

# How do I create a histogram from a Pandas Series?

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## RECOMMENDED CITATION

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To create a histogram from a Pandas Series, you can use the built-in function `.hist()`. This function plots a frequency distribution of the data in the Series, with the x-axis representing the values and the y-axis representing the frequency of each value. This allows for visualizing the distribution and identifying patterns or outliers in the data. The histogram can be customized by adjusting the number of bins, colors, and labels. It is a useful tool for data analysis and can be easily created using the Pandas library in Python.

## Create a Histogram from a Pandas Series

You can use the following basic syntax to create a histogram from a pandas Series:

```
my_series.plot(kind='hist')
```

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

**Note:** If you are using an online Python notebook and don't see any histogram appear after using this syntax, you may need to specify first.

### Example 1: Create Frequency Histogram

The following code shows how to create a frequency histogram from a pandas Series:

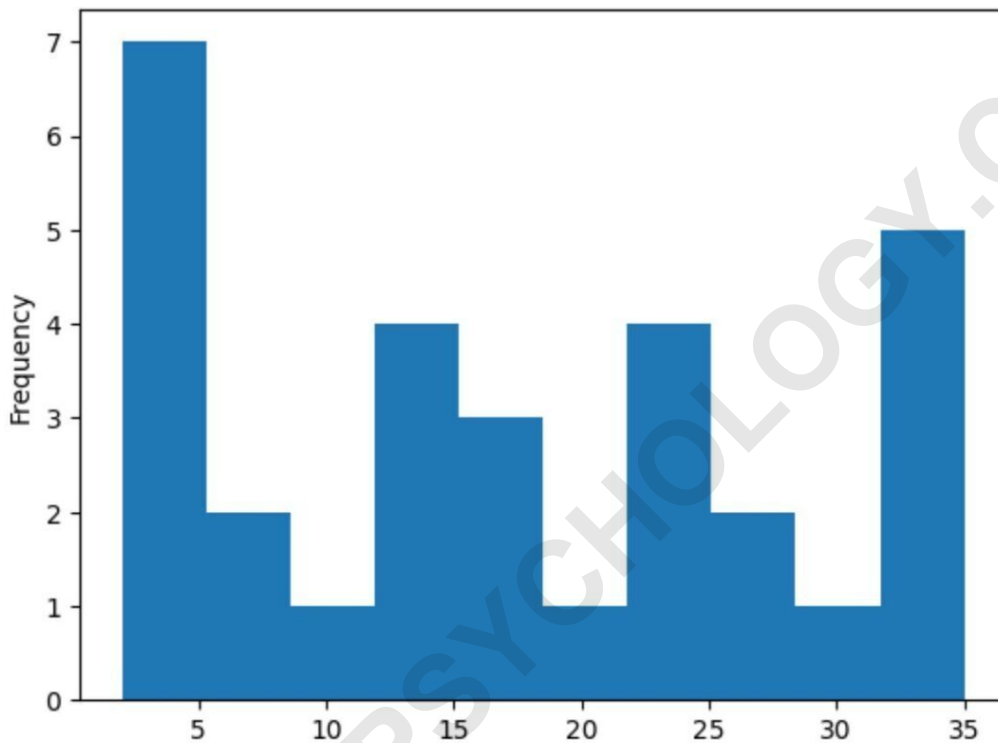
```
import pandas as pd
```

```
#create Series
```

```
data = pd.Series()
```

```
#create histogram from Series
```

```
data.plot(kind='hist')
```



The x-axis displays the values for the pandas Series while the y-axis displays the frequency of each value.

**Example 2: Create Density Histogram**

To create a density histogram from a pandas Series, we can specify `density=True` within the `plot()` function:

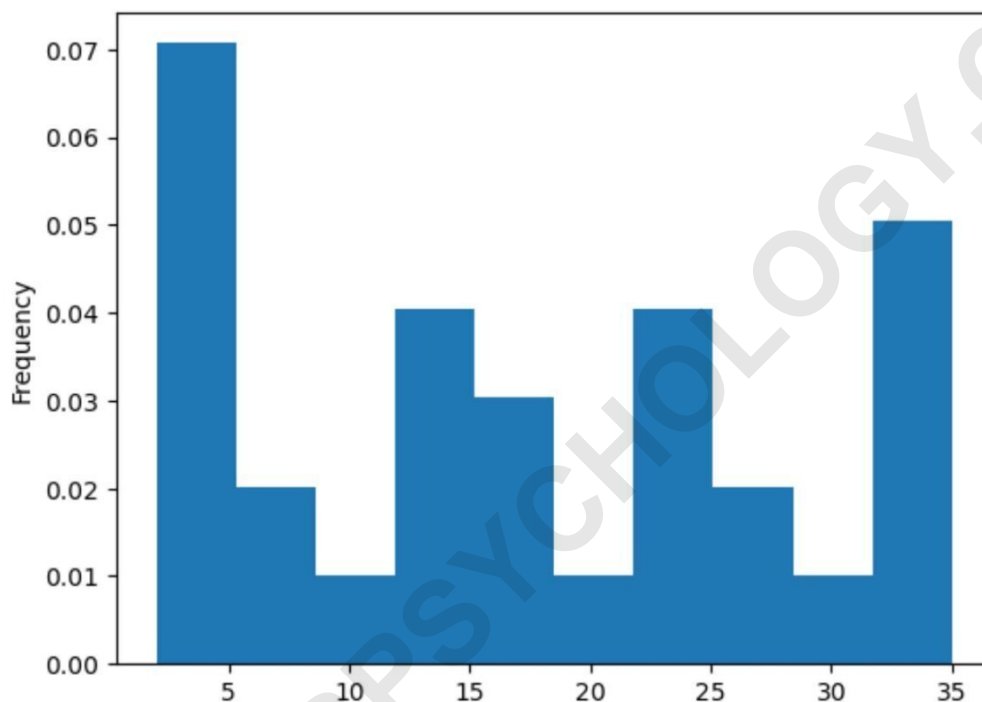
```
import pandas as pd
```

```
#create Series
```

```
data = pd.Series()
```

```
#create histogram from Series
```

```
data.plot(kind='hist', density=True)
```

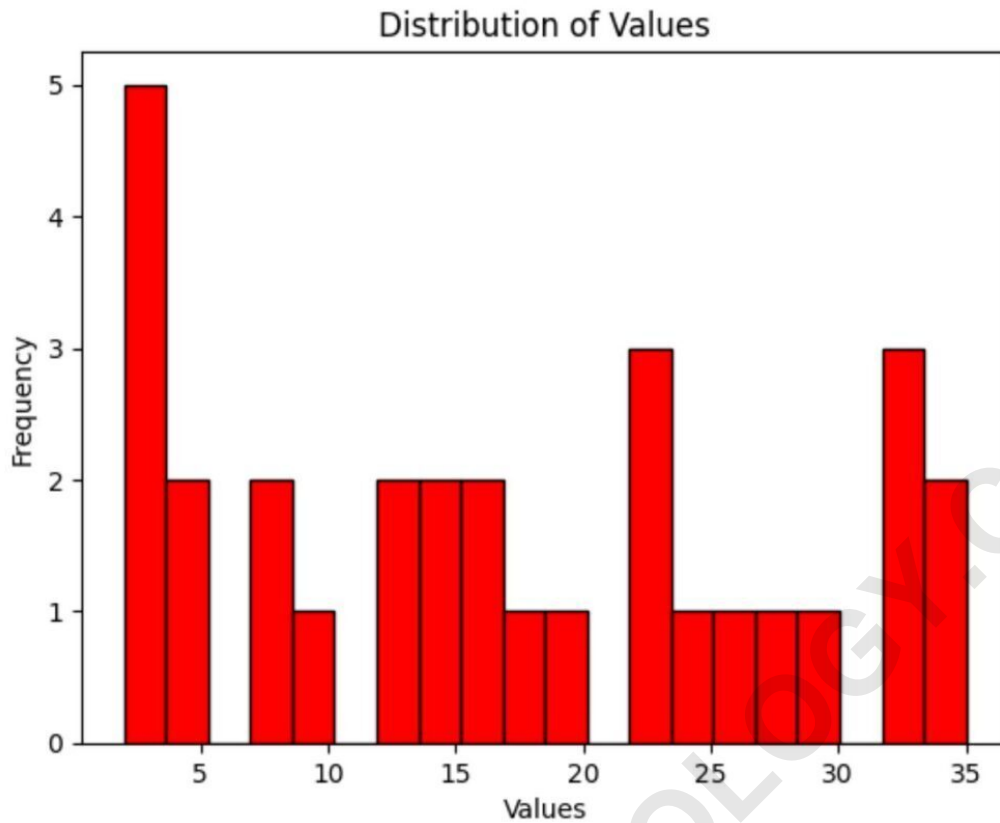


The x-axis displays the values for the pandas Series while the y-axis displays the density.

### Example 3: Create Custom Histogram

Lastly, we can use the following syntax to customize the color of the bars in the histogram, the number of bins used, the axis labels, and the plot title:

```
import pandas as pd  
  
#create Series  
data = pd.Series()  
  
#create histogram with custom color, edgcolor, and  
number of bins  
my_hist = data.plot(kind='hist', color='red',  
edgcolor='black', bins=20)  
  
#add x-axis label  
my_hist.set_xlabel('Values')  
  
#add title  
my_hist.set_title('Distribution of Values')
```



**The following tutorials explain how to create other common plots in Python:**