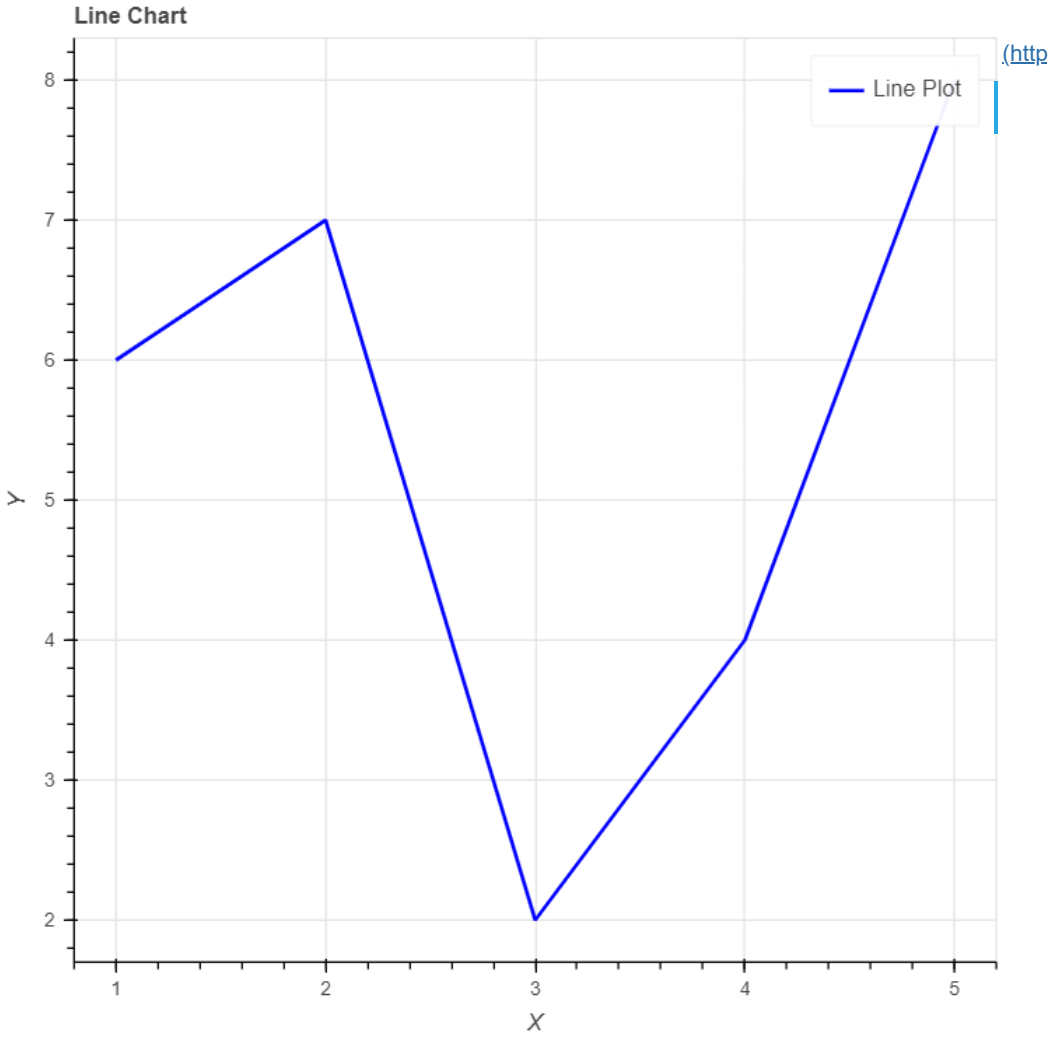
# Creating Interacting Charts Using BokehJS

## How to draw line charts using BokehJs ?

In [1]:
```
from bokeh.plotting import figure, show
from bokeh.io import output_notebook

x = [1, 2, 3, 4, 5]
y = [6, 7, 2, 4, 8]

output_notebook()

p = figure(title="Line Chart", x_axis_label='X', y_axis_label='Y')

p.line(x, y, line_width=2, line_color="blue", legend_label="Line Plot")

show(p)
```

(https://bokeh.org)

Loading BokehJS ...

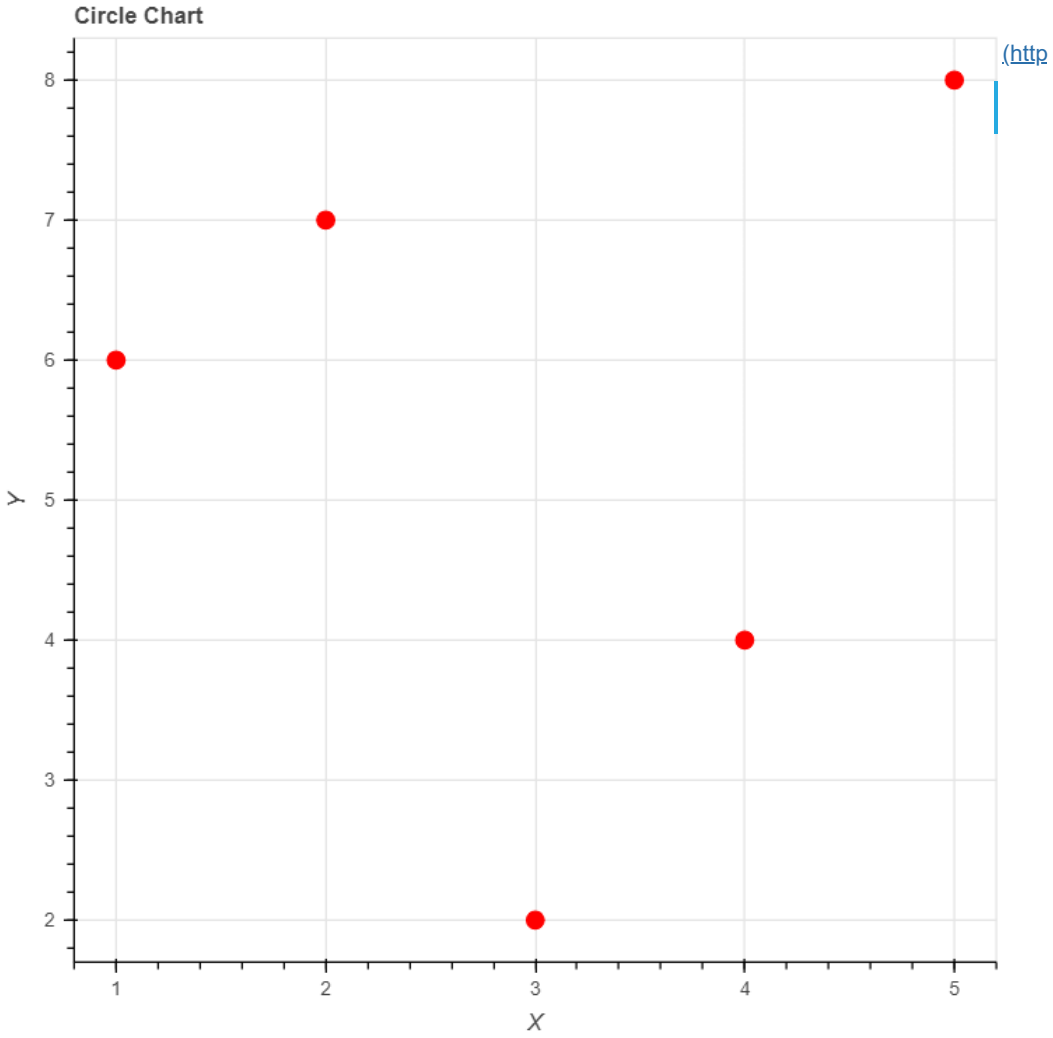


## How to draw scatter / circle chart Using BokehJS ?

In [2]:
```
from bokeh.plotting import figure, show
from bokeh.io import output_notebook

x = [1, 2, 3, 4, 5]
y = [6, 7, 2, 4, 8]

output_notebook()

p = figure(title="Circle Chart", x_axis_label='X', y_axis_label='Y')

p.circle(x, y, size=10, color="red")

show(p)
```

(https://bokeh.org)

Loading BokehJS ...

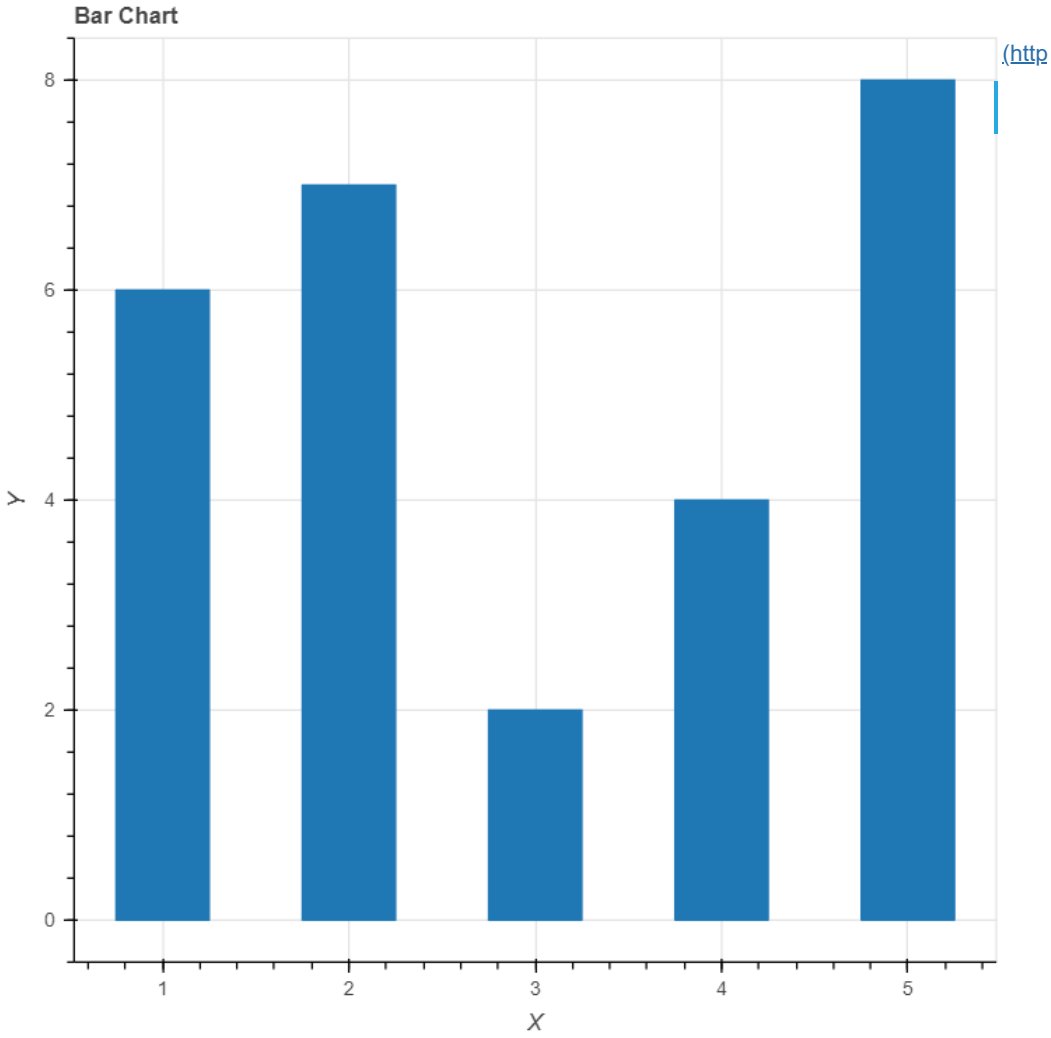


## How to draw Bar Charts Using BokehJS ?

In [3]:
```
from bokeh.plotting import figure, show
from bokeh.io import output_notebook

x = [1, 2, 3, 4, 5]
y = [6, 7, 2, 4, 8]

output_notebook()

p = figure(title = 'Bar Chart' , x_axis_label = 'X',y_axis_label = 'Y')

p.vbar(x=x, top=y, width=0.5, bottom=0)

show(p)
```

(https://bokeh.org)

BokehJS 2.4.3 successfully loaded.




## Plotting Dataset Using BokehJS

In [4]:
```
import seaborn as sns
from sklearn.datasets import load_iris
import pandas as pd
```

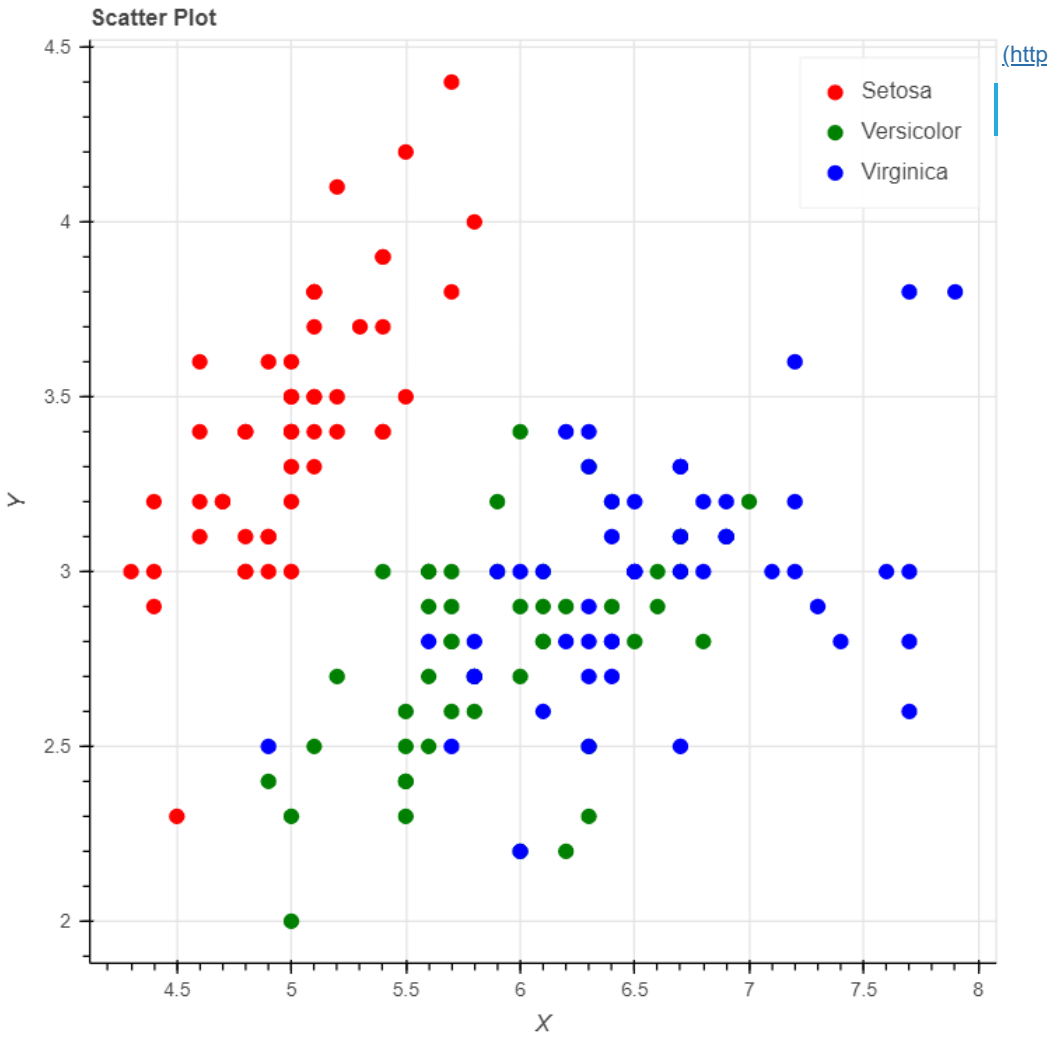
In [5]:
```
iris = sns.load_dataset('iris')
```

In [6]:
```
iris.head()
```

Out[6]:

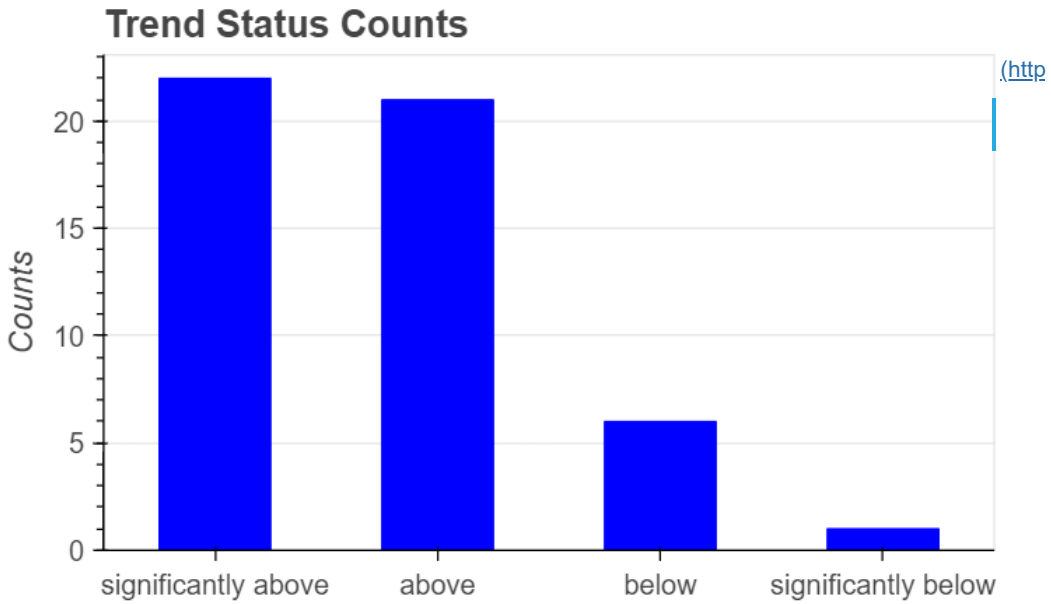
| | sepal_length | sepal_width | petal_length | petal_width | species |
|---|---|---|---|---|---|
| **0** | 5.1 | 3.5 | 1.4 | 0.2 | setosa |
| **1** | 4.9 | 3.0 | 1.4 | 0.2 | setosa |
| **2** | 4.7 | 3.2 | 1.3 | 0.2 | setosa |
| **3** | 4.6 | 3.1 | 1.5 | 0.2 | setosa |
| **4** | 5.0 | 3.6 | 1.4 | 0.2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

In [7]:
```
p = figure(title = 'Scatter Plot' , x_axis_label = 'X',y_axis_label = 'Y')

p.circle(iris[iris['species'] == 'setosa']['sepal_length'], iris[iris['species'] == 'setosa
         size=8, color="red", legend_label="Setosa")

p.circle(iris[iris['species'] == 'versicolor']['sepal_length'], iris[iris['species'] == 've
         size=8, color="green", legend_label="Versicolor")

p.circle(iris[iris['species'] == 'virginica']['sepal_length'], iris[iris['species'] == 'vir
         size=8, color="blue", legend_label="Virginica")

show(p)
```



# How to draw BokehJs charts ? (if type is Series!)

In [8]:
```
import pandas as pd
from bokeh.plotting import figure, show
from bokeh.models import ColumnDataSource

df_trend_status = {'significantly above': 22, 'above': 21, 'below': 6, 'significantly below
df_trend_status = pd.Series(df_trend_status)

p = figure(x_range=list(df_trend_status.index), plot_height=350, title="Trend Status Counts

source = ColumnDataSource(data=dict(x=list(df_trend_status.index), counts=list(df_trend_sta

p.vbar(x='x', top='counts', width=0.5, source=source, color="blue")

p.title.text_font_size = '16pt'
p.xaxis.major_label_text_font_size = '12pt'
p.yaxis.major_label_text_font_size = '12pt'
p.yaxis.axis_label = 'Counts'
p.yaxis.axis_label_text_font_size = '14pt'
p.xgrid.grid_line_color = None
p.y_range.start = 0

show(p)
```




In [ ]:
```
```