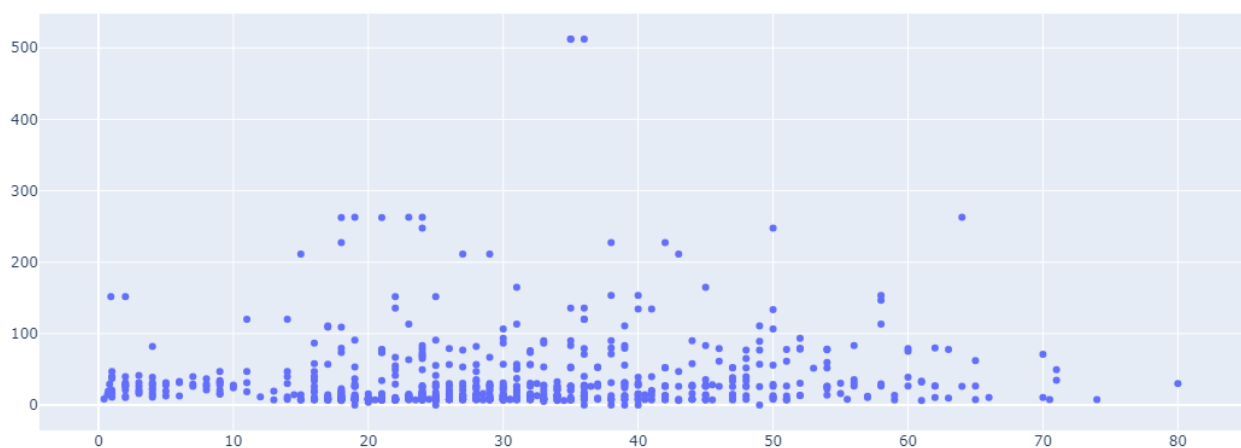


Q1. Load the "titanic" dataset using the load\_dataset function of seaborn. Use Plotly express to plot a scatter plot for age and fare columns in the titanic dataset.

```
import seaborn as sns
titanic = sns.load_dataset('titanic')
titanic.head()
```

```
import plotly.graph_objects as go
fig = go.Figure() # to create a figure
fig.add_trace(go.Scatter(x = titanic.age , y = titanic.fare , mode =
'markers')) # to create a Scatter plot
fig.show()
```



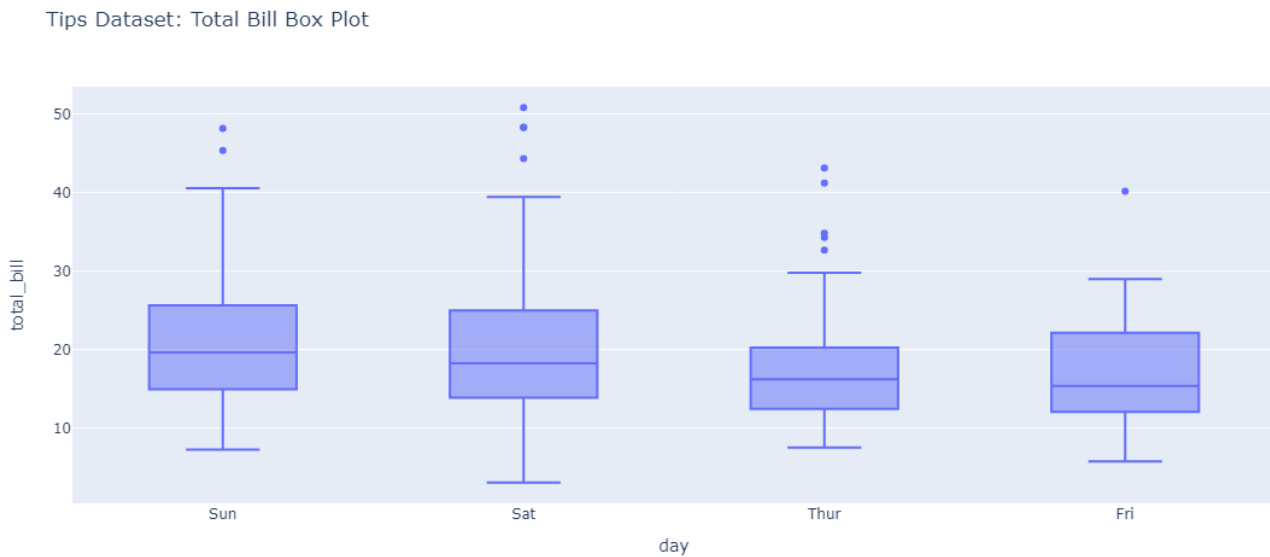
Q2. Using the tips dataset in the Plotly library, plot a box plot using Plotly express.

Answer :

Importing tips dataset from plotly express

```
import plotly.express as px
tips = px.data.tips()
tips.head()
```

# Plotting Boxplot



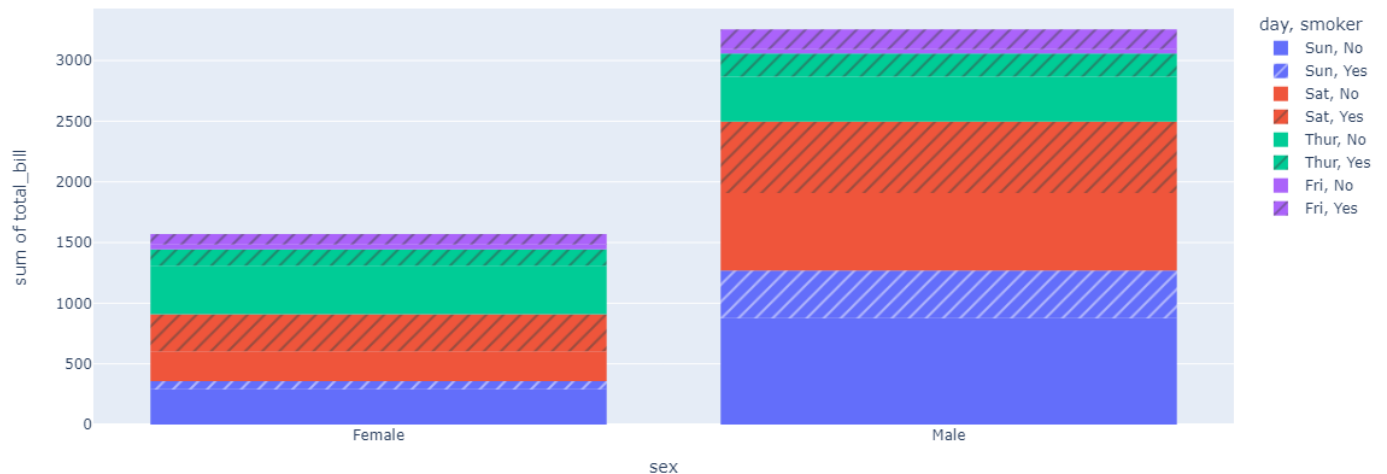
Q3. Using the tips dataset in the Plotly library, Plot a histogram for x= "sex" and y="total\_bill" column in the tips dataset. Also, use the "smoker" column with the pattern\_shape parameter and the "day" column with the color parameter.

ANS:-

Plot a histogram for "sex" and "total\_bill" columns using Plotlyexpress

```
fig = px.histogram(tips , x= "sex" , y="total_bill" , pattern_shape = "smoker" ,  
color = 'day' , title="Tips Dataset: Total Bill by Gender and Smoking Status")  
fig.show()
```

Tips Dataset: Total Bill by Gender and Smoking Status



Q4. 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 px

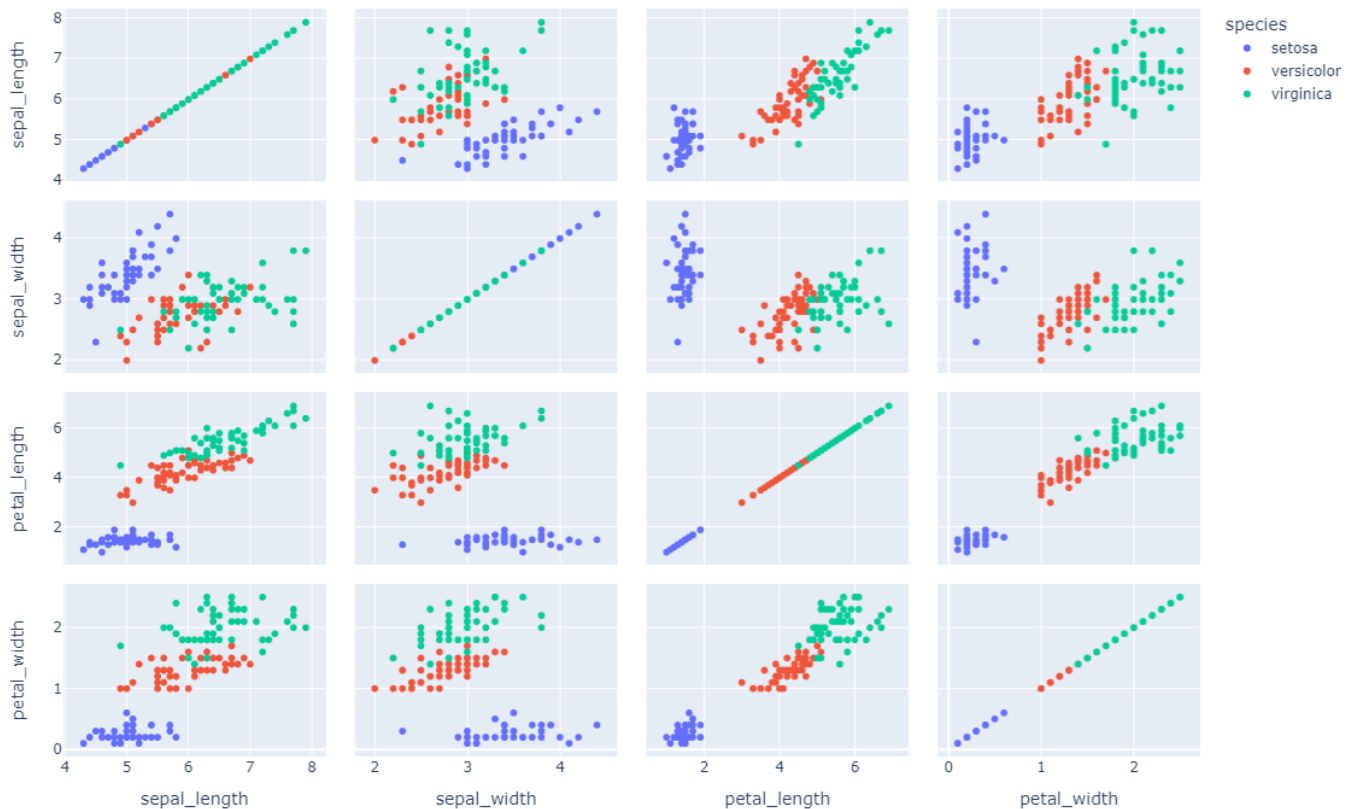
# Load the "iris" dataset from Plotly
iris = px.data.iris()
iris.head()

# Plot a scatter matrix plot using Plotly express
fig = px.scatter_matrix(iris , dimensions = ["sepal_length", "sepal_width",
"petal_length", "petal_width"],
                        color = "species" , title="Iris Dataset: Scatter Matrix
Plot")

# Updating the height of figure
fig.update_layout(height=800)

fig.show()
```

Iris Dataset: Scatter Matrix Plot



Q5. What is Distplot? Using Plotly express, plot a distplot.

Answer :

A Distplot or distribution plot, depicts the variation in the data distribution. Seaborn Distplot represents the overall distribution of continuous data variables.

Distplot is a seaborn library function that is used to visualize a univariate distribution of observations.

```
import plotly.express as px
tips = px.data.tips()
tips.head()
```

```
fig = px.histogram(tips , x = "total_bill" , y = "tip" , color = "sex" , title =  
"Tips Dataset : Showing Displot")  
fig.show()
```

Tips Dataset : Showing Displot

