```
import plotly.express as px
import plotly.graph_objects as go
import seaborn as sns
```

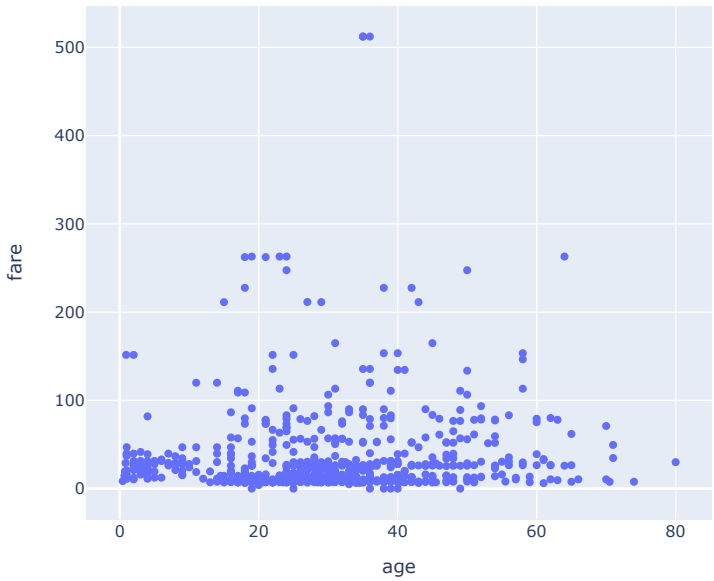
Q1. Load the "titanic" dataset using the load_dataset function of seaborn. Use Plotly express to plot a scatter plot for age and fare columns in the titanic dataset.

```
titanic = sns.load_dataset('titanic')
```

```
titanic.head()
```

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	deck	embark_town	alive	alone
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN	Southampton	no	False
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C	Cherbourg	yes	False
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN	Southampton	yes	True
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C	Southampton	yes	False
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN	Southampton	no	True

```
fig = px.scatter(titanic, x='age', y='fare')
fig.show()
```



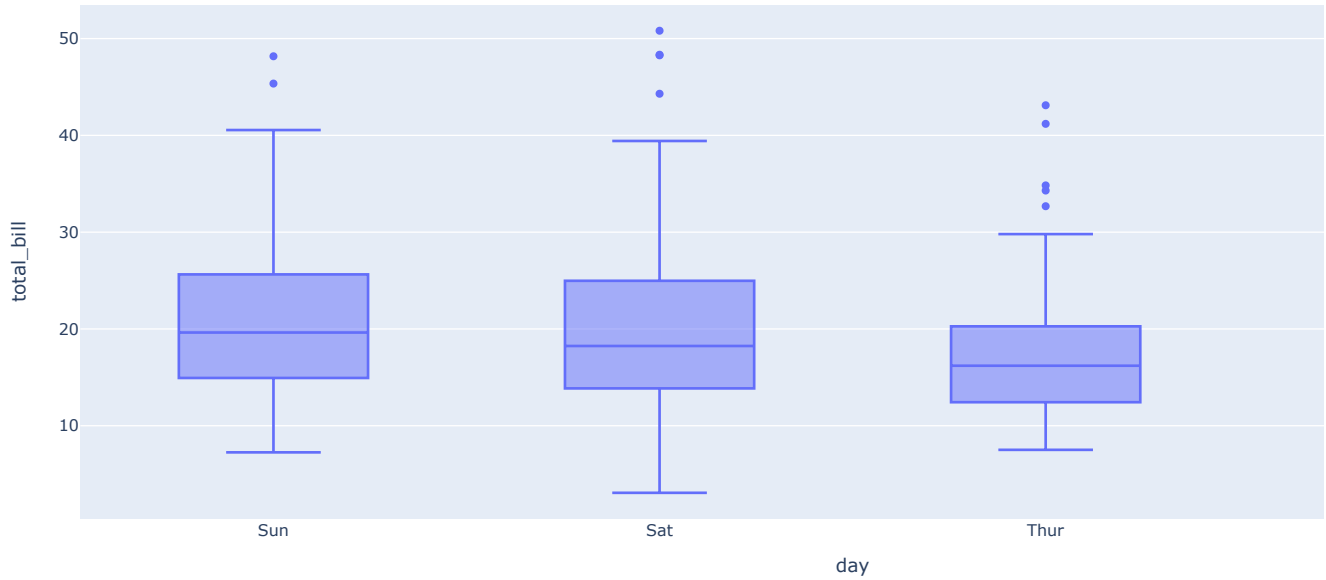
Q2. Using the tips dataset in the Plotly library plot a box plot using Plotly express.

```
tips = sns.load_dataset('tips')
```

```
tips.head()
```

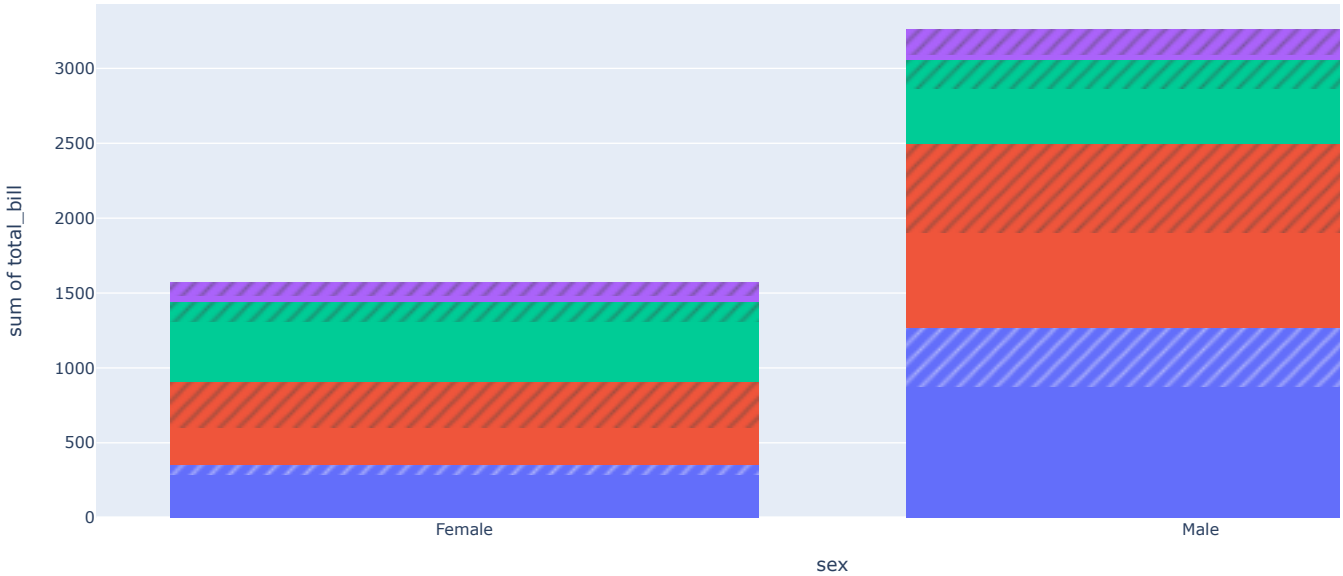
```
      total_bill  tip     sex  smoker  day   time  size
```

```
fig = px.box(tips,x='day', y='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.

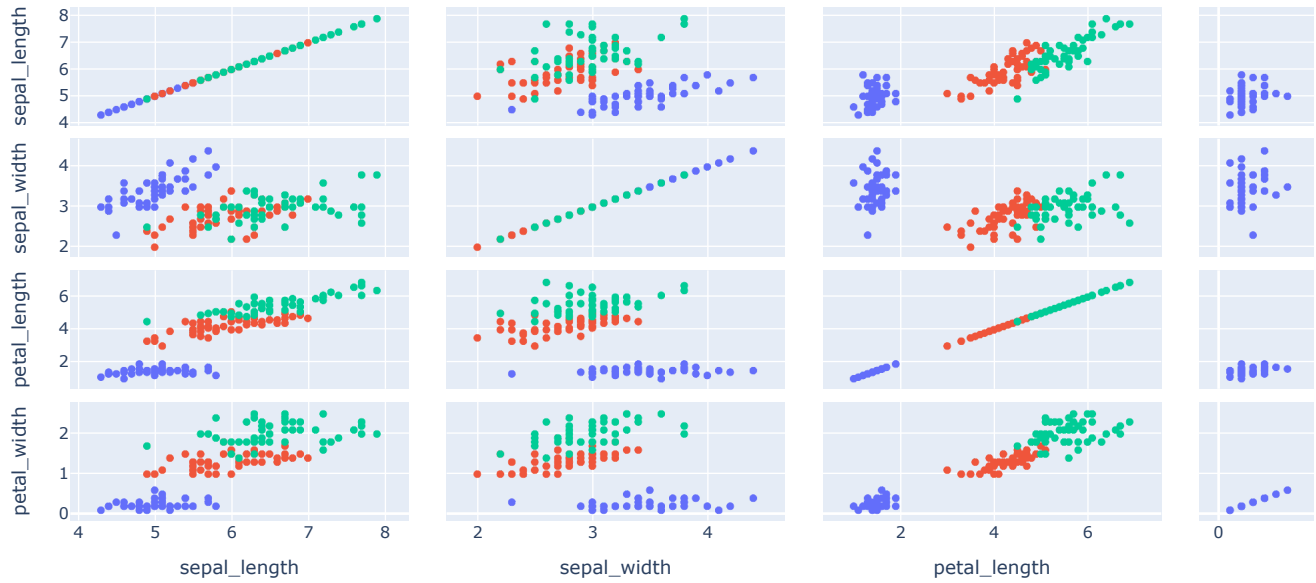
```
fig = px.histogram(tips, x = 'sex', y = 'total_bill', pattern_shape = 'smoker', color =
fig.show()
```



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

```
iris = sns.load_dataset('iris')
```

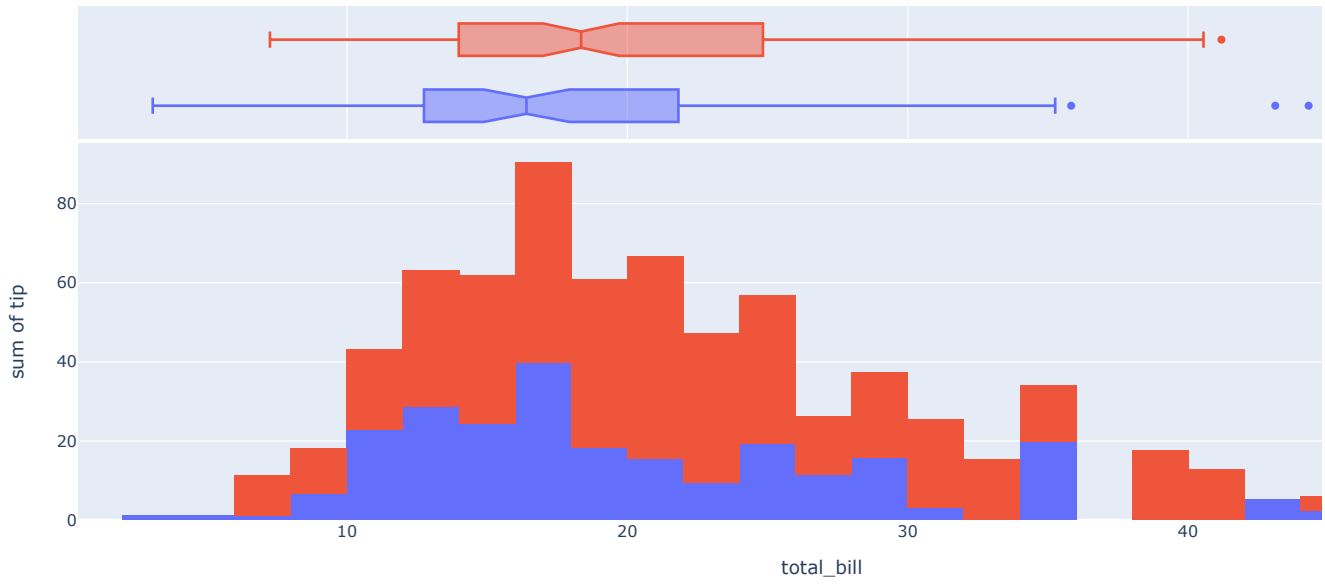
```
fig = px.scatter_matrix(iris,dimensions=['sepal_length', 'sepal_width', 'petal_length',
fig.show()
```



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

distplot is a function in the seaborn library that allows you to plot a histogram and a kernel density estimate (KDE) of a single variable. It is useful for visualizing the distribution of a dataset and identifying its underlying patterns.

```
fig = px.histogram(tips, x="total_bill", y="tip", color="sex", marginal="box", hover_dat
fig.show()
```



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