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.

In [ ]:

```
import plotly.graph_objects as go
import plotly.express as px
import plotly as pl
import seaborn as sns
data = sns.load_dataset("titanic")
fig  = go.Figure()
fig.add_trace(go.Scatter(x = titanic['age'],y = titanic['fare'],mode = 'markers'))
```

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

In [ ]:

```
tips = pl.data.tips()
fig = px.box(x = tips['day'],y = tips['total_bill'])
fig.show()
```

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.

In [ ]:

```
tips = pl.data.tips()
graph = px.histogram(tips,x = "sex",y = "total_bill",color = "smoker",pattern_shape = "d
graph.show()
```

Q4. Using the iris dataset in the Plotly library, Plot a scatter matrix plot, using the "species" column for the color parameter.

In [ ]:

```
iris = pl.data.iris()
scatter = px.scatter_matrix(iris,color="species",dimensions = ["sepal_length", "sepal_wi
scatter.show()
```

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

Distplot is a function from the seaborn library used to plot a univariate distribution of observations. It combines a histogram with a kernel density estimate to provide a smoothed curve showing the shape of the distribution.

To plot a distplot using Plotly express, we can use the px.histogram() function with the marginal parameter set to "rug". This will add a rug plot to the x-axis, showing the individual observations in addition to the histogram and density curve.

In [ ]:

```
tips = pl.data.tips()
histogram = px.histogram(tips,x = ['total_bill'],color = 'sex')
histogram.show()
```