

How can the hue parameter be utilized in creating histograms using Seaborn?

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The hue parameter in Seaborn allows for the creation of histograms with multiple categories displayed in different colors, making it useful for visualizing and comparing data from different groups. By assigning a variable to the hue parameter, the histogram can be divided into subgroups based on that variable, allowing for a more comprehensive understanding of the data. This feature is particularly useful in data analysis and presentation, as it allows for the identification of patterns and trends within the data. Overall, the hue parameter in Seaborn adds a layer of depth and insight to histogram creation, making it a powerful tool for data visualization.

Seaborn: Use hue Parameter in Histograms

You can use the hue parameter when creating histograms in seaborn to color the bars in the histogram based on the value of some specific variable.

You can use the following basic syntax to do so:

```
import seaborn as sns
```

```
sns.histplot(data=df, x='points', hue='team')
```

This particular example creates a histogram for the variable points in which the bars are colored based on the value of the team variable.

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

Example: Using hue Parameter in Seaborn Histogram

Suppose we have the following pandas DataFrame that shows the points scored by basketball players on two different teams:

```
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.concatenate((np.random.randn(50), np.random.randn(50)))})

#view head of DataFrame
print(df.head())
```

	team	points
0	A	18.248691
1	A	13.776487
2	A	13.943656
3	A	12.854063
4	A	16.730815

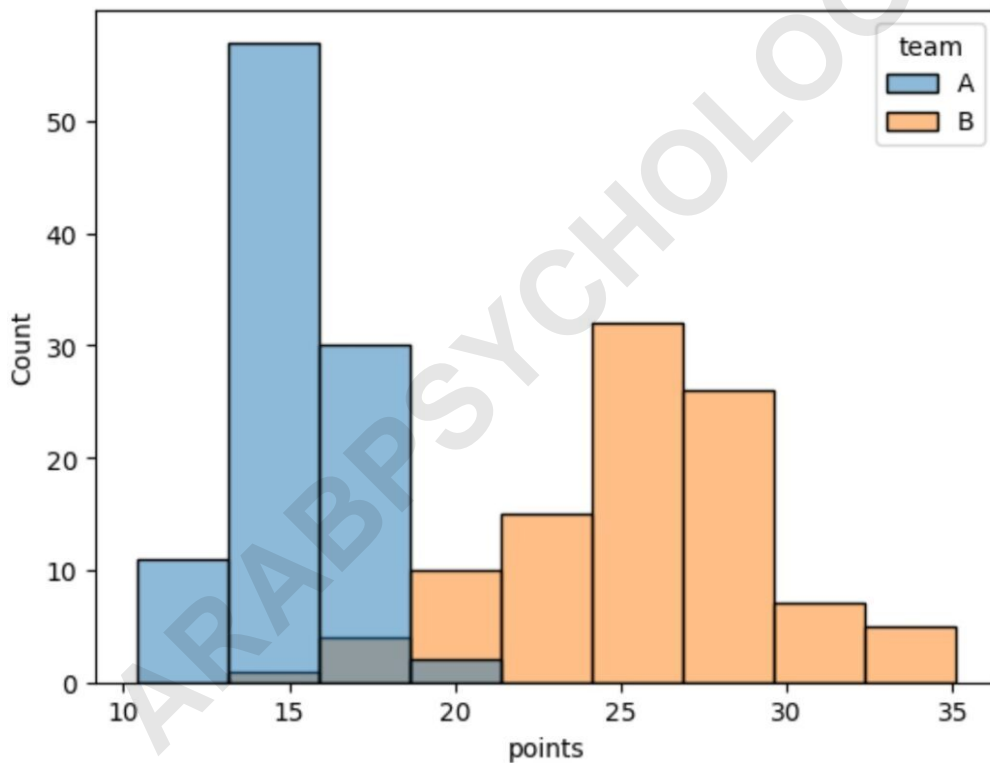
We can use the seaborn histplot() function with the hue

parameter to create histograms of the points variable, grouped by the team variable:

```
import seaborn as sns
```

```
#create histogram to visualize distribution of points by team
```

```
sns.histplot(data=df, x='points', hue='team')
```



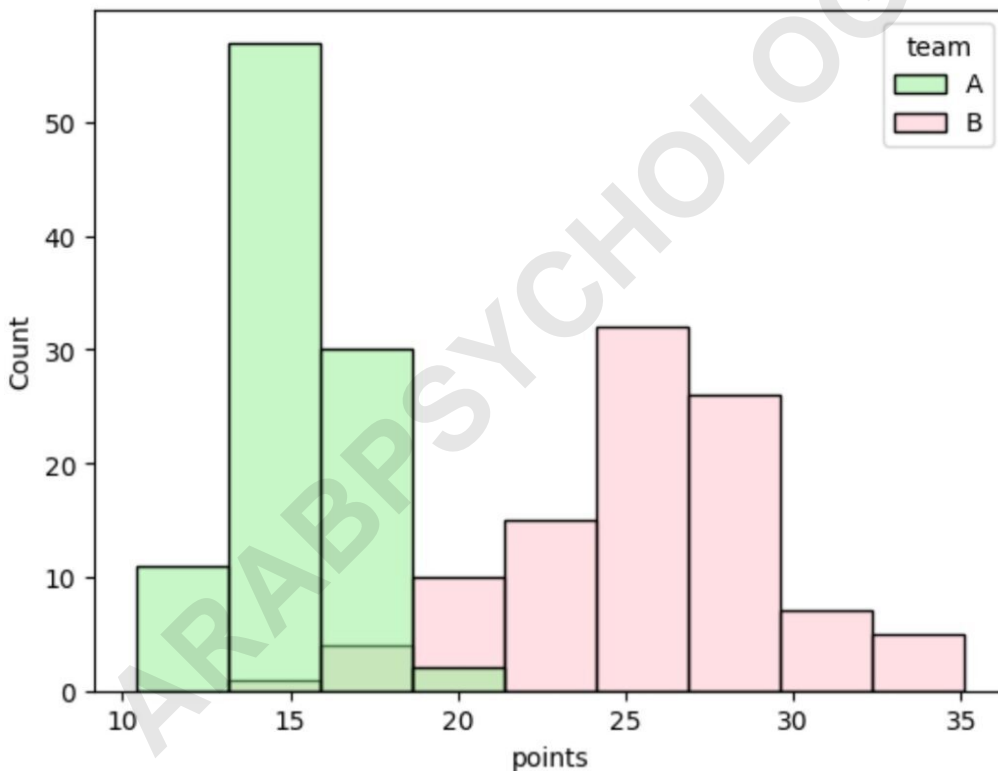
The resulting plot contains overlapping histograms whose colors are based on the values in the team column.

Note that we can also use the palette argument to specify the colors to be used in the histogram:

```
import seaborn as sns
```

```
#create histogram to visualize distribution of points by team
```

```
sns.histplot(data=df, x='points', hue='team', palette=)
```



The two histograms now use light green and pink as the colors, just as we specified using the palette argument in the histplot() function.

Note: You can find the complete documentation for the seaborn histplot() function .

The following tutorials explain how to perform other common tasks using seaborn:

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