

How can I modify the X-axis range in a Pandas histogram?

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The process of modifying the X-axis range in a Pandas histogram involves adjusting the minimum and maximum values displayed on the X-axis. This can be done by using the "xlim" function and specifying the desired range. This allows for better customization and visualization of the data on the histogram. By changing the X-axis range, it is possible to focus on specific data points or patterns, and improve the overall understanding of the data being presented. This feature is particularly useful for data analysis and interpretation in various fields such as finance, marketing, and research.

Modify the X-Axis Range in Pandas Histogram

You can use the range argument to modify the x-axis range in a pandas histogram:

```
plt.hist(df, range=)
```

In this particular example, we set the x-axis to range from 10 to 30.

The following example shows how to use the range argument in practice.

Example: Modifying the X-Axis Range in Pandas Histogram

Suppose we have the following pandas DataFrame:

```
import pandas as pd
```

```
import numpy as np
```

```
#make this example reproducible
```

```
np.random.seed(1)
```

```
#create DataFrame
```

```
df = pd.DataFrame({'team': np.repeat('A', 100),  
'points': np.random.normal(loc=20, scale=2, size=300)})
```

```
#view head of DataFrame
```

```
print(df.head())
```

```
team points
```

```
0 A 23.248691
```

```
1 A 18.776487
```

```
2 A 18.943656
```

```
3 A 17.854063
```

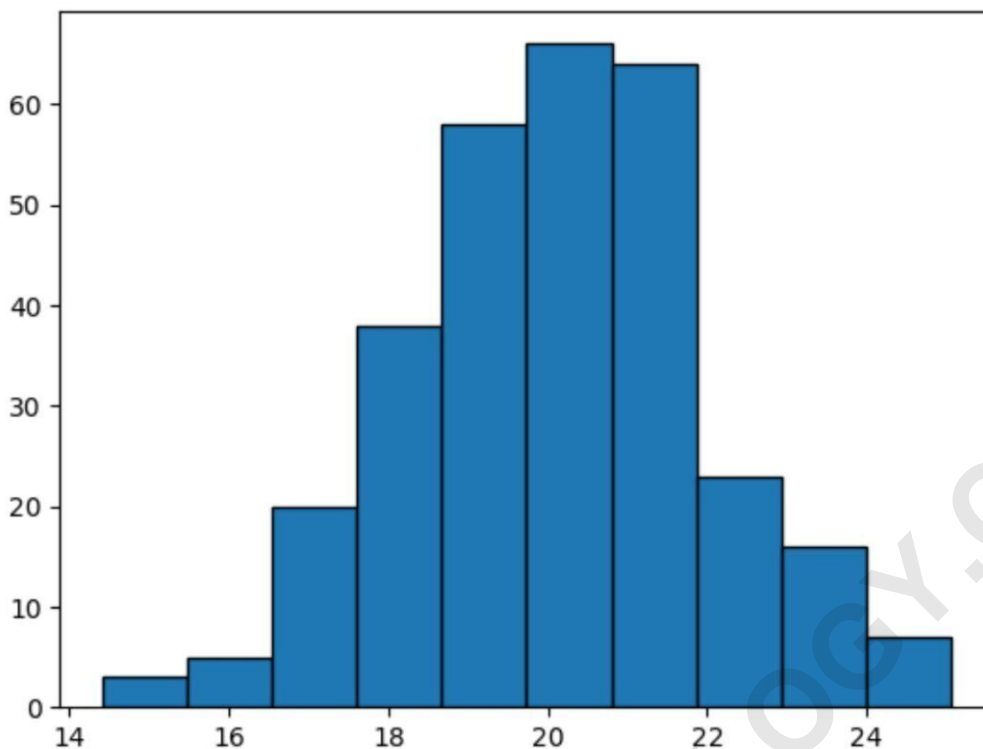
```
4 A 21.730815
```

If we create a histogram for the points variable, pandas will automatically choose the range for the x-axis based on the minimum and maximum values of the points variable:

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

```
#create histogram for points variable
```

```
plt.hist(df, edgecolor='black')
```



The x-axis ranges from 14 to 25.

We can use the function to view the minimum and maximum values for the points variable:

#summarize distribution of points variable

df.describe()

count 300.000000

mean 20.148800

std 1.890841

min 14.413830

25% 18.818254

50% 20.176352

75% 21.372843

max 25.056651

Name: points, dtype: float64

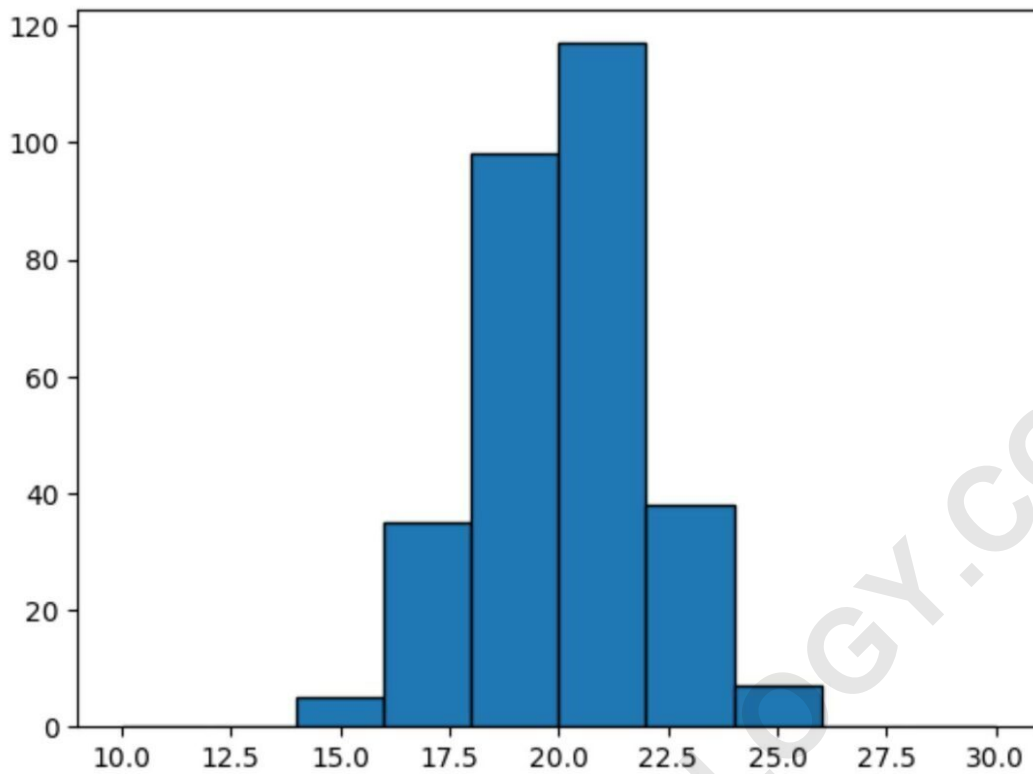
We can see that the minimum value is 14.41 and the maximum value is 25.06, which explains why the x-axis in the plot currently ranges from 14 to 25.

However, we can use the range argument to force the x-axis to range from 10 to 30 instead:

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

```
#create histogram for points variable with custom x-axis range
```

```
plt.hist(df, edgecolor='black', range=)
```



The following tutorials explain how to perform other common tasks in pandas: