

How can I adjust the axis label position in Matplotlib?

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May 6, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I adjust the axis label position in Matplotlib?*.
PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=143251>

The process of adjusting the axis label position in Matplotlib involves modifying the position and alignment of the labels on the X and Y axes. This can be achieved by using the "set_xlabel" and "set_ylabel" methods, along with various parameters such as "rotation" and "ha" (horizontal alignment). By adjusting these parameters, the axis labels can be positioned at desired locations and orientations to enhance the clarity and readability of the plot. Additionally, Matplotlib offers various customization options to further fine-tune the axis label position according to individual preferences.

Adjust Axis Label Position in Matplotlib

You can use the following basic syntax to adjust axis label positions in Matplotlib:

#adjust y-axis label position

```
ax.yaxis.set_label_coords(-.1, .5)
```

#adjust x-axis label position

```
ax.xaxis.set_label_coords(.5, -.1)
```

The following examples show how to use this syntax in practice.

Example 1: Adjust X-Axis Label Position

The following code shows how to create a plot in Matplotlib and adjust the location of the x-axis label position only:

```
import matplotlib.pyplot as plt
```

```
#define data
```

```
x =
```

```
y =
```

```
#create scatterplot
```

```
fig, ax = plt.subplots()
```

```
ax.scatter(x, y)
```

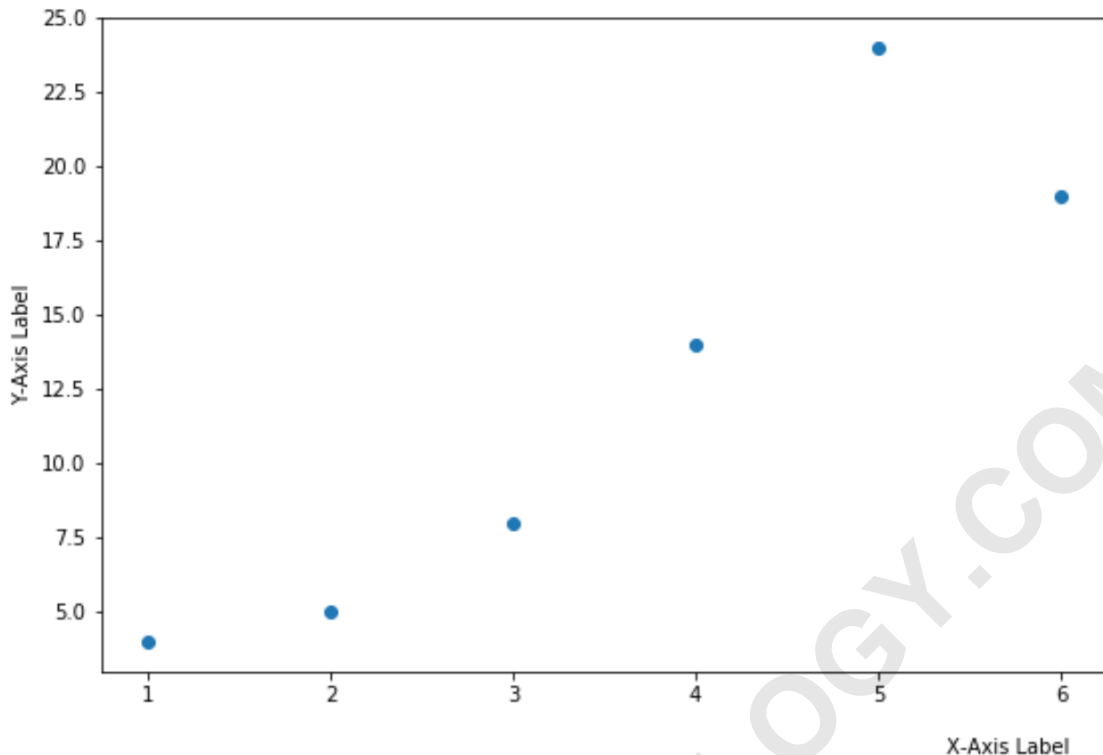
```
#add axis labels
```

```
ax.set_ylabel('Y-Axis Label')
```

```
ax.set_xlabel('X-Axis Label')
```

```
#adjust position of x-axis label
```

```
ax.xaxis.set_label_coords(.9, -.1)
```



Note that the axis coordinate system uses (0, 0) to represent the bottom left corner of the plot, (0.5, 0.5) to represent the center, and (1, 1) to represent the top right corner.

Example 2: Adjust Y-Axis Label Position

The following code shows how to create a plot in Matplotlib and adjust the location of the y-axis label position only:

```
import matplotlib.pyplot as plt
```

```
#define data
```

x =

y =

#create scatterplot

fig, ax = plt.subplots()

ax.scatter(x, y)

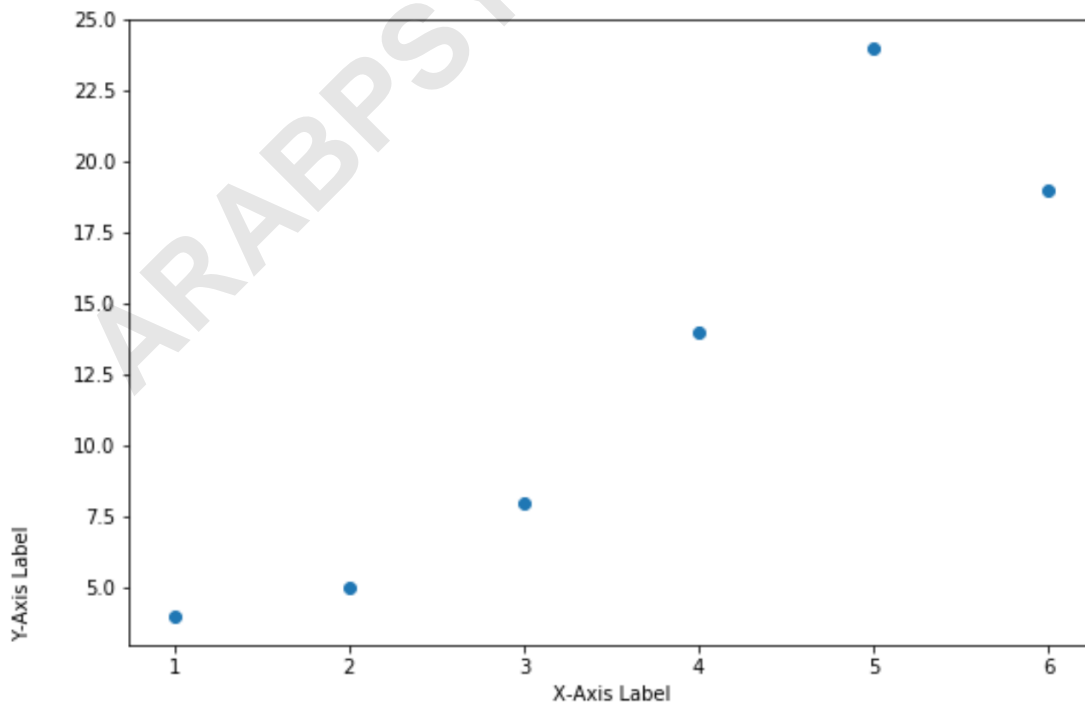
#add axis labels

ax.set_ylabel('Y-Axis Label')

ax.set_xlabel('X-Axis Label')

#adjust position of x-axis label

ax.yaxis.set_label_coords(-.1, .1)



Example 3: Adjust Both Axis Label Positions

The following code shows how to create a plot in Matplotlib and adjust the location of both axis label positions:

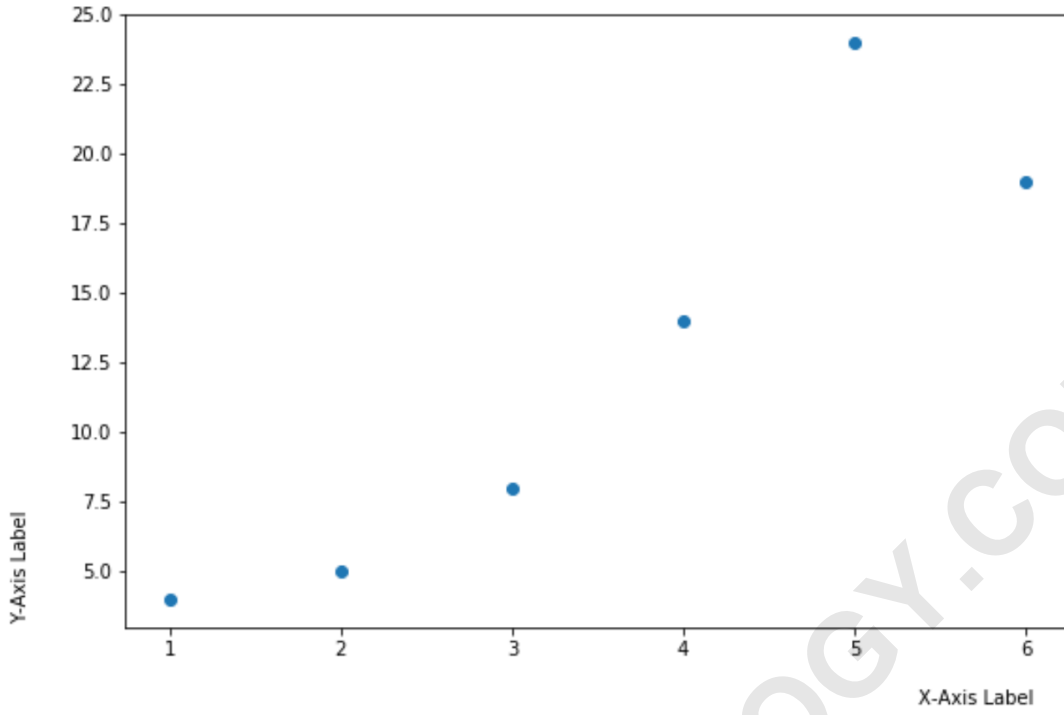
```
import matplotlib.pyplot as plt

#define data
x =
y =

#create scatterplot
fig, ax = plt.subplots()
ax.scatter(x, y)

#add axis labels
ax.set_ylabel('Y-Axis Label')
ax.set_xlabel('X-Axis Label')

#adjust position of both axis labels
ax.yaxis.set_label_coords(-.1, .1)
ax.xaxis.set_label_coords(.9, -.1)
```



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