How can I add a vertical line at a specific date in Matplotlib?

Authored by

stats writer

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In order to add a vertical line at a specific date in Matplotlib, you can use the axvline() function. This function allows you to specify the date at which you want the line to be placed, as well as other parameters such as color and line width. This can be useful for visualizing important events or milestones in a time series plot. With the flexibility of Matplotlib, you can easily customize the appearance of the line to suit your needs. Overall, the axvline() function provides a simple and effective way to add a vertical line at a specific date in your plot.

Add Vertical Line at Specific Date in Matplotlib

You can use the axvline() function to along with the datetime() function to add a vertical line at a specific date in Matplotlib:

```
import datetime
import matplotlib.pyplotas plt

plt.axvline(datetime.datetime(2023, 1, 5))
```

This particular example adds a vertical line at 1/5/2023 on the x-axis of a plot in Matplotlib.

The following example shows how to use this syntax in practice.

Example: Add Vertical Line at Specific Date in Matplotlib

Suppose we have the following pandas DataFrame that contains information about the total sales made on

eight consecutive days at some company:

```
import datetime
import numpy as np
import pandas as pd

#create DataFrame
df = pd.DataFrame({'date': np.array(),
'sales': })

#view DataFrame
print(df)

date sales
0 2023-01-01 3
1 2023-01-02 4
2 2023-01-03 4
3 2023-01-04 7
4 2023-01-05 8
5 2023-01-06 9
6 2023-01-07 14
7 2023-01-08 17
```

We can use the following code to create a plot of sales by day and add a vertical line at the date 1/5/2023 on the

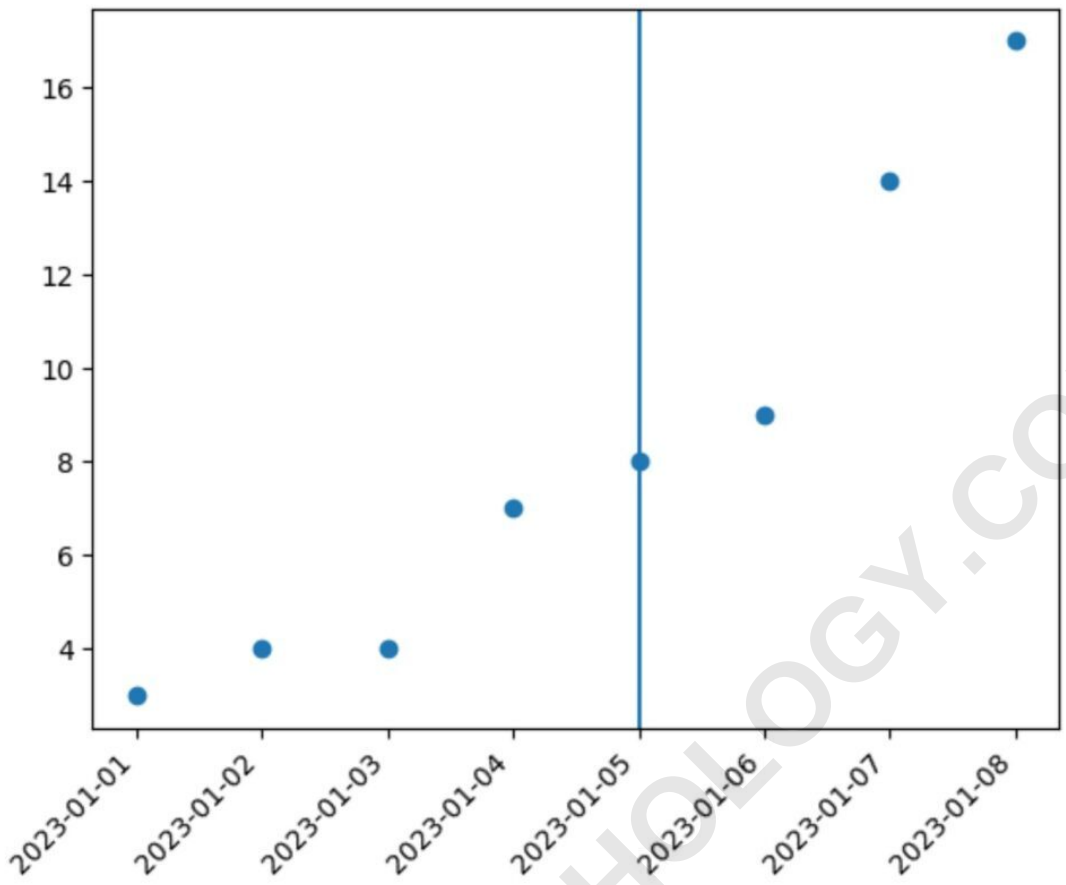
x-axis:

import matplotlib.pyplotas plt

#plot sales by date
plt.plot_date(df.date, df.sales)

#rotate x-axis ticks 45 degrees and right-aline
plt.xticks(rotation=45, ha='right')

#add vertical line at 1/5/2023
plt.axvline(datetime.datetime(2023, 1, 5))



Notice that a vertical line has been added to the plot at the date 1/5/2023 on the x-axis.

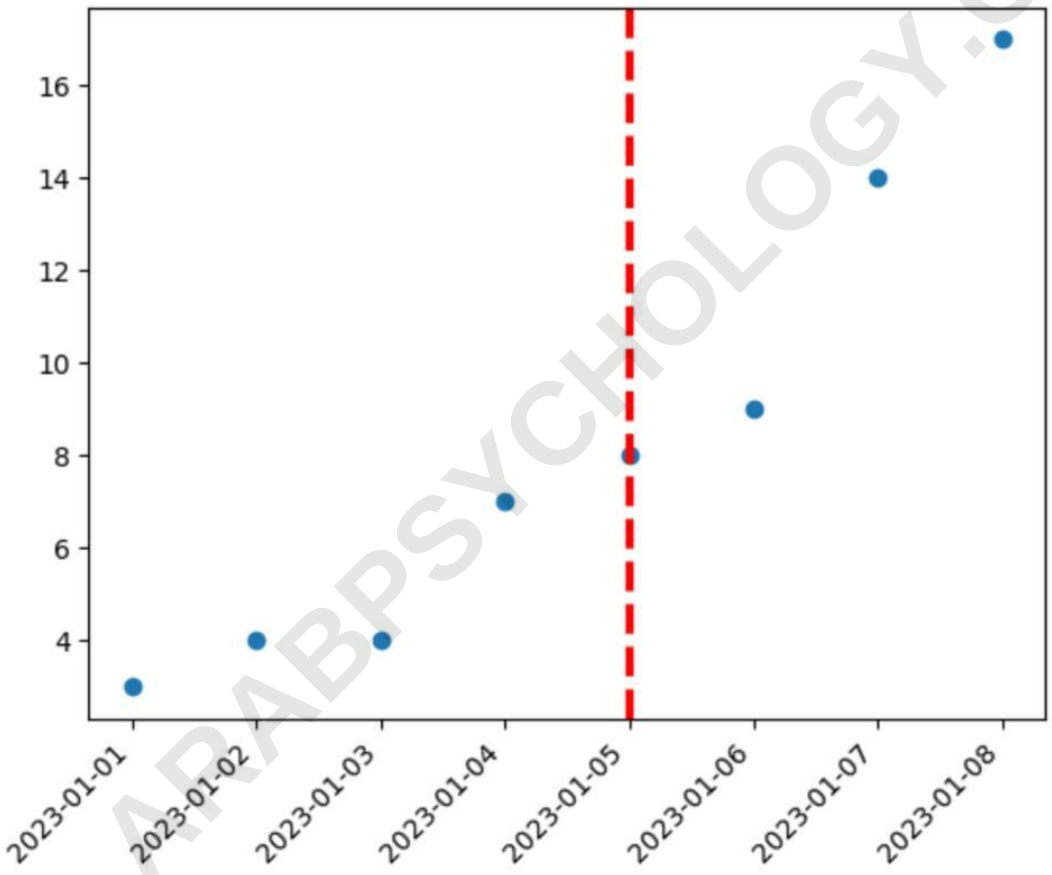
Also note that you can use the color, linewidth, and linestyle arguments to customize the appearance of the line:

```
import matplotlib.pyplotas plt

#plot sales by date
plt.plot_date(df.date, df.sales)
```

#rotate x-axis ticks 45 degrees and right-aline
plt.xticks(rotation=45, ha='right')

#add customized vertical line at 1/5/2023
plt.axvline(datetime.datetime(2023, 1, 5), color='red', linewidth=3, linestyle='--')



Notice that the vertical line is now red, slightly wider than the previous example, and dashed.

Feel free to modify the appearance of the vertical line to

make it look however you'd like.