Matplotlib 08_Belajar Scatter Plot

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0.1 Scatter Plot / Scatter Chart

Dalam sesi ini kita akan mempelajari cara membuat scatter plot dengan matplotlib.

```
[1]: %matplotlib inline
```

```
[2]: import matplotlib
     import matplotlib.pyplot as plt

     print(matplotlib.__version__)
```

```
3.3.4
```

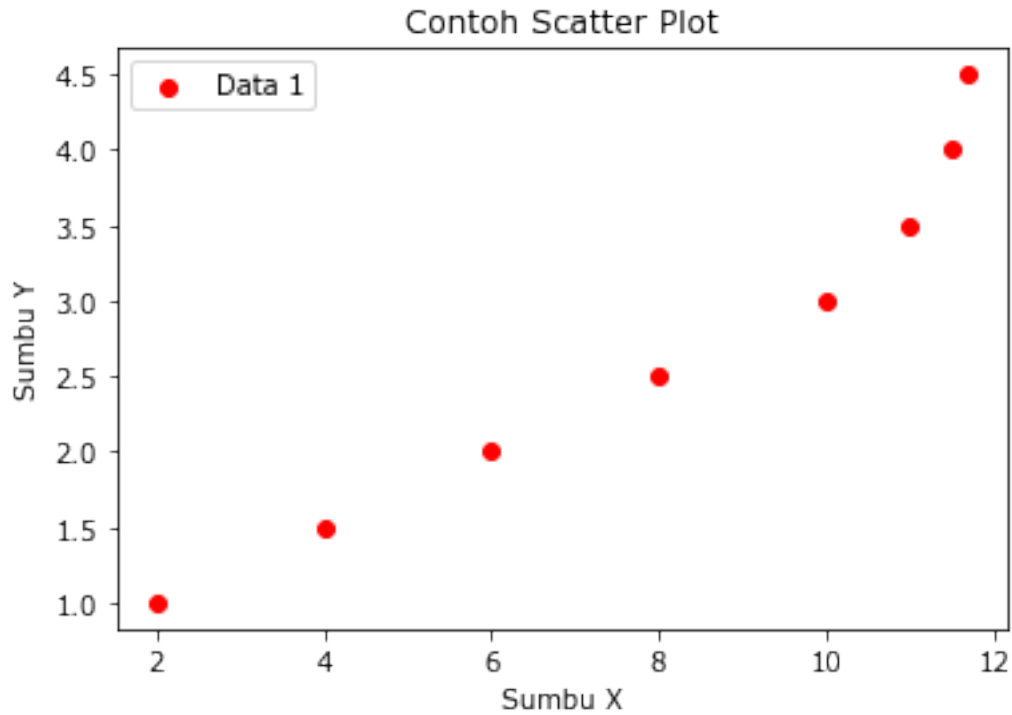## 0.2 1. Simple Scatter Plot

```
[3]: x = [2, 4, 6, 8, 10, 11, 11.5, 11.7]
     y = [1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5]
```

```
[4]: plt.scatter(x, y, label = 'Data 1', color = 'r')

     plt.xlabel('Sumbu X')
     plt.ylabel('Sumbu Y')
     plt.title('Contoh Scatter Plot')

     plt.legend()

     plt.show()
```

Contoh Scatter Plot

0.3   2. Multiple Scatter Plot

```
[5]: x1 = [2, 4, 6, 8, 10, 11, 11.5, 11.7]
     y1 = [1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5]

     x2 = [8, 8.5, 9, 9.5, 10, 10.5, 11]
     y2 = [3, 3.5, 3.7, 4, 4.5, 5, 5.2]
```
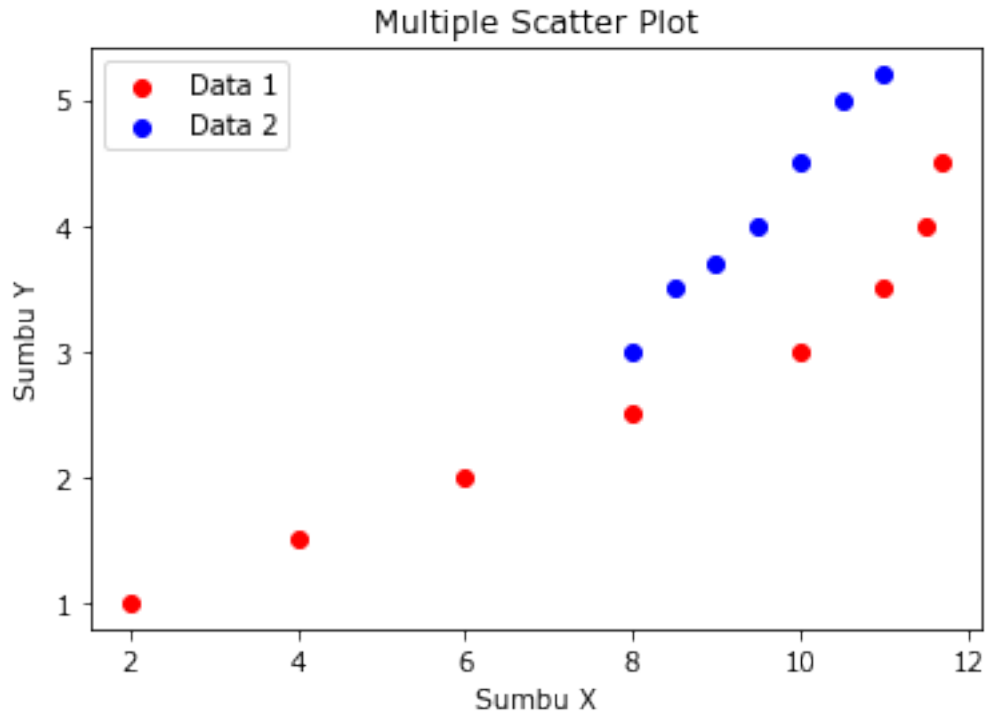
```
[6]: plt.scatter(x1, y1, label = 'Data 1', color = 'r')
     plt.scatter(x2, y2, label = 'Data 2', color = 'b')

     plt.xlabel('Sumbu X')
     plt.ylabel('Sumbu Y')
     plt.title('Multiple Scatter Plot')

     plt.legend()

     plt.show()
```
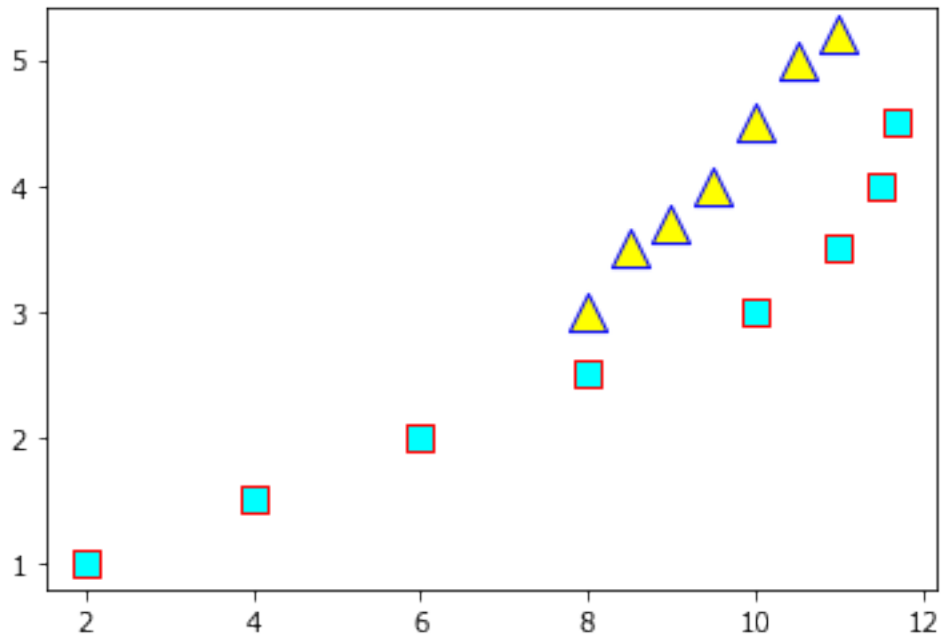
0.4 3. Pengaturan Marker

```
[7]: x1 = [2, 4, 6, 8, 10, 11, 11.5, 11.7]
     y1 = [1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5]

     x2 = [8, 8.5, 9, 9.5, 10, 10.5, 11]
     y2 = [3, 3.5, 3.7, 4, 4.5, 5, 5.2]
```

```
[8]: plt.scatter(x1, y1,
                  color = 'cyan',
                  linewidth = 1,
                  marker = 's',
                  edgecolor = 'red',
                  s = 100)

     plt.scatter(x2, y2,
                  color = 'yellow',
                  linewidth = 1,
                  marker = '^',
                  edgecolor = 'blue',
                  s = 200)

     plt.show()
```

0.5 4. Scatter Plot untuk data multi dimensi

```
[9]: from sklearn.datasets import load_iris
     iris = load_iris()
```

```
[10]: features
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-10-224628ecf868> in <module>
----> 1 features

NameError: name 'features' is not defined
```

```
[ ]: iris.keys()
```

```
[ ]: iris['data']
```

```
[ ]: iris['feature_names']
```

```
[ ]: features = iris['data'].T
     features
```

```
[ ]: iris['target']
```

```
[ ]: iris['target_names']
```

```
[ ]: plt.scatter(features[0], features[1],
              alpha = 0.2,
              s = 100*features[3],
              c = iris['target'],
              cmap = 'viridis')

     plt.xlabel(iris['feature_names'][0])
     plt.ylabel(iris['feature_names'][1])
     plt.title('Iris Dataset')

     plt.colorbar()

     plt.show()
```