In [1]:
```
import streamlit as st
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="whitegrid")

tips = sns.load_dataset("tips")

st.title('Mr.prakash senapati seaborn bootcamp tips data visualization app')
st.write("This is a simple app to visualize the tips dataset using seaborn.")

# function create and display plot
def display_plot(title, plot_func):
    st.subheader(title)
    fig, ax = plt.subplots(figsize=(8, 6))
    plot_func(ax=ax)
    st.pyplot(fig)
    plt.close(fig)

# plot

def scatter_plot(ax):
    sns.scatterplot(data=tips, x="total_bill", y="tip",hue="time", size="size",
    ax.set_title("Scatter plot of total bill vs tip")\

def line_plot(ax):
    sns.lineplot(data=tips, x= 'size', y='total_bill', hue='sex',markers='o',ax=
    ax.set_title("Line plot of total bill vs tip")

def bar_plot(ax):
    sns.barplot(data=tips, x='day', y='total_bill', hue = 'sex',palette='muted',
    ax.set_title("Barplot of Total Bill by Day")

def box_plot(ax):
    sns.boxplot(data=tips, x='day', y='tip', hue='smoker', palette='Set2',ax=ax)
    ax.set_title("Boxplot of Tips by Day and Smoker Status")

def violin_plot(ax):
    sns.violinplot(data=tips, x='day', y='total_bill', hue='time', split=True, p
    ax.set_title("Violin Plot of Total Bill by Day and Time")

def count_plot(ax):
    sns.countplot(data=tips, x='day', hue='smoker', palette='dark',ax=ax)
    ax.set_title("Count Plot of Days by Smoker Status")

def reg_plot(ax):
    sns.regplot(data=tips, x='total_bill', y='tip', scatter_kws={'s':50}, line_k
    ax.set_title("Regression Plot of Total Bill vs Tip")

def hist_plot(ax):
    sns.histplot(data=tips, x='total_bill', bins=20, kde=True, color='blue',ax=a
    ax.set_title("Histogram of Total Bill with KDE")

def strip_plot(ax):
    sns.stripplot(data=tips, x='day', y='tip', hue='sex', jitter=True, palette='
    ax.set_title("strip plot: Tips by data and gender")

def kde_plot(ax):
```

```
    sns.kdeplot(data=tips, x='total_bill',hue='sex', fill=True, palette='tab10',
    ax.set_title("kde plot:Total bill density by gender")


display_plot("Scatter Plot", scatter_plot)
display_plot("Line Plot", line_plot)
display_plot("Bar Plot", bar_plot)
display_plot("Box Plot", box_plot)
display_plot("Violin Plot", violin_plot)
display_plot("Count Plot", count_plot)
display_plot("Regression Plot", reg_plot)
display_plot("Histogram Plot", hist_plot)
display_plot("Strip Plot", strip_plot)
display_plot("KDE Plot", kde_plot)
```

```
2025-07-14 12:34:06.464
  Warning: to view this Streamlit app on a browser, run it with the following
  command:

    streamlit run C:\Users\HAI\anaconda3\Lib\site-packages\ipykernel_launcher.py
[ARGUMENTS]
```

In [ ]:

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