

# How can I order boxplots on the x-axis in Seaborn?

Authored by  
**stats writer**

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## RECOMMENDED CITATION

stats writer (2024). *How can I order boxplots on the x-axis in Seaborn?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=152380>

To order boxplots on the x-axis in Seaborn, use the "order" parameter in the boxplot function. This parameter allows you to specify the desired order of the boxplots on the x-axis, either by inputting a list of categories or using a categorical variable from the dataset. This allows for the visualization of the boxplots in a specific order, providing a more organized and meaningful representation of the data. Additionally, the "order" parameter can be combined with other Seaborn functions, such as "hue" or "palette", to further customize the graph. By utilizing the "order" parameter, users can easily manipulate the arrangement of boxplots on the x-axis in Seaborn to effectively communicate their data.

## Order Boxplots on x-axis in Seaborn

**You can use the following methods to change the order of boxplots along the x-axis in seaborn:**

### Method 1: Order Boxplots Using Custom Order

```
sns.boxplot(x='group_var', y='values_var', data=df, order=)
```

### Method 2: Order Boxplots Using a Metric

```
group_means=df.groupby().mean().sort_values(ascending=True)
```

```
sns.boxplot(x='group_var', y='values_var', data=df, order=group_means.index)
```

**The following examples show how to use each method**

in practice with the following pandas DataFrame that shows the points scored by basketball players on three different teams:

```
import pandas as pd

#create DataFrame
df = pd.DataFrame({'team': ,
'points': })
```

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

```
team points
```

```
0 A 3
```

```
1 A 4
```

```
2 A 6
```

```
3 A 8
```

```
4 A 9
```

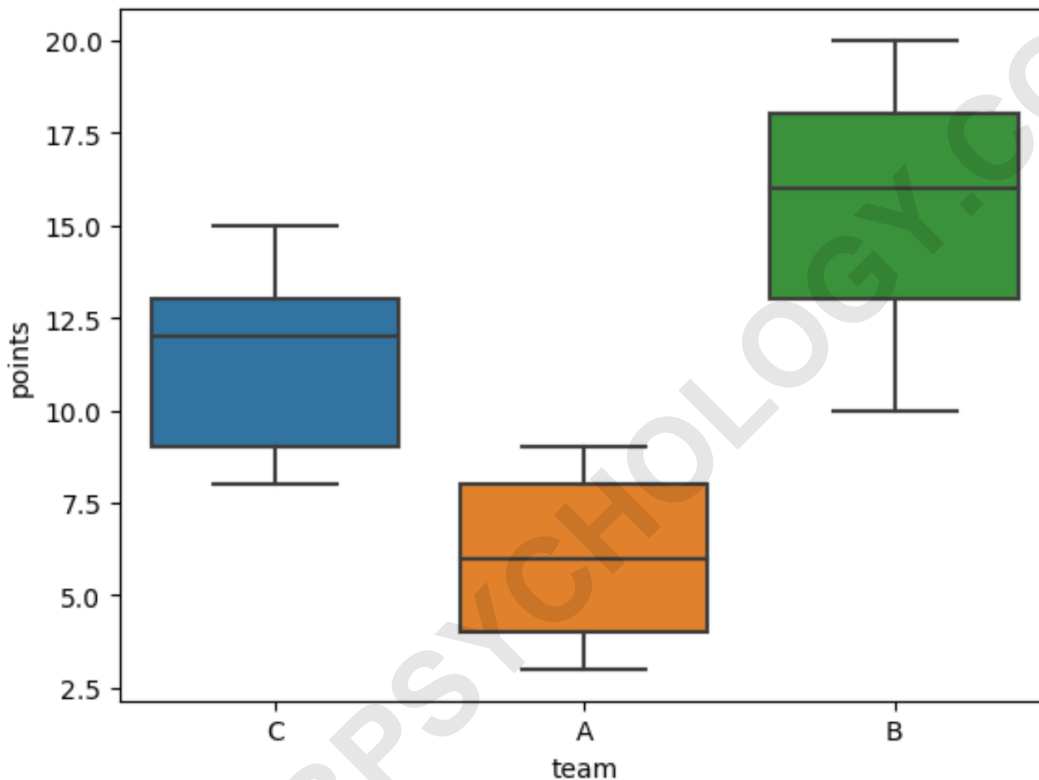
**Example 1: Order Boxplots Using Custom Order**

The following code shows how to create a boxplot to visualize the distribution of points for each team and order the boxplots in the following order based on team name: C, A, B.

```
import seaborn as sns
```

```
#create boxplots with custom order
```

```
sns.boxplot(x='team', y='points', data=df, order=)
```



Notice that the boxplots are ordered along the x-axis in the exact order that we specified.

### Example 2: Order Boxplots Using a Metric

The following code shows how to create a boxplot to visualize the distribution of points for each team and order the boxplots in ascending order based on the

mean points scored by team:

```
import seaborn as sns
```

```
#calculate mean points by team
```

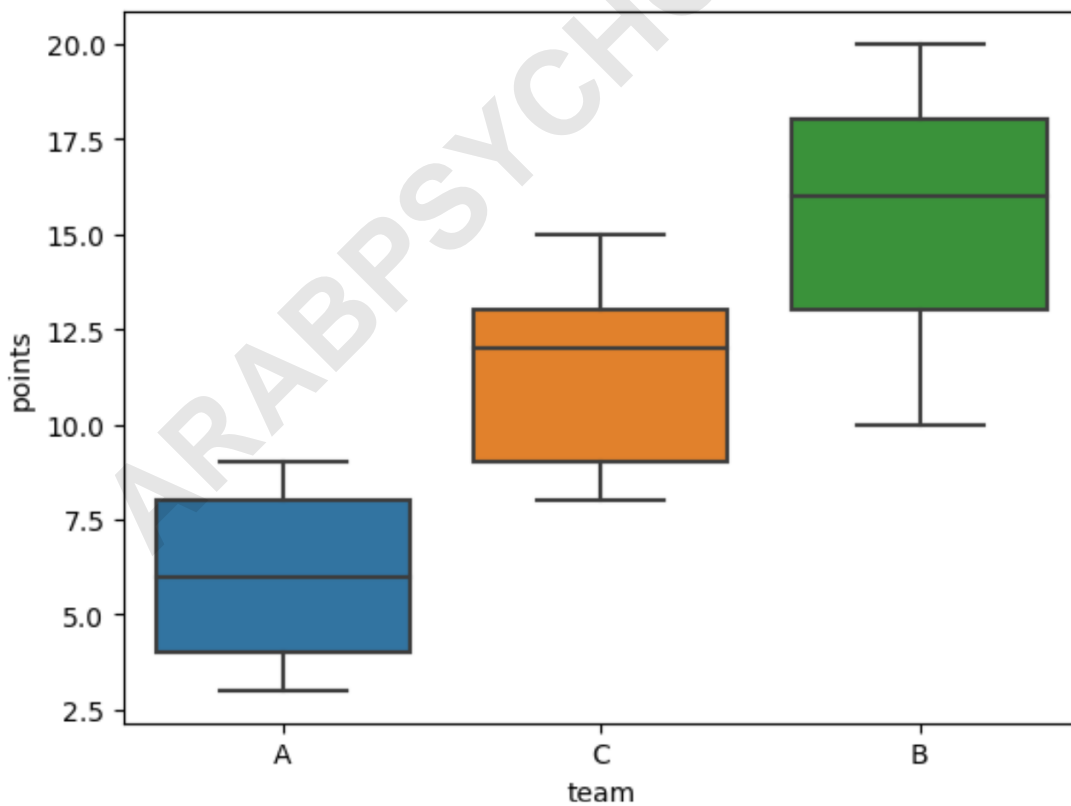
```
mean_by_team
```

```
=
```

```
df.groupby().mean().sort_values(ascending=True)
```

```
#create boxplots ordered by mean points (ascending)
```

```
sns.boxplot(x='team', y='points', data=df,  
order=mean_by_team.index)
```



Notice that the boxplots are ordered along the x-axis based on the mean points value by team in ascending order.

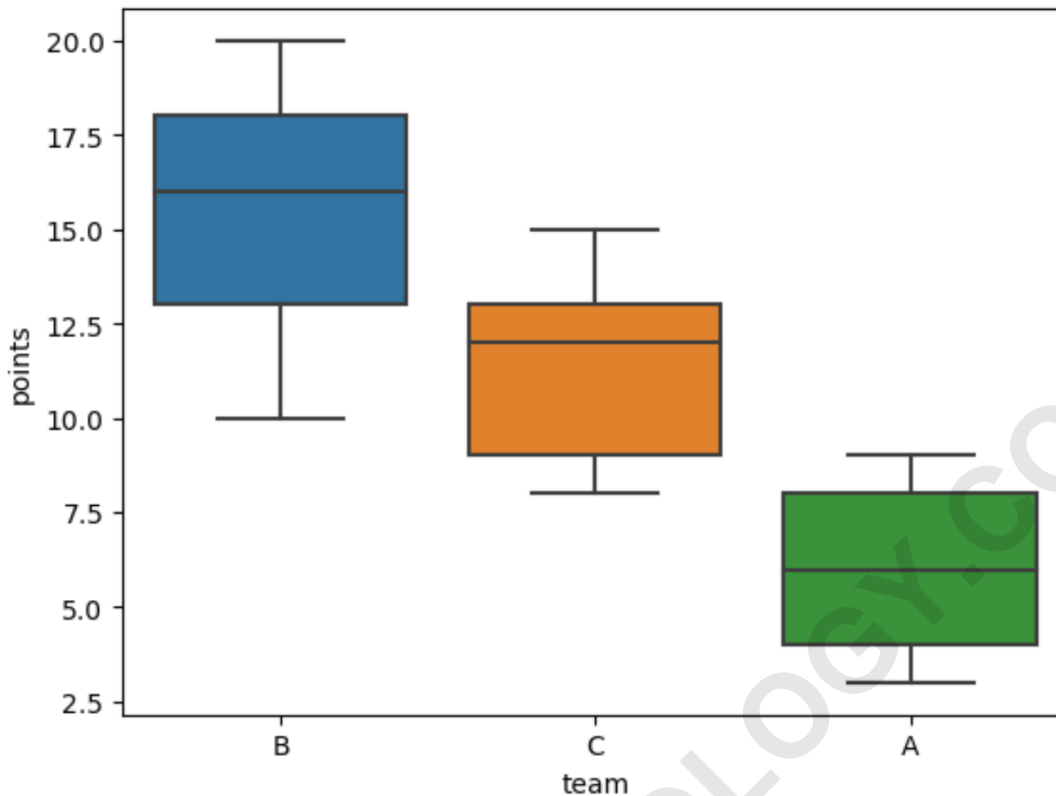
```
import seaborn as sns
```

```
#calculate mean points by team
```

```
mean_by_team =  
df.groupby().mean().sort_values(ascending=False)
```

```
#create boxplots ordered by mean points (descending)
```

```
sns.boxplot(x='team', y='points', data=df,  
order=mean_by_team.index)
```



The boxplots are now ordered along the x-axis based on the mean points value by team in descending order.

**Note:** To order the boxplots based on a different metric (e.g. the median), simply specify that metric after the `groupby()` function in the code above.

The following tutorials explain how to perform other common functions in seaborn: