

How can I change the position of a legend in Matplotlib?

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Matplotlib is a popular Python library used for creating high-quality visualizations. One of the common tasks when creating charts and graphs is to adjust the position of the legend, which is a visual representation of the labels and colors used in the plot. In order to change the position of a legend in Matplotlib, you can use the 'loc' parameter and provide a specific location code such as 'upper left', 'lower right', or 'center'. Alternatively, you can also use the 'bbox_to_anchor' parameter to specify the exact coordinates of the legend. By utilizing these parameters, users can easily customize the position of the legend to best fit their visualization and improve its overall appearance.

Change the Position of a Legend in Matplotlib

To change the position of a legend in Matplotlib, you can use the `plt.legend()` function.

For example, you can use the following syntax to place the legend in the upper left corner of the plot:

```
plt.legend(loc='upper left')
```

The default location is "best" - which is where Matplotlib automatically finds a location for the legend based on where it avoids covering any data points.

However, you can specify any of the following legend locations:

upper right upper left lower left lower right right center
left center right lower center upper center center

You can also use the `bbox_to_anchor()` argument to place the legend outside of the plot. For example, you can use the following syntax to place the legend in the top right corner outside of the plot:

```
plt.legend(bbox_to_anchor=(1.05, 1), loc='upper left', borderaxespad=0)
```

The following examples show how to use each of these methods in practice.

Example 1: Change Legend Position Inside of Matplotlib Plot

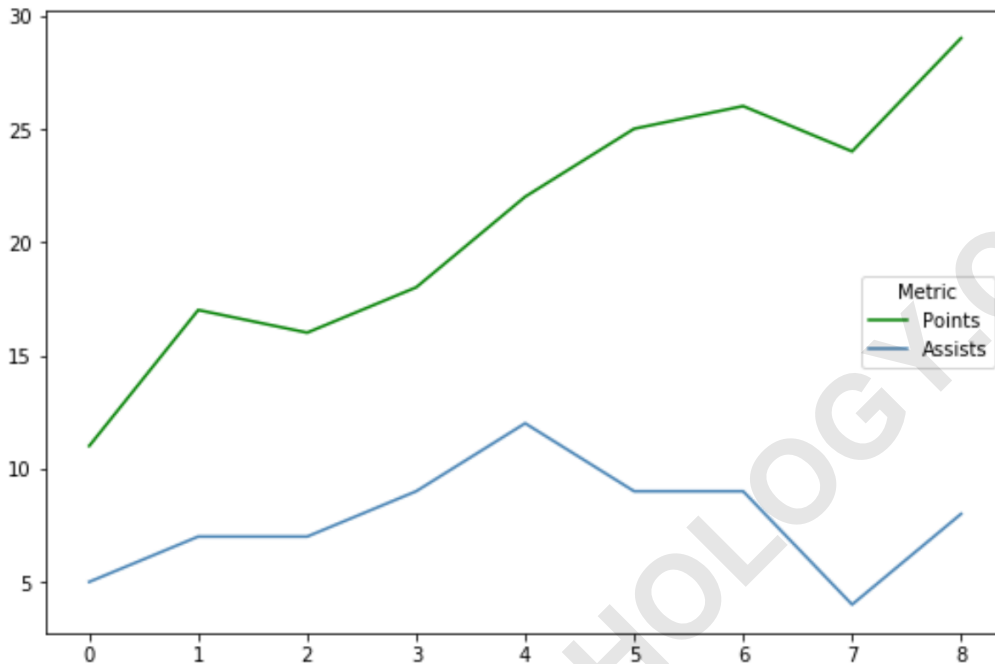
The following code shows how to place the legend inside the center right portion of a Matplotlib line plot:

```
import pandas as pd
import matplotlib.pyplot as plt

#create data
df = pd.DataFrame({'points': ,
'assists': })

#add lines to plot
plt.plot(df, label='Points', color='green')
plt.plot(df, label='Assists', color='steelblue')
```

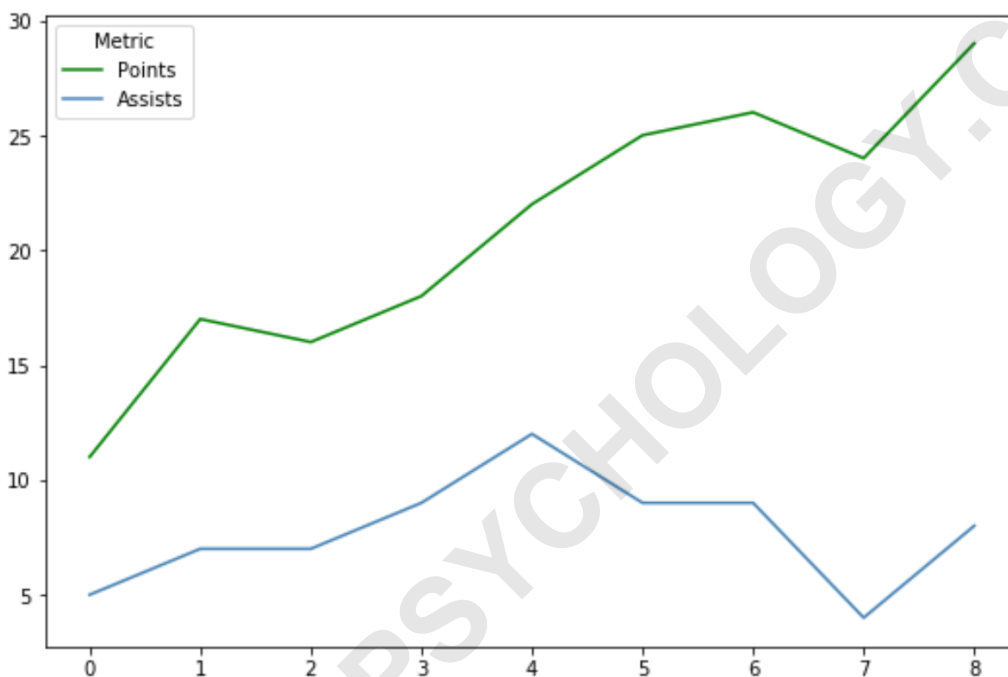
```
#place legend in center right of plot  
plt.legend(loc='center right', title='Metric')
```



And the following code shows how to place the legend inside the upper left portion of a Matplotlib plot:

```
import pandas as pd  
import matplotlib.pyplot as plt  
  
#create data  
df = pd.DataFrame({'points': ,  
'assists': })  
  
#add lines to plot
```

```
plt.plot(df, label='Points', color='green')  
plt.plot(df, label='Assists', color='steelblue')  
  
#place legend in center right of plot  
plt.legend(loc='upper left', title='Metric')
```



Example 2: Change Legend Position Outside of Matplotlib Plot

For example, here's how to place the legend outside the top right corner of the plot:

```
import pandas as pd  
import matplotlib.pyplot as plt  
  
#create data
```

```
df = pd.DataFrame({'points': ,  
'assists': })
```

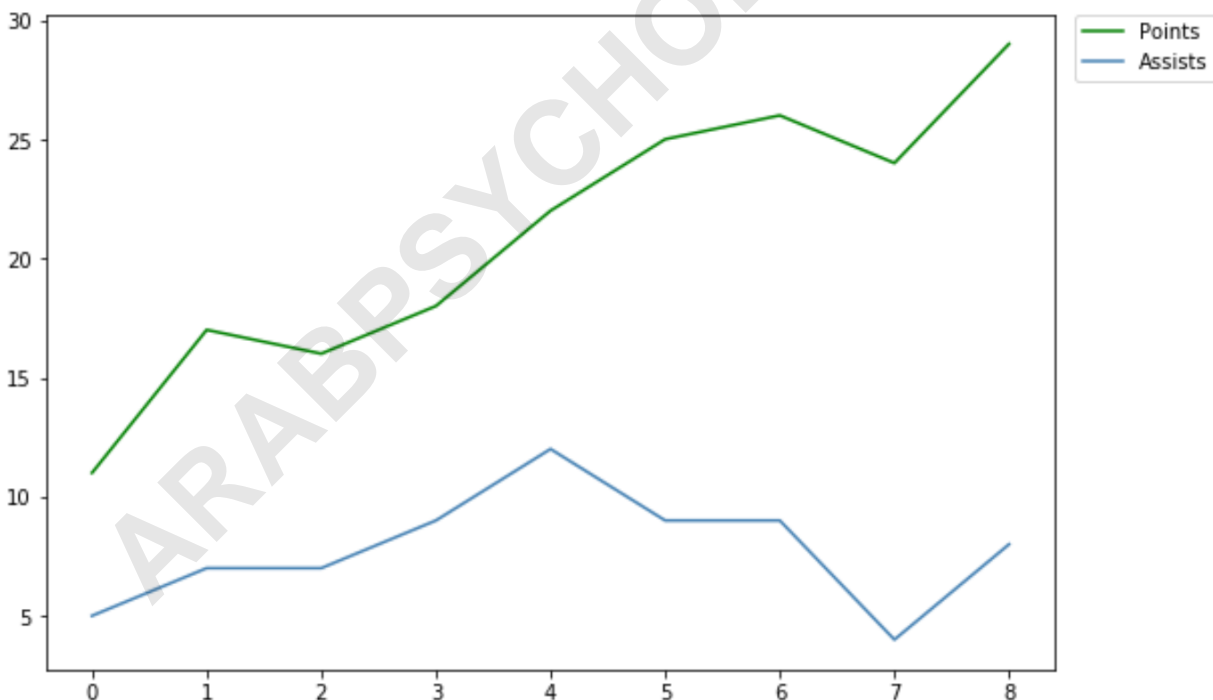
```
#add lines to plot
```

```
plt.plot(df, label='Points', color='green')
```

```
plt.plot(df, label='Assists', color='steelblue')
```

```
#place legend in center right of plot
```

```
plt.legend(bbox_to_anchor=(1.02, 1), loc='upper left',  
borderaxespad=0)
```



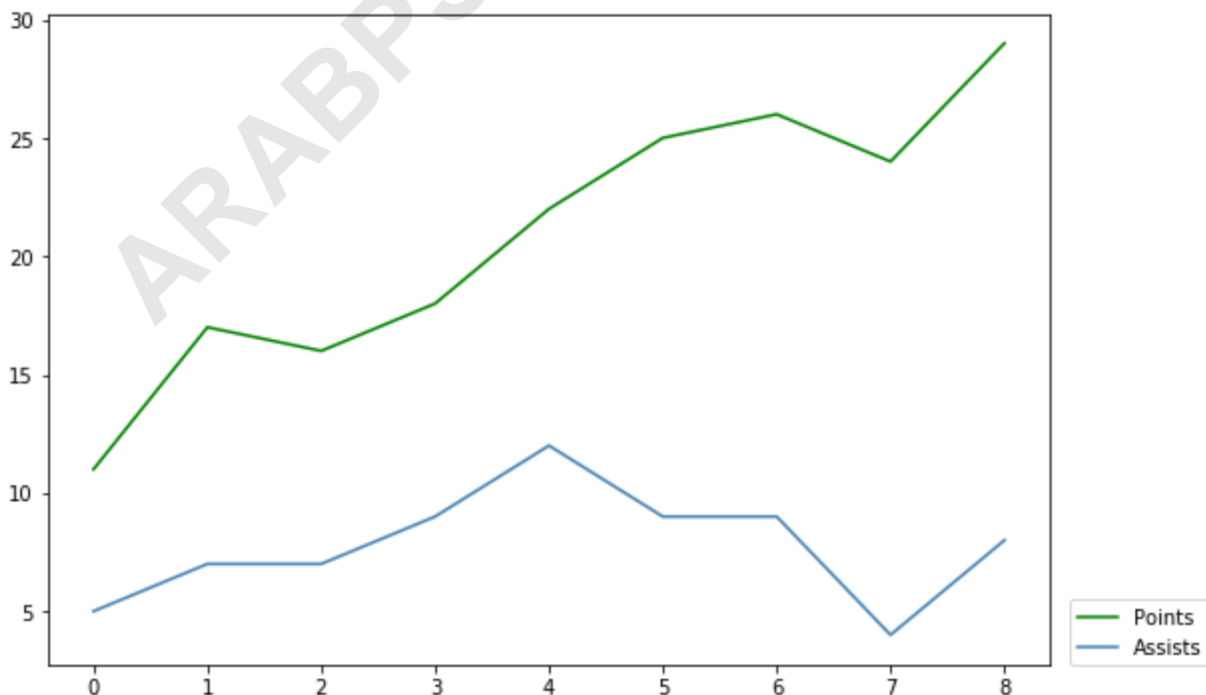
And here's how to place the legend outside the bottom right corner of the plot:

```
import pandas as pd
import matplotlib.pyplot as plt

#create data
df = pd.DataFrame({'points': ,
'assists': })

#add lines to plot
plt.plot(df, label='Points', color='green')
plt.plot(df, label='Assists', color='steelblue')

#place legend in center right of plot
plt.legend(bbox_to_anchor=(1.02, 0.1), loc='upper left',
borderaxespad=0)
```



Refer to the for a detailed explanation of the `bbox_to_anchor()` argument.

How to Add a Title to Legend in Matplotlib

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