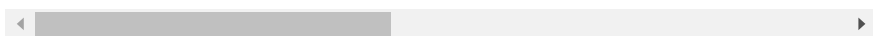
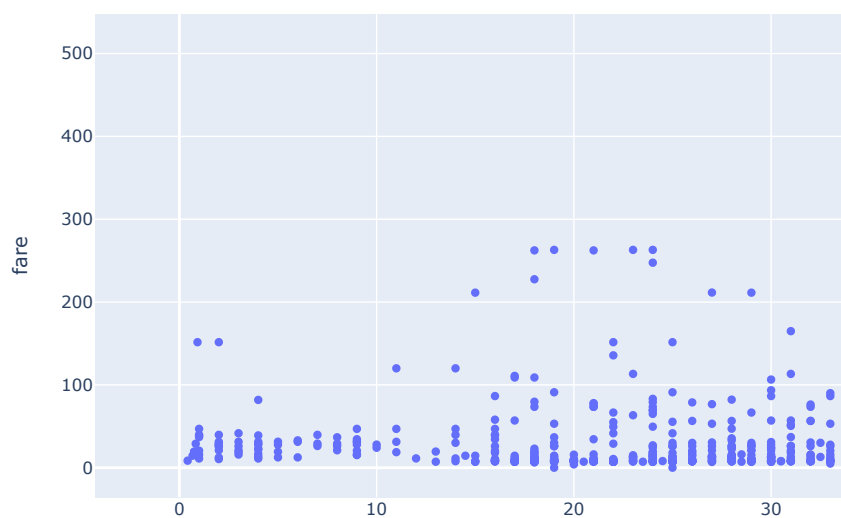


Q.1 Load the "titanic" dataset using the load_dataset function of seaborn. Use Plotly express to plot a scatter plot for age and fare columns in the titanic dataset.

```
# Ans:
import seaborn as sns
import plotly.express as plt
titanic=sns.load_dataset("titanic")
plt.scatter(titanic,x="age",y="fare",title="Scatter plot of Age vs Fare in Titanic")
```



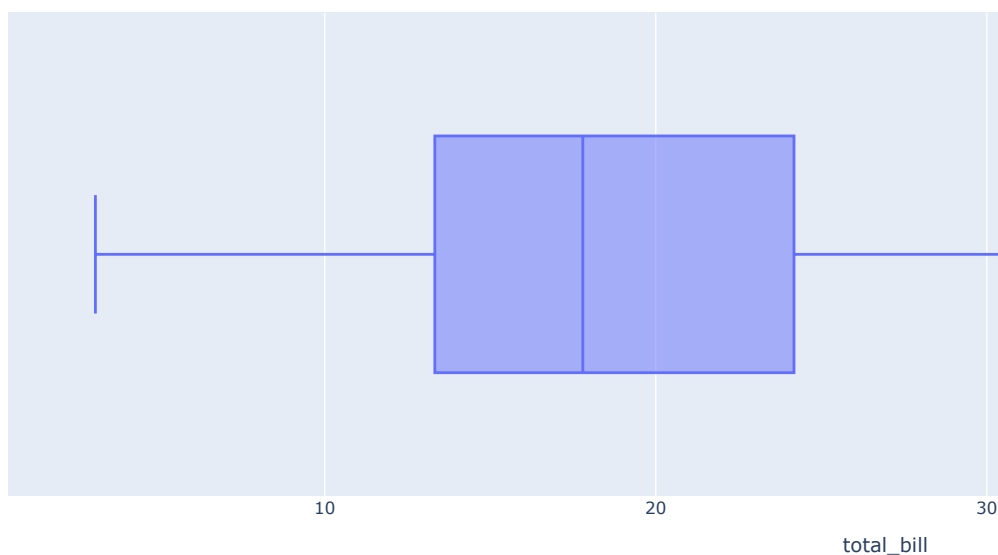
Scatter plot of Age vs Fare in Titanic



Q.2 Using the tips dataset in the Plotly library, plot a box plot using Plotly express.

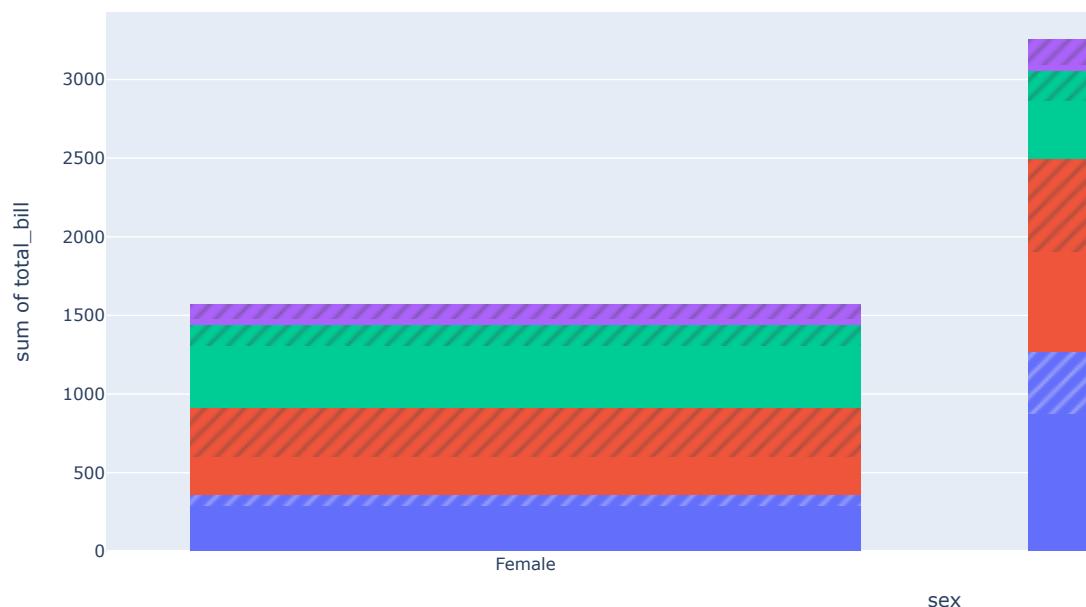
```
# Ans:
import plotly.express as plt
import seaborn as sns
tips=sns.load_dataset("tips")
plt.box(tips,x="total_bill",title="Box Plot of Total bill in tips Dataset")
```

Box Plot of Total bill in tips Dataset



Q.3 Using the tips dataset in the Plotly library, Plot a histogram for x= "sex" and y="total_bill" column in the tips dataset. Also, use the "smoker" column with the pattern_shape parameter and the "day" column with the color parameter.

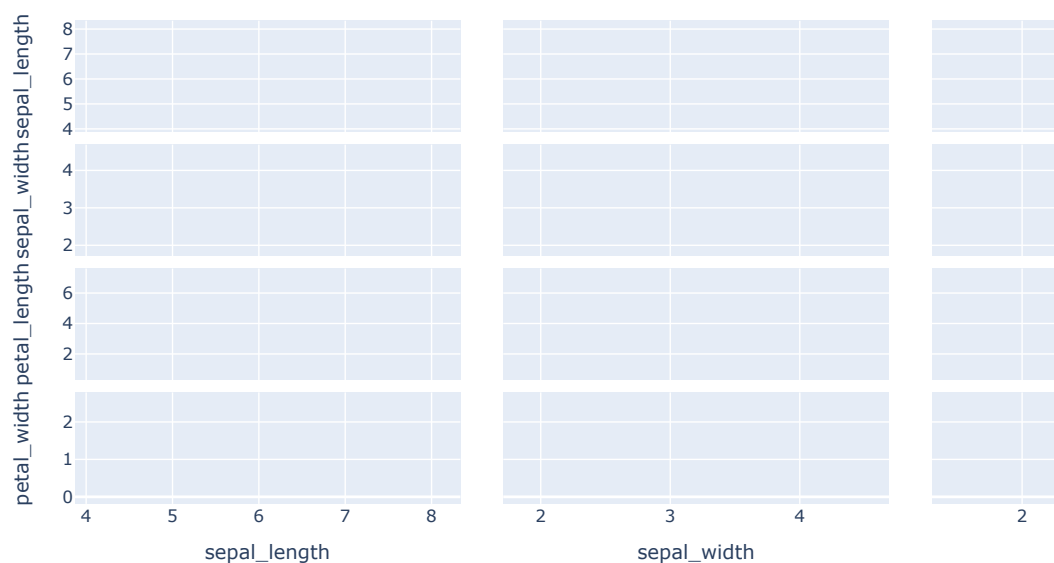
```
# Ans:
import seaborn as sns
import plotly.express as plt
tips=sns.load_dataset("tips")
plt.histogram(tips,x="sex",y="total_bill",color="day",pattern_shape="smoker")
```



Q.4 Using the iris dataset in the Plotly library, Plot a scatter matrix plot, using the "species" column for the color parameter. Note: Use "sepal_length", "sepal_width", "petal_length", "petal_width" columns only with the dimensions parameter.

```
import plotly.express as plt
df=plt.data.iris()
plt.scatter_matrix(df,dimensions=['sepal_length','sepal_width','petal_length','petal_width'],color="species",title="Scatter Matrix
```

Scatter Matrix plot of Iris Dataset



Q.5 What is Distplot? Using Plotly express, plot a distplot.

```
# Ans:
# What is Distplot:
# 1. A distplot (distribution plot) is a graphical representation of the distribution of a univariate dataset.
# 2. It displays the distribution of a single variable by showing a histogram, a probability density curve, and sometimes additional statistics.
# 3. Simply a distplot helps you visualize the spread and shape of a dataset, making it easier to understand the underlying distribution.

# Using Plotly express, plot a distplot:
import plotly.express as px
data=[1,2,3,4,5,6,7,8,9,10,11,12,23,34,23,45,54,34,45,56,67]
px.histogram(data, title="Distribution Plot (distplot)")
```

