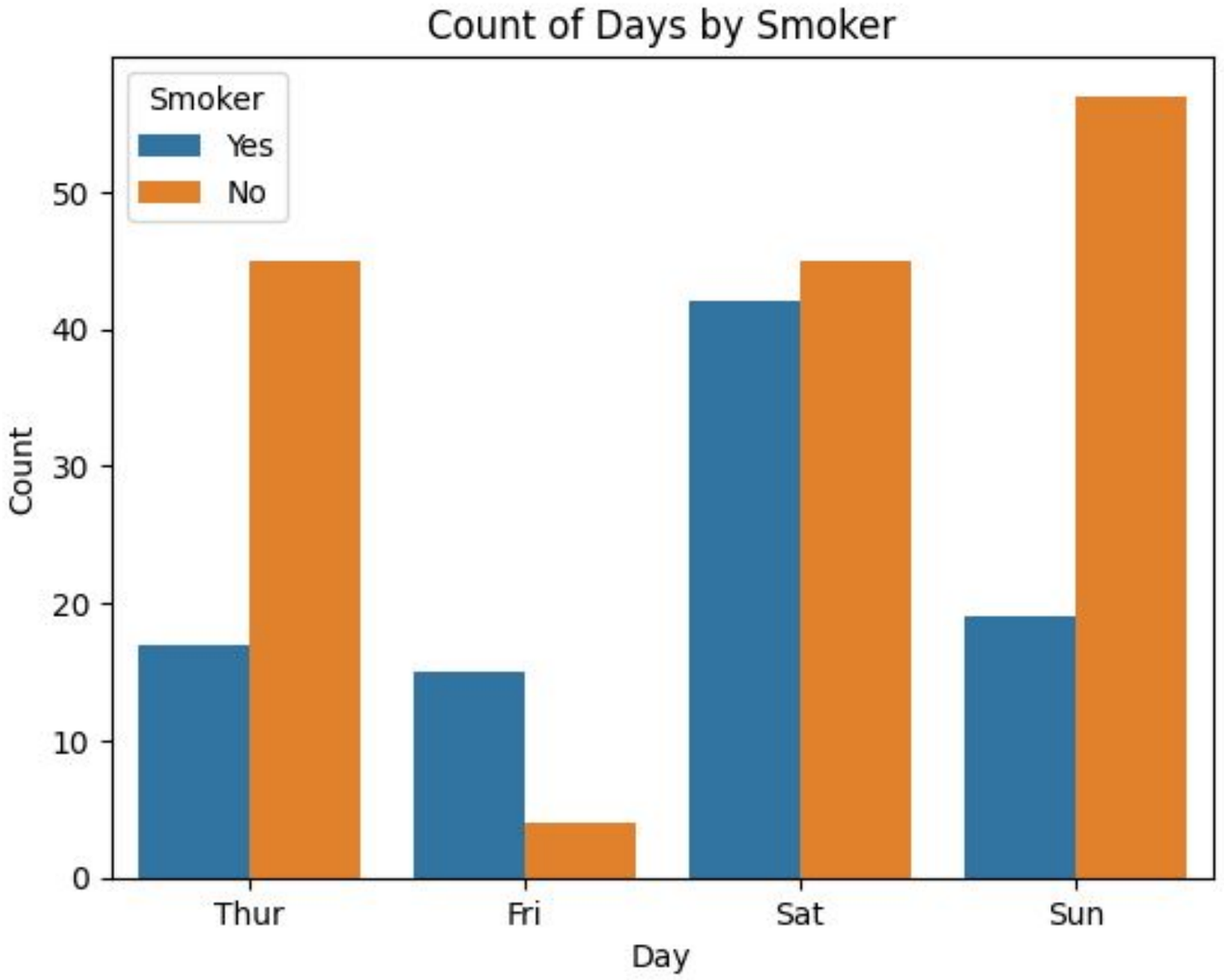
Exercise 2: Use box plots, violin plots, and count plots to analyze categorical relationships.

Task: Generate a violin plot for petal_length by species in the iris dataset.



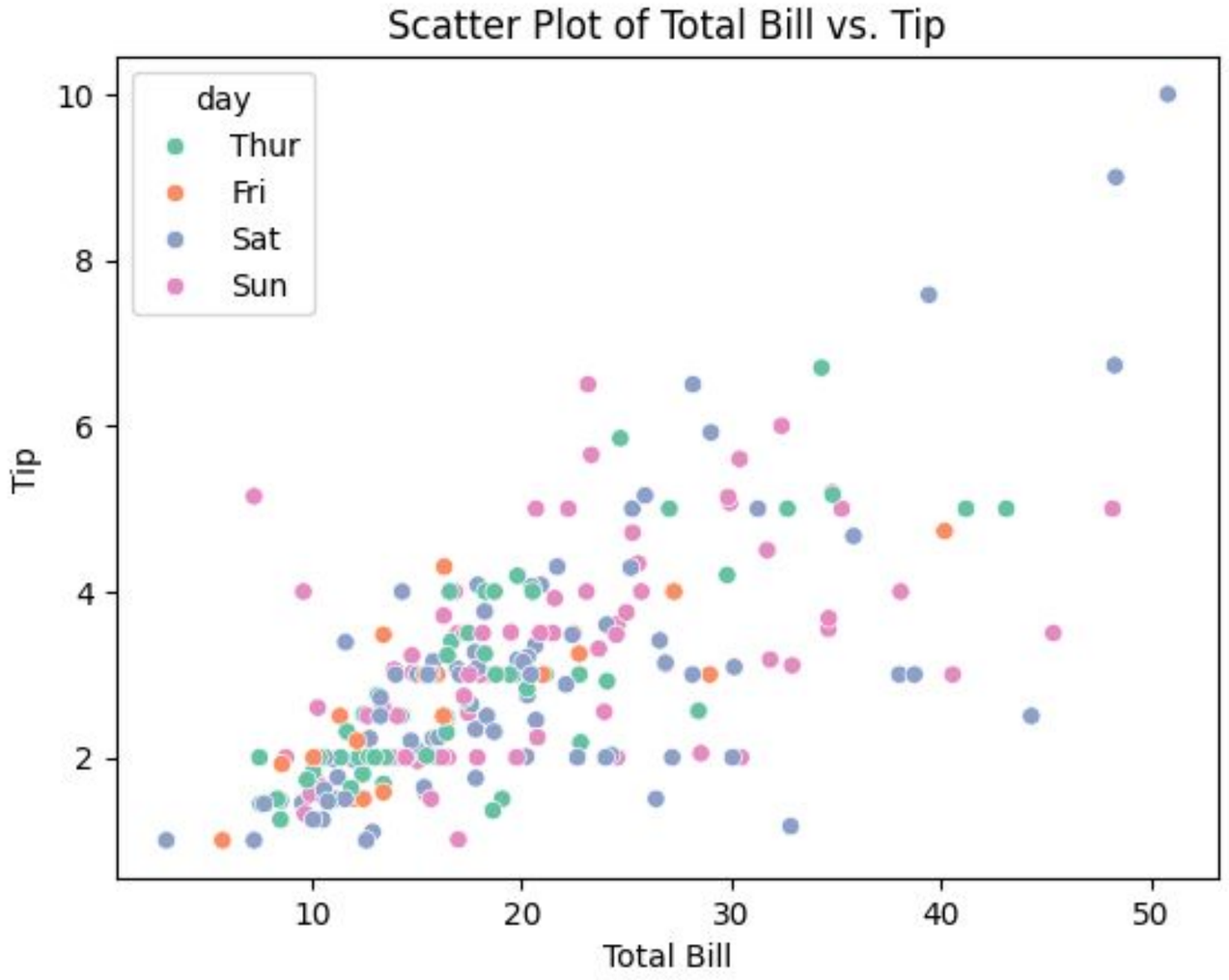
Exercise 2: Use box plots, violin plots, and count plots to analyze categorical relationships.

Task: Plot a count of day values in tips, grouped by smoker using hue.



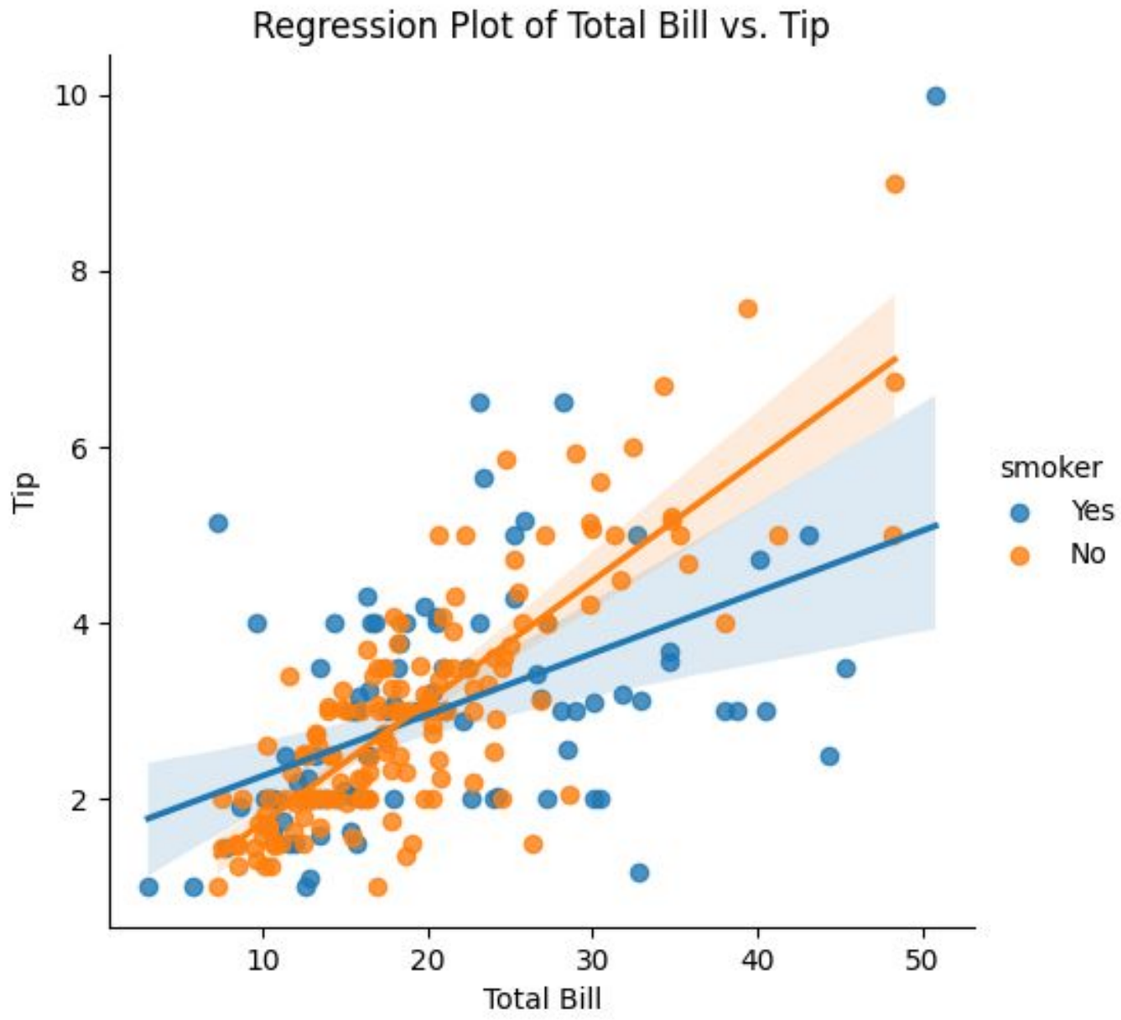
Exercise 3: Visualize relationships between numerical variables and add regression lines.

Task: Create a scatter plot of total_bill vs. tip in tips, colored by day with the Set2 palette.



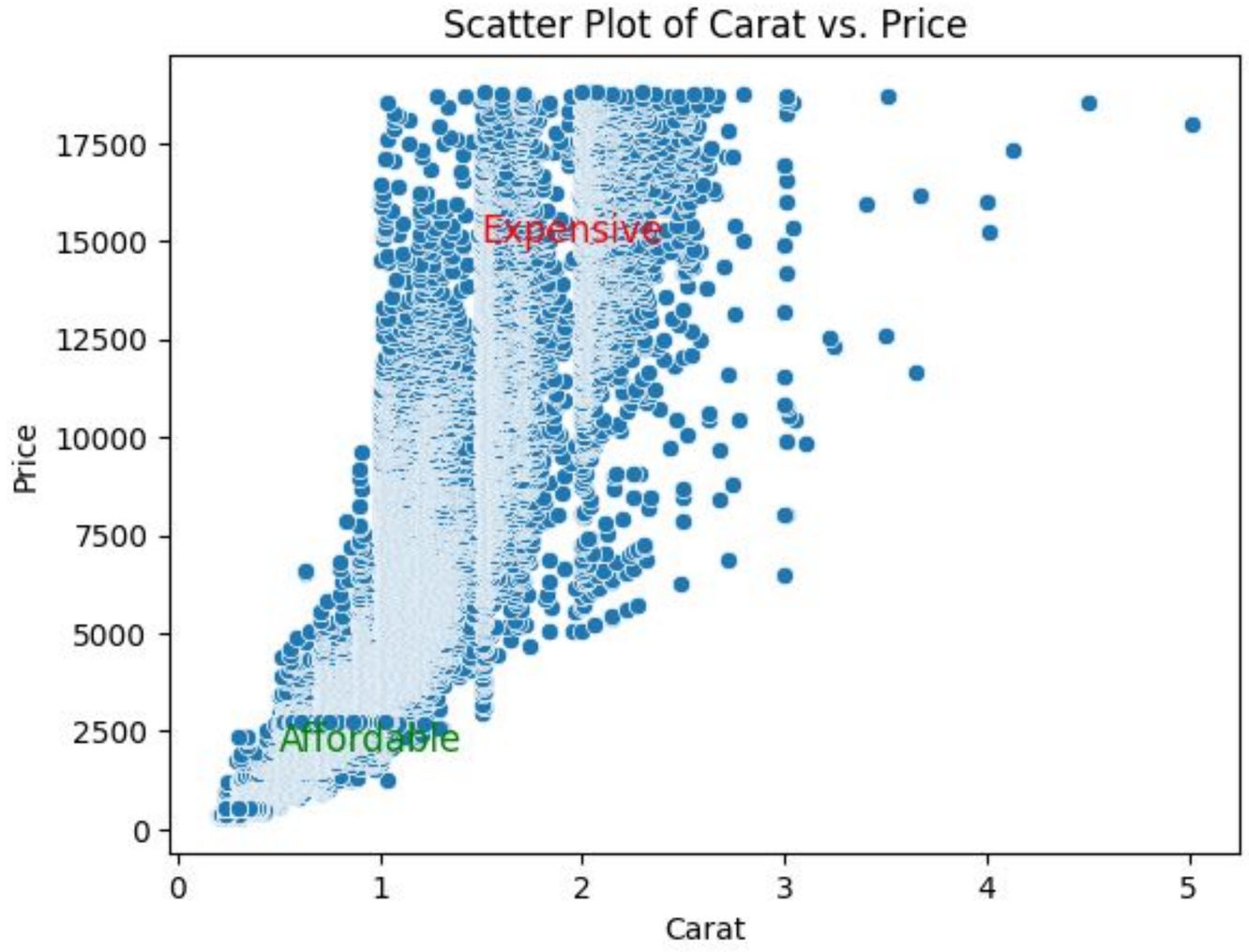
Exercise 3: Visualize relationships between numerical variables and add regression lines.

Task: Use lmplot() to add regression lines for total_bill vs. tip, split by smoker.



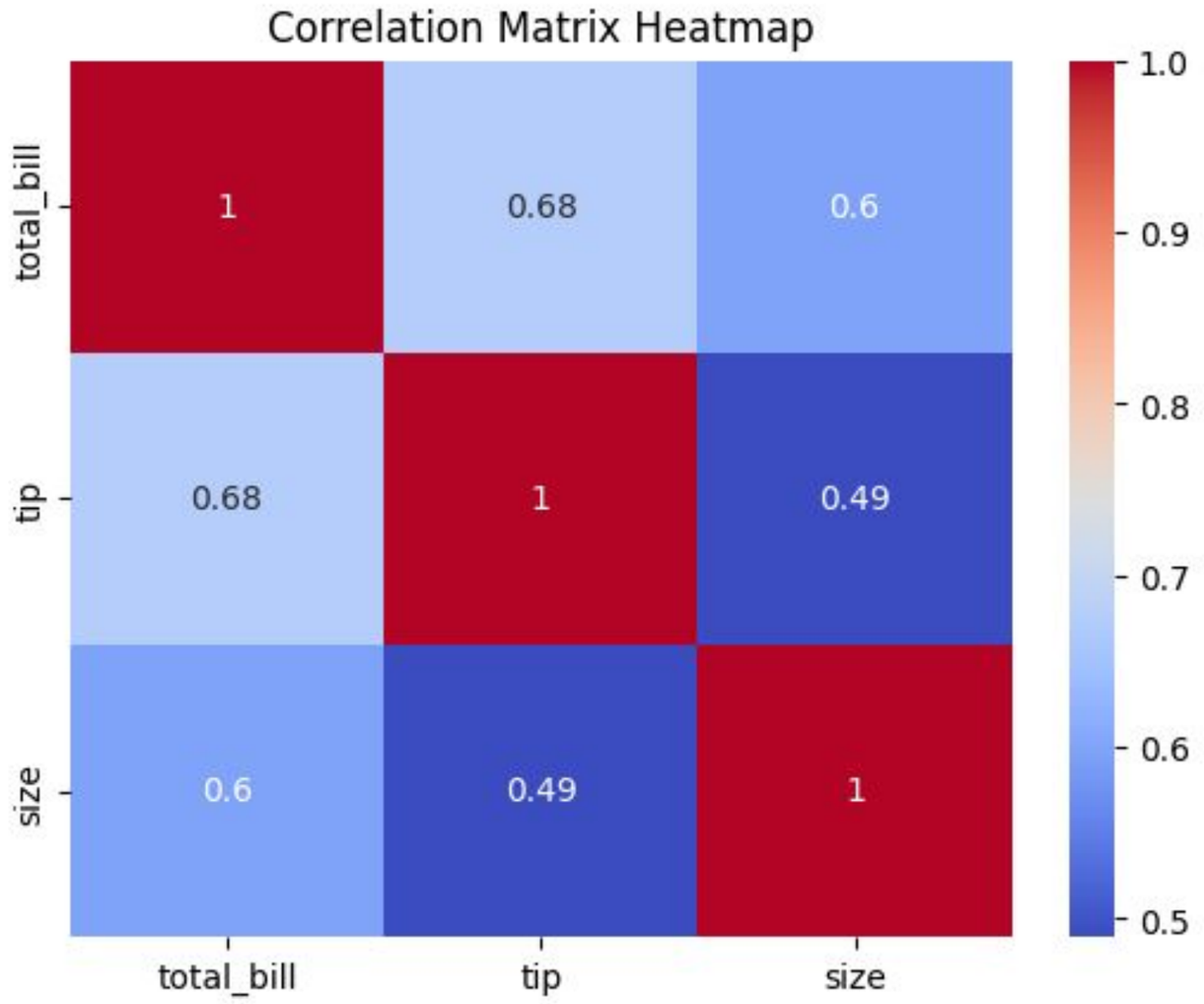
Exercise 3: Visualize relationships between numerical variables and add regression lines.

Task: For the diamonds dataset, plot carat vs. price and annotate regions for 'expensive' and 'affordable' diamonds.



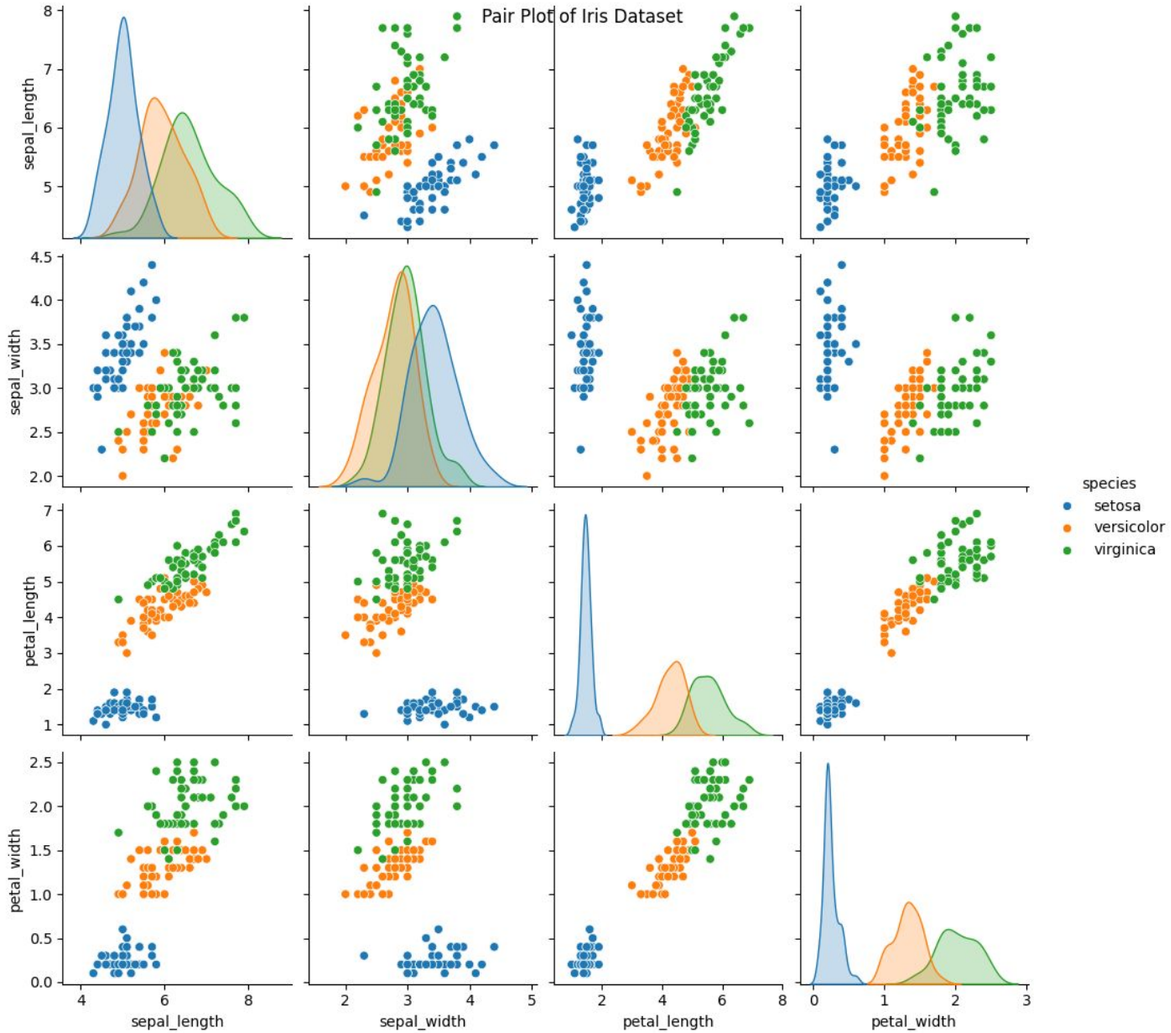
Exercise 4: Explore correlations and multi-variable relationships.

Task: Compute and visualize the correlation matrix for numerical columns in tips as a heatmap.



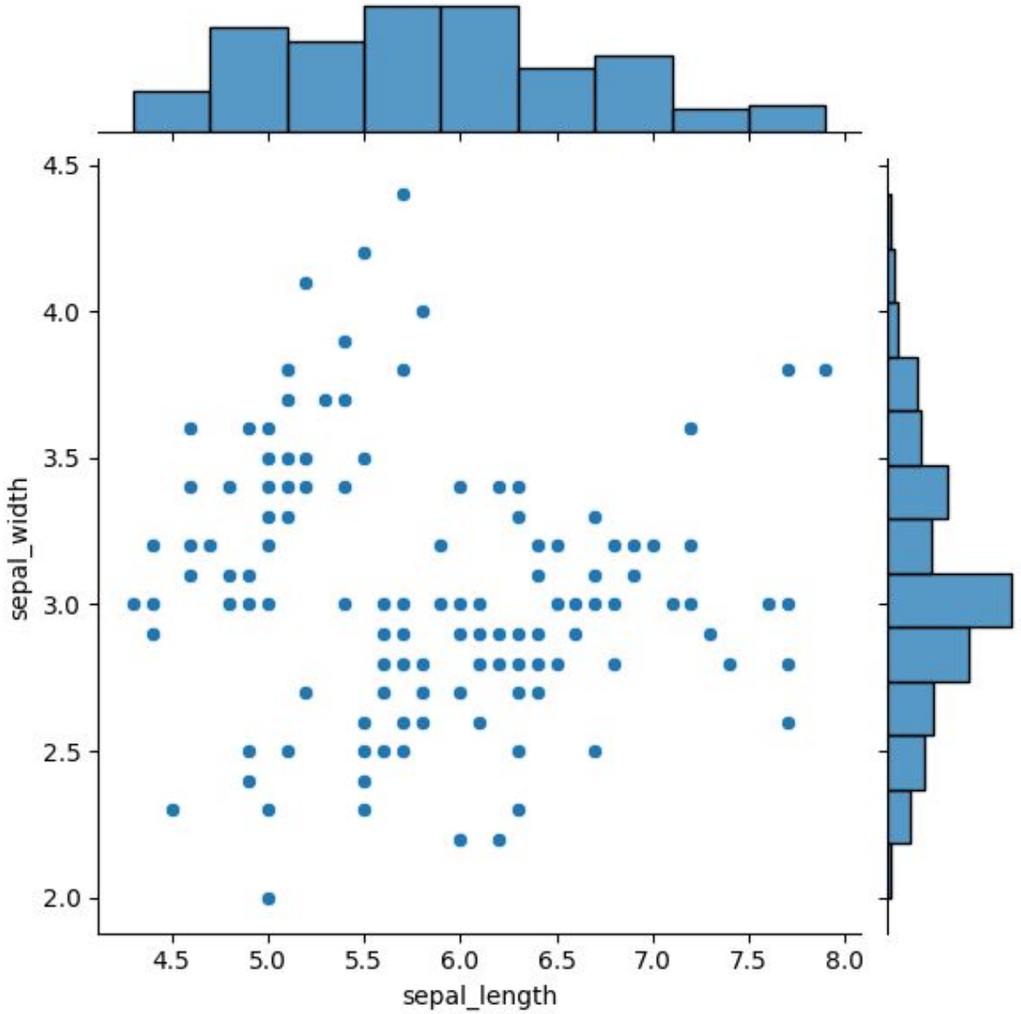
Exercise 4: Explore correlations and multi-variable relationships.

Task: Generate a pair plot for the iris dataset, colored by species with KDE diagonals.



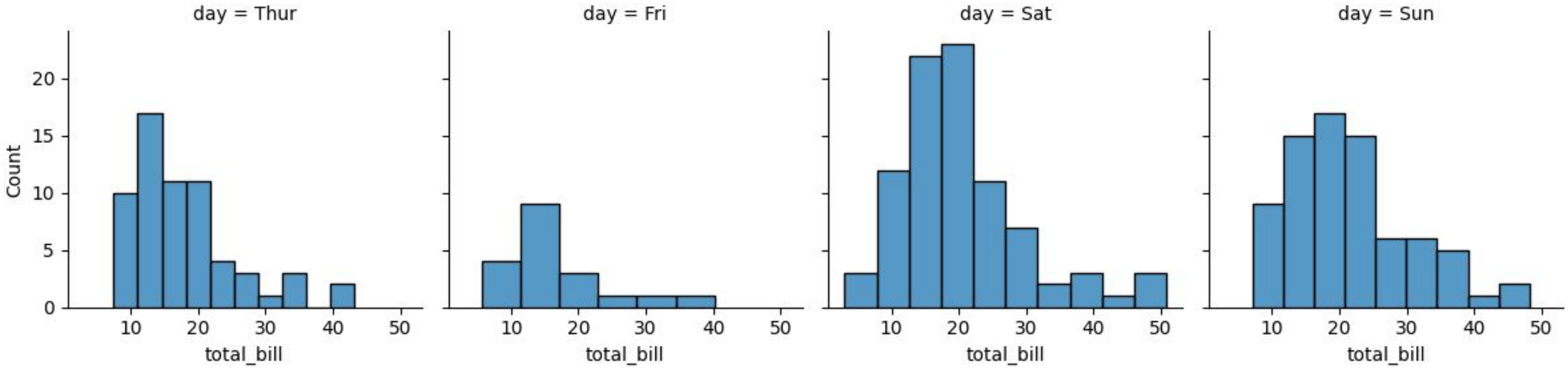
Exercise 4: Explore correlations and multi-variable relationships.

Task: Create a joint plot for sepal_length vs. sepal_width in iris.



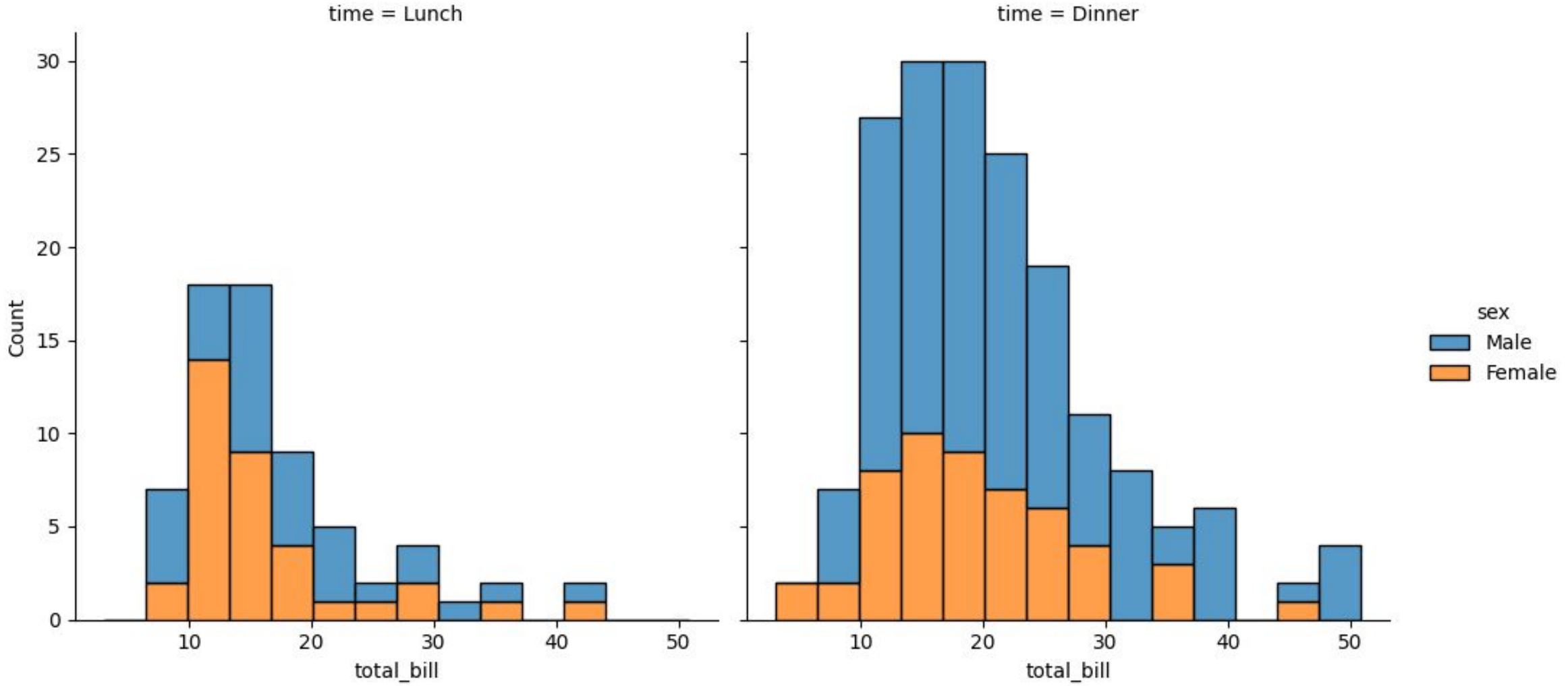
Exercise 5: Use faceting to compare subsets of data.

Task: Use FacetGrid to create histograms of total_bill split by day in tips.



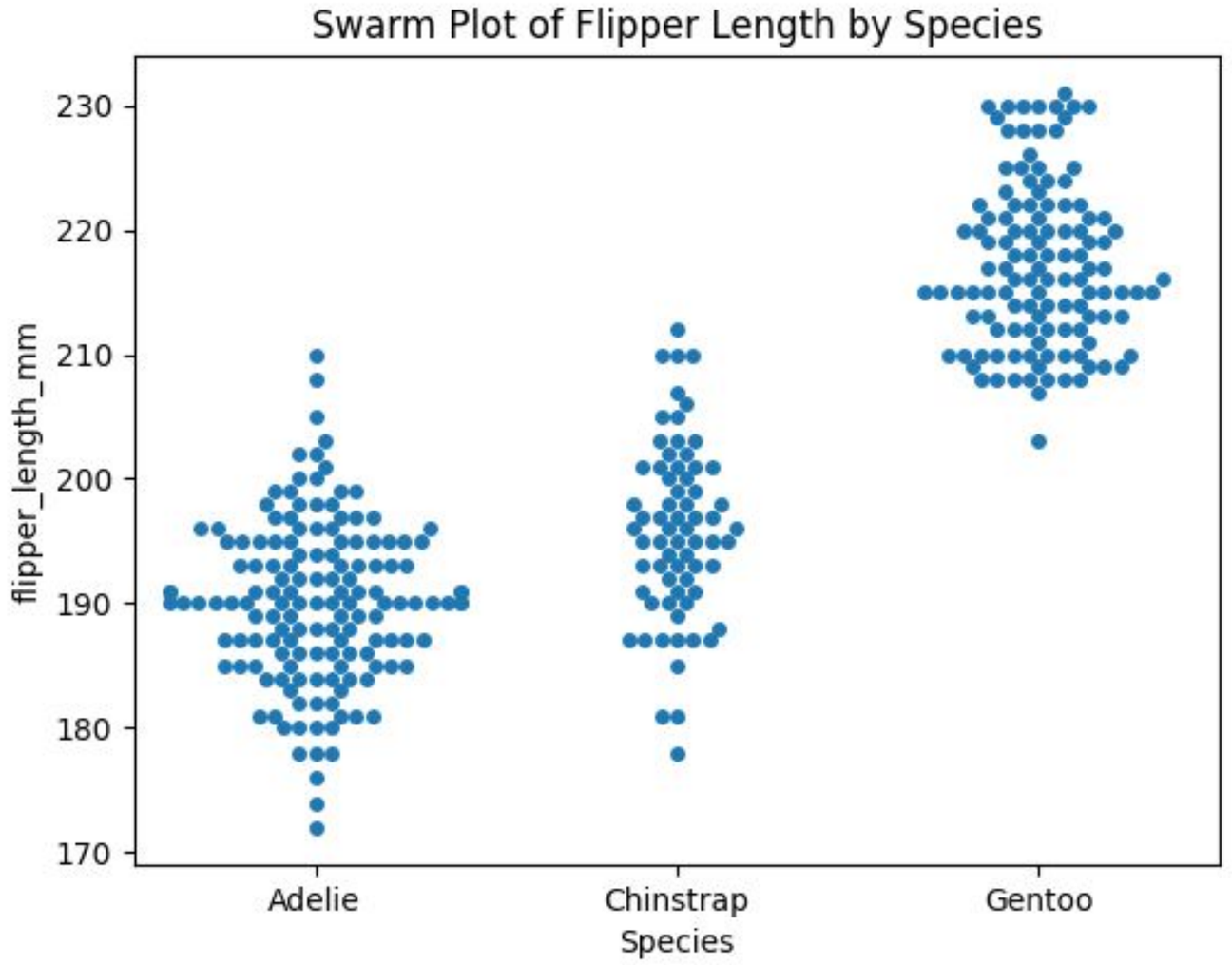
Exercise 5: Use faceting to compare subsets of data.

Task: Generate a displot of total_bill with col='time' and hue='sex', using stacked histograms.



Exercise 6: Visualize distributions with non-standard plots using the penguins dataset.

Task: Drop missing values in penguins and create a swarm plot of flipper_length_mm by species.



Exercise 6: Visualize distributions with non-standard plots using the penguins dataset.

Task: Generate a boxen plot of body_mass_g by species.