

## ▼ Bokeh By Virat Tiwari -

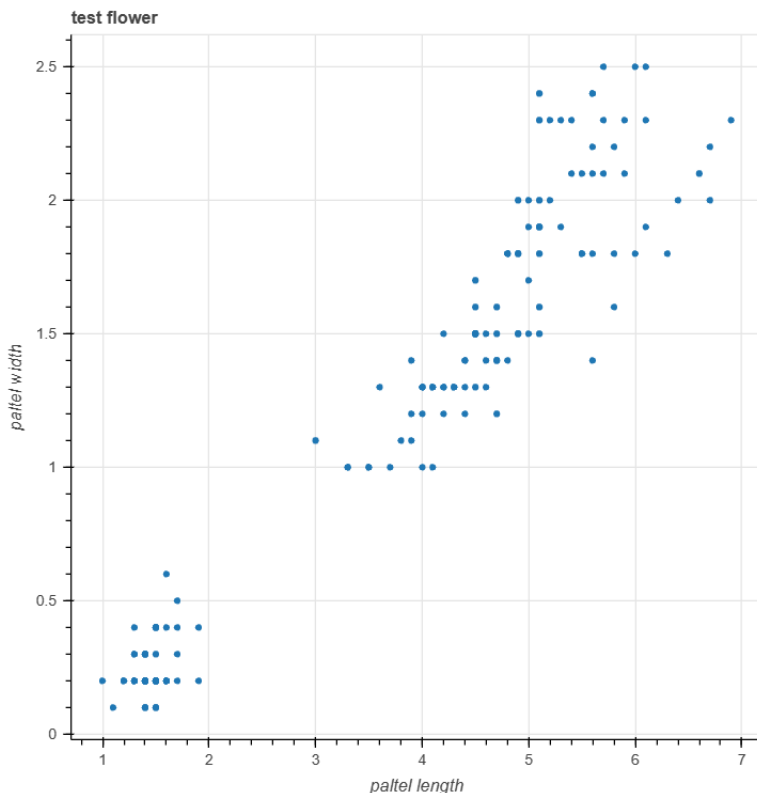
With the help of Data visualization , We can find out the Trends of data and get the Insights of data as well for better understanding the Bussiness . All visualization libraries are same , almost all libraries provides the same features as well .

```
import bokeh.io
import bokeh.plotting
bokeh.io.output_notebook()
```

```
pip install bokeh
```

```
Requirement already satisfied: bokeh in /usr/local/lib/python3.10/dist-packages (3.2.2)
Requirement already satisfied: Jinja2>=2.9 in /usr/local/lib/python3.10/dist-packages (from bokeh) (3.1.2)
Requirement already satisfied: contourpy>=1 in /usr/local/lib/python3.10/dist-packages (from bokeh) (1.1.1)
Requirement already satisfied: numpy>=1.16 in /usr/local/lib/python3.10/dist-packages (from bokeh) (1.23.5)
Requirement already satisfied: packaging>=16.8 in /usr/local/lib/python3.10/dist-packages (from bokeh) (23.2)
Requirement already satisfied: pandas>=1.2 in /usr/local/lib/python3.10/dist-packages (from bokeh) (1.5.3)
Requirement already satisfied: pillow>=7.1.0 in /usr/local/lib/python3.10/dist-packages (from bokeh) (9.4.0)
Requirement already satisfied: PyYAML>=3.10 in /usr/local/lib/python3.10/dist-packages (from bokeh) (6.0.1)
Requirement already satisfied: tornado>=5.1 in /usr/local/lib/python3.10/dist-packages (from bokeh) (6.3.2)
Requirement already satisfied: xyzservices>=2021.09.1 in /usr/local/lib/python3.10/dist-packages (from bokeh) (2023.10.0)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.10/dist-packages (from Jinja2>=2.9->bokeh) (2.1.3)
Requirement already satisfied: python-dateutil>=2.8.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=1.2->bokeh) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=1.2->bokeh) (2023.3.post1)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-packages (from python-dateutil>=2.8.1->pandas>=1.2->bokeh) (1.16.0)
```

```
from bokeh.plotting import figure,output_file,show
from bokeh.sampledata.iris import flowers
output_file("test.html")
p=figure(title="test flower")
p.xaxis.axis_label="paltel length"
p.yaxis.axis_label="paltel width"
p.circle(flowers["petal_length"],flowers["petal_width"])
show(p)
```



flowers

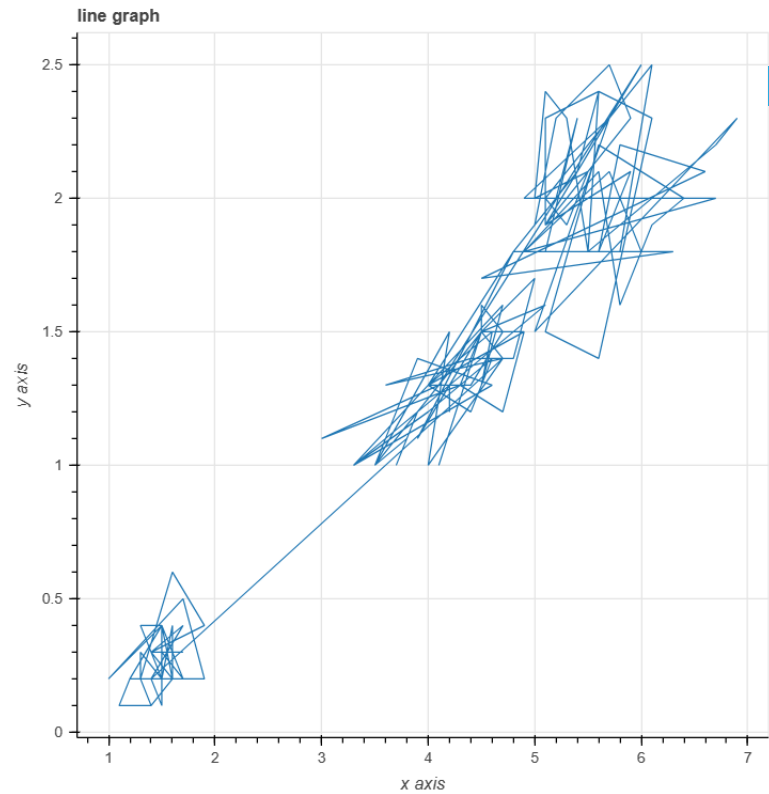
|     | sepal_length | sepal_width | petal_length | petal_width | species   |  |
|-----|--------------|-------------|--------------|-------------|-----------|--|
| 0   | 5.1          | 3.5         | 1.4          | 0.2         | setosa    |  |
| 1   | 4.9          | 3.0         | 1.4          | 0.2         | 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    |  |
| ... | ...          | ...         | ...          | ...         | ...       |  |
| 145 | 6.7          | 3.0         | 5.2          | 2.3         | virginica |  |
| 146 | 6.3          | 2.5         | 5.0          | 1.9         | virginica |  |
| 147 | 6.5          | 3.0         | 5.2          | 2.0         | virginica |  |
| 148 | 6.2          | 3.4         | 5.4          | 2.3         | virginica |  |
| 149 | 5.9          | 3.0         | 5.1          | 1.8         | virginica |  |

150 rows × 5 columns

```

from bokeh.plotting import figure,output_file,show
from bokeh.sampledata.iris import flowers
output_file("line.html")
p=figure(title="line graph")
p.xaxis.axis_label="x axis"
p.yaxis.axis_label="y axis"
p.line(flowers["petal_length"],flowers["petal_width"])
show(p)

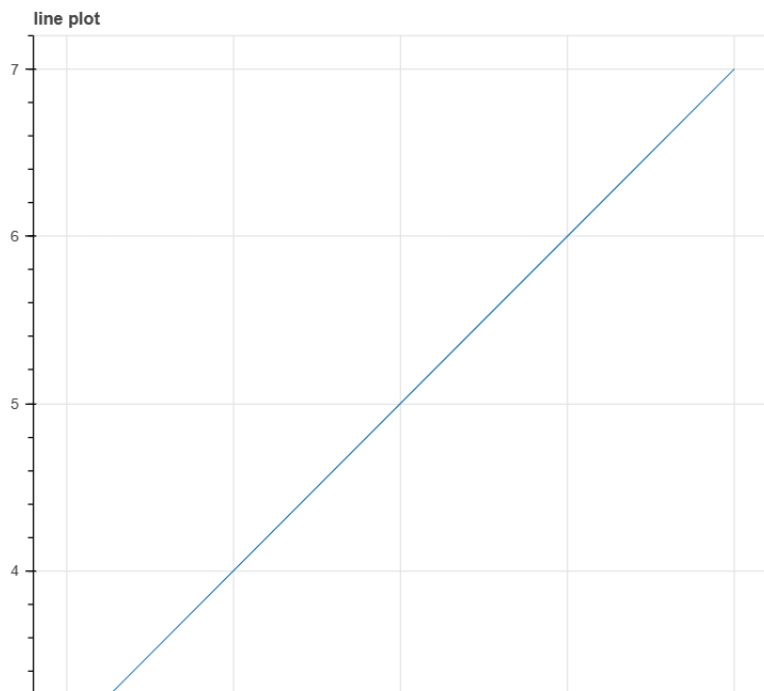
```



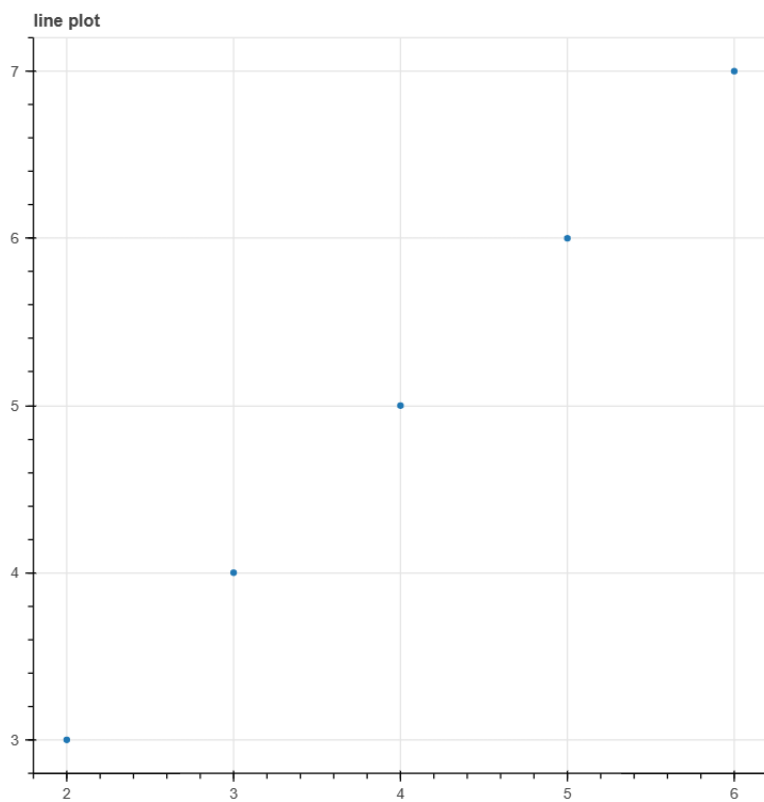
```

x=[2,3,4,5,6]
y=[3,4,5,6,7]
output_file("line.html")
p=figure(title="line plot")
p.line(x,y)
show(p)

```



```
x=[2,3,4,5,6]
y=[3,4,5,6,7]
output_file("line.html")
p=figure(title="line plot")
p.scatter(x,y)
show(p)
```



```
x=[2,3,4,5,6]
y=[3,4,5,6,7]
output_file("line.html")
p=figure(title="line plot")
p.scatter(x,y)
show(p)
```

THANK YOU SO MUCH !!

YOURS VIRAT TIWARI :)