```
import plotly.express as px
```

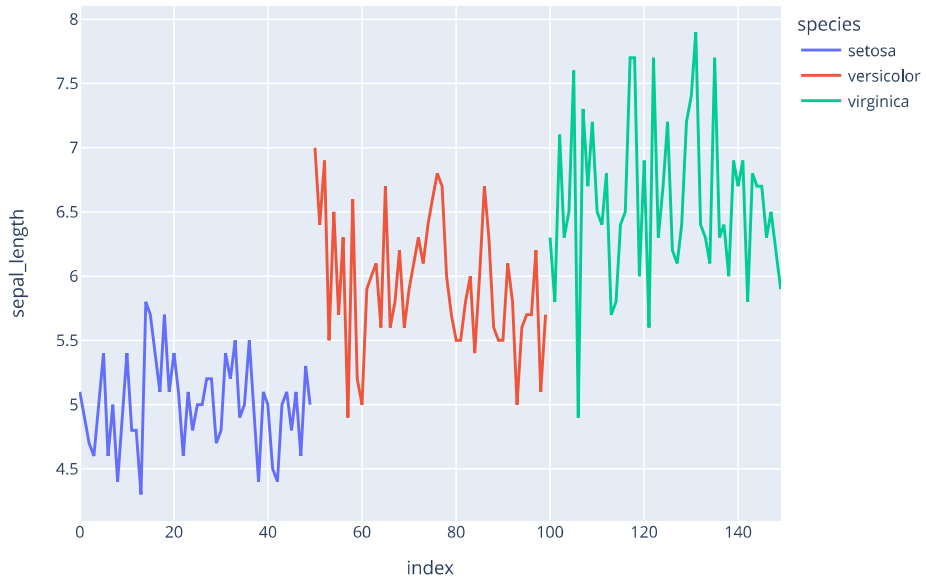
```
df = px.data.iris()
```

```
df.head()
```

	sepal_length	sepal_width	petal_length	petal_width	species	species_id
0	5.1	3.5	1.4	0.2	setosa	1
1	4.9	3.0	1.4	0.2	setosa	1
2	4.7	3.2	1.3	0.2	setosa	1
3	4.6	3.1	1.5	0.2	setosa	1
4	5.0	3.6	1.4	0.2	setosa	1

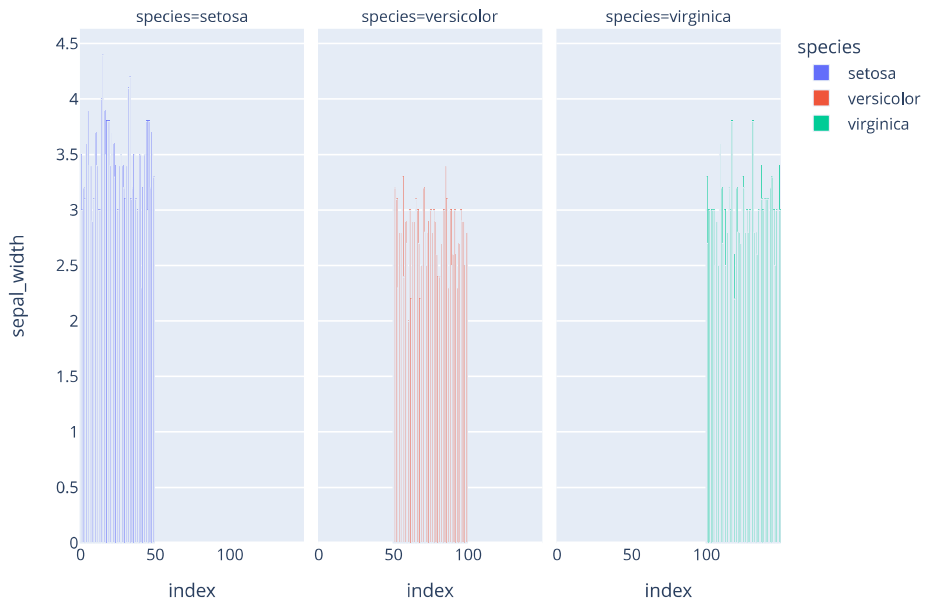
Line Chart

```
fig=px.line(df,y='sepal_length',line_group='species',color='species')
fig.show()
```



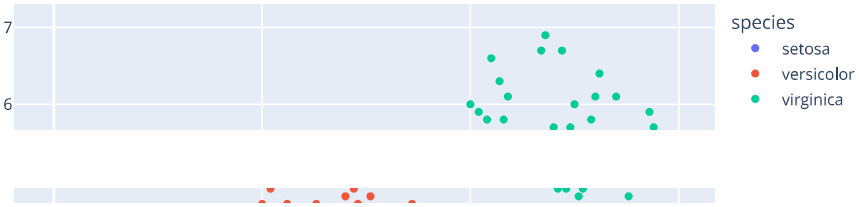
Bar Chart

```
fig=px.bar(df,y='sepal_width',color='species',facet_col='species')
fig.show()
```



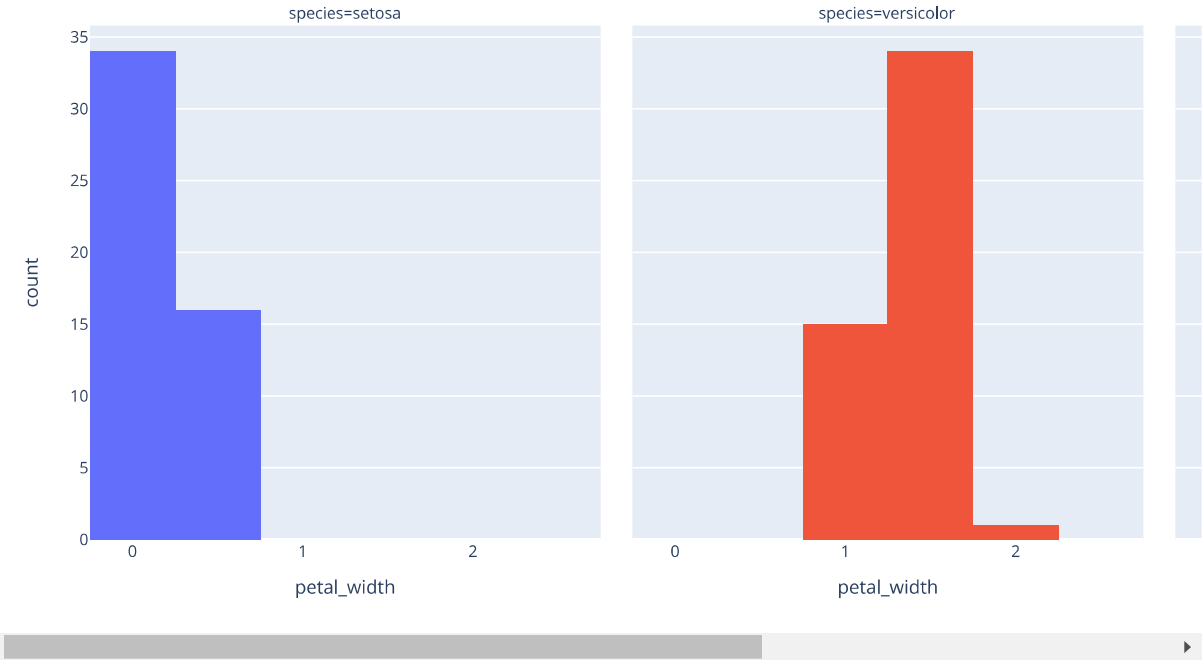
Scatter plot

```
fig=px.scatter(df,y='petal_length',color='species')
fig.show()
```



Histogram

```
fig=px.histogram(df,x='petal_width',color='species',facet_col='species')
fig.show()
```



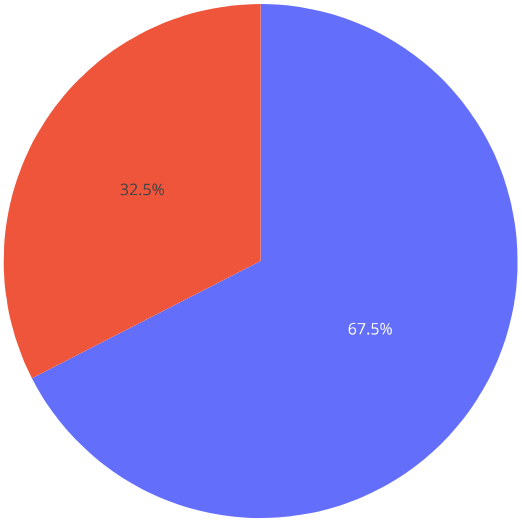
Pie Chart

```
df1 = px.data.tips()
```

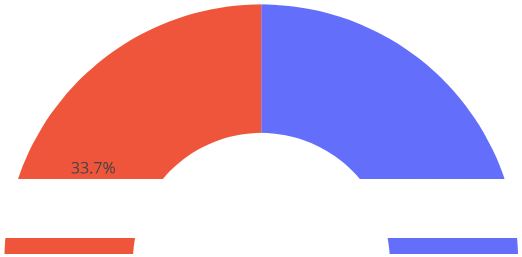
```
df1.head()
```

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2

```
fig=px.pie(df1,values='total_bill',names='sex')
fig.show()
```

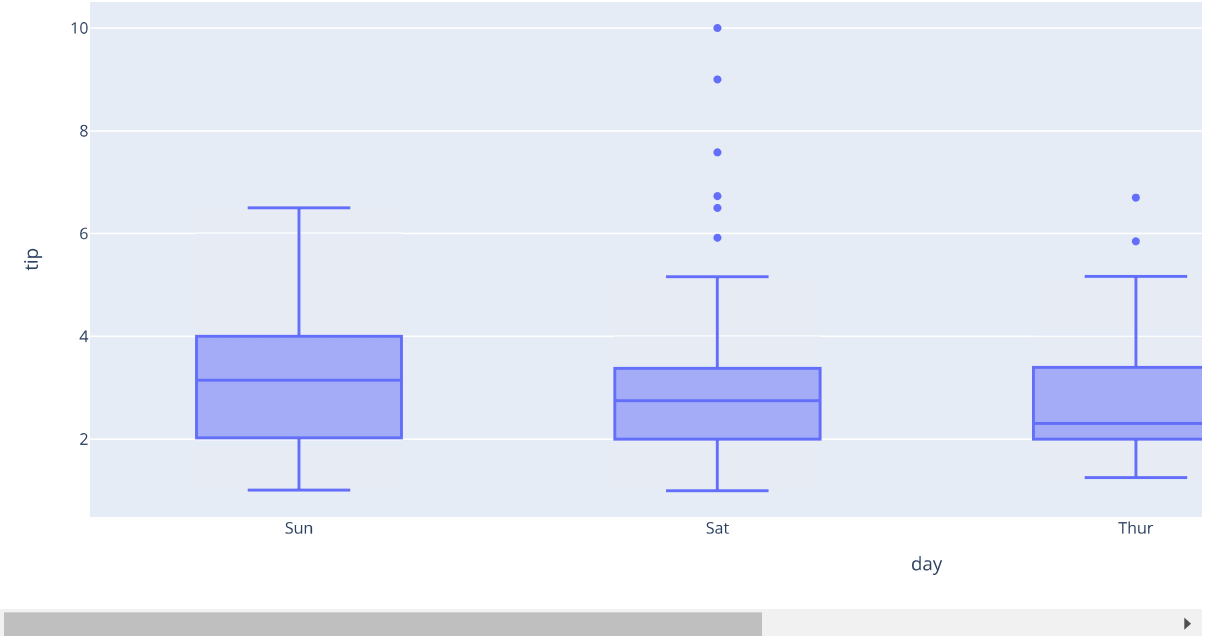



```
fig = px.pie(df1, values="total_bill", names="day",hole=0.5)
fig.show()
```

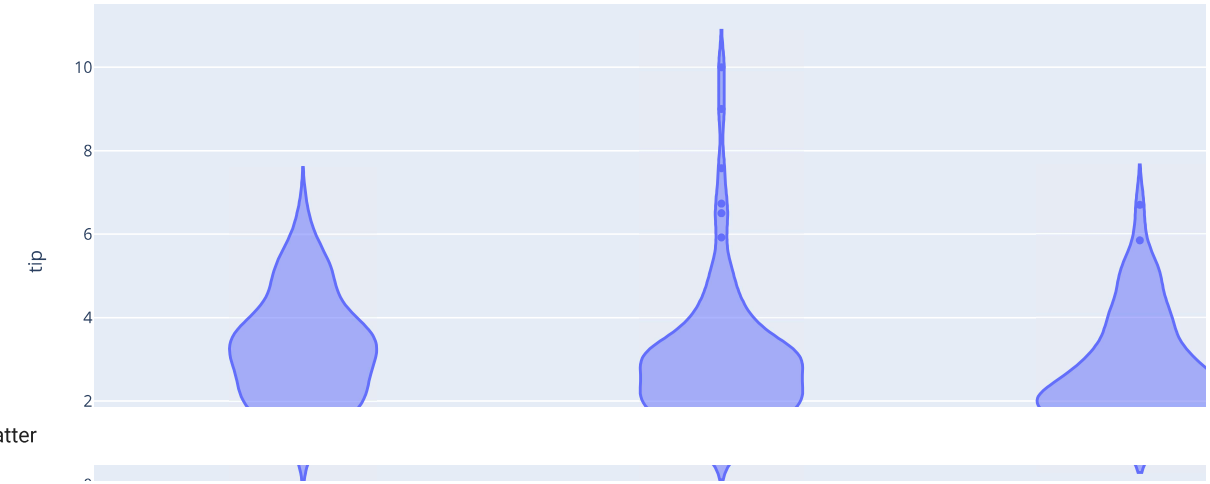


Box Plot

```
fig=px.box(df1,x='day',y='tip')
fig.show()
```

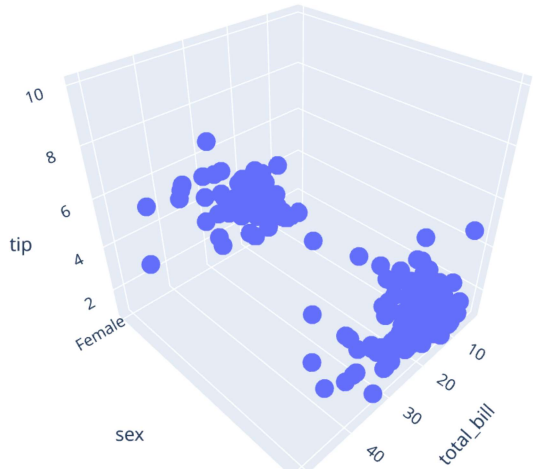



```
fig=px.violin(df1,x='day',y='tip')
fig.show()
```



3D Scatter

```
fig = px.scatter_3d(df1, x="total_bill", y="sex", z="tip")
fig.show()
```



Adding interaction to the plot

Dropdown Menu

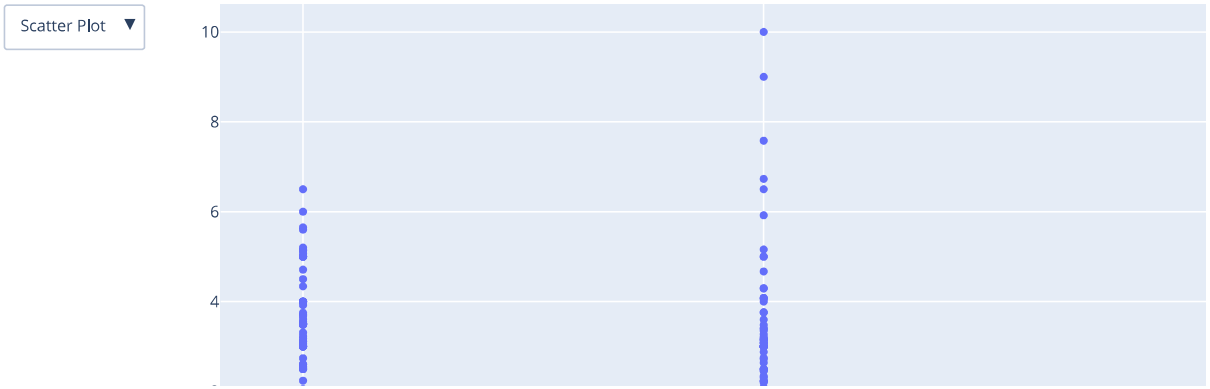
```
import plotly.graph_objects as px1
import numpy as np
import pandas as pd
```

```
df2=px.data.tips()
```

```
df2.head()
```

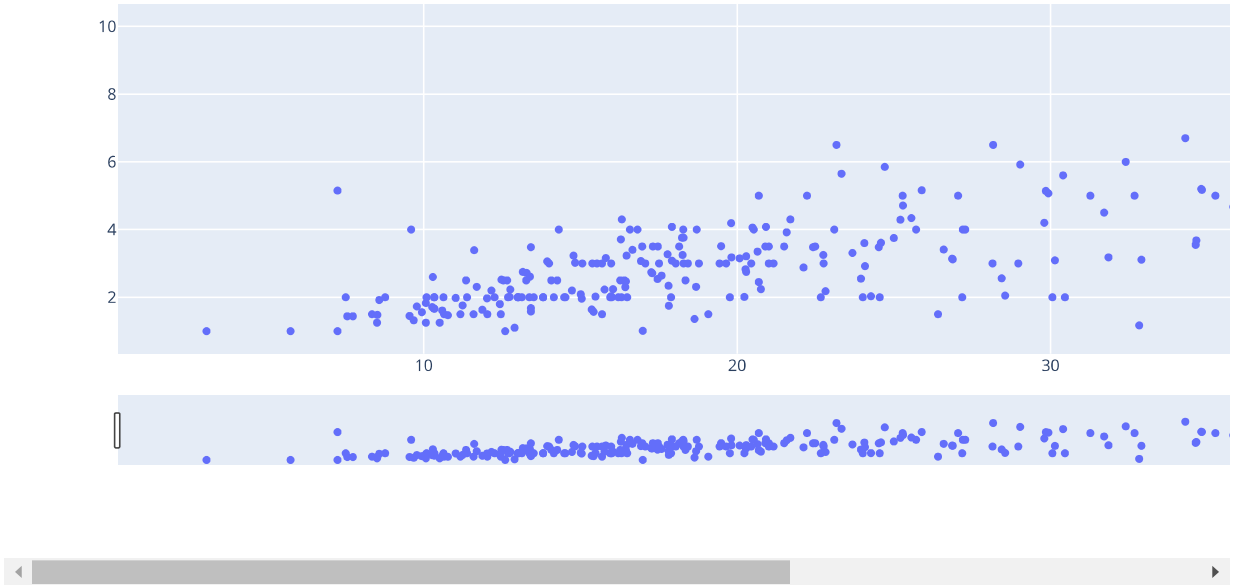
	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

```
plot = px1.Figure(data=[px1.Scatter(
    x=df2['day'],
    y=df2['tip'],
    mode='markers',)
])
plot.update_layout(
    updatemenus=[
        dict(buttons=list([
            dict(
                args=["type", "scatter"],
                label="Scatter Plot",
                method="restyle"
            ),
            dict(
                args=["type", "bar"],
                label="Bar Chart",
                method="restyle"
            )
        ]),
            direction="down",
        ),
    ]
)

plot.show()
```




```
plot = px1.Figure(data=[px1.Scatter(
    x=df2['day'],
    y=df2['tip'],
    mode='markers',)
])
plot.update_layout(
    updatemenus=[
        dict(type="buttons",
            buttons=list([
            dict(
                args=["type", "scatter"],
                label="Scatter Plot",
                method="restyle"
            ),
            dict(
                args=["type", "bar"],
                label="Bar Chart",
                method="restyle"
            )
        ]),
            direction="down",
        ),
    ]
)

plot.show()
```


```
import plotly.graph_objects as px
import plotly.express as go
import numpy as np

df = go.data.tips()

x = df['total_bill']
y = df['tip']

plot = px.Figure(data=[px.Scatter(
    x=x,
    y=y,
    mode='markers',)
])

plot.update_layout(
    xaxis=dict(
        rangeselector=dict(
            buttons=list([
                dict(count=1,
                    step="day",
                    stepmode="backward"),
            ])
        ),
        rangeslider=dict(
            visible=True
        ),
    )
)

plot.show()
```


10
8
6
4
2
10
20
30