review

March 10, 2023

0.1 pandas

0.2 subplot function

plt.subplot (1,2) –> the figure has 1 row, 2 columns

[ ]:

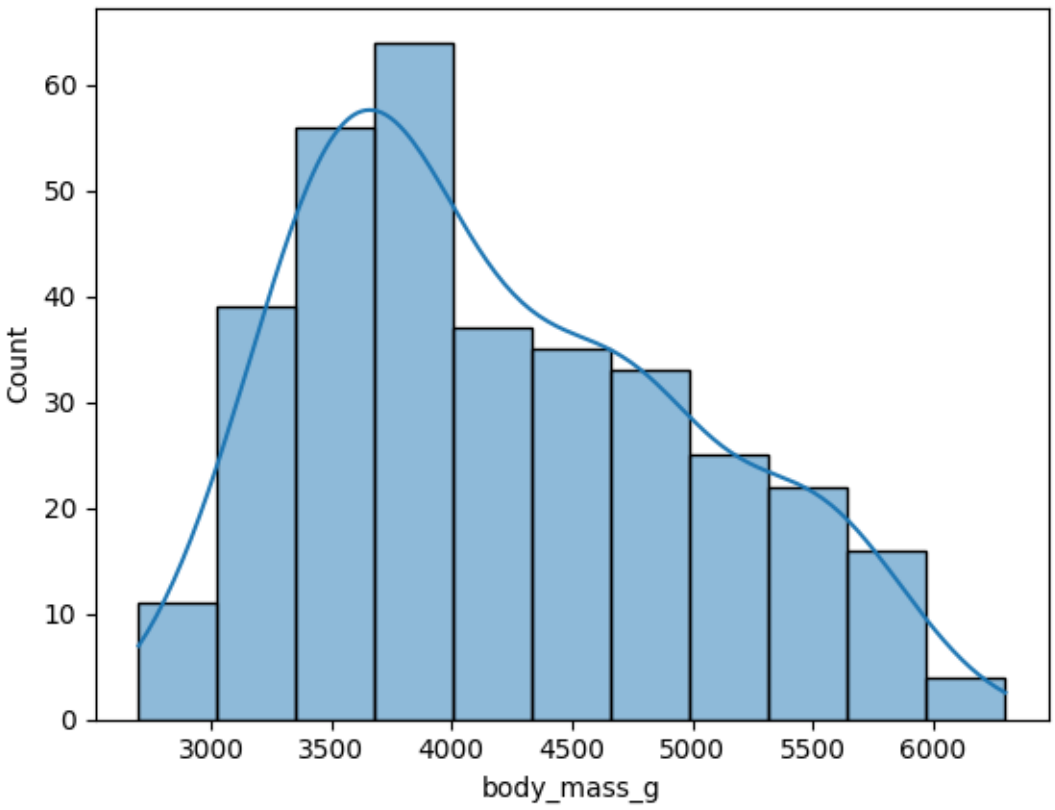
0.3 histogram

0.3.1 seaborn.histplot(data, x, y, hue, stat, bins, binwidth, discrete, kde, log_scale)

- data: input data in the form of Dataframe or Numpy array
- x, y (optional): key of the data to be positioned on the x and y axes respectively
- hue (optional): semantic data key which is mapped to determine the color of plot elements
- stat (optional): count, frequency, density or probability
- bins : số lượng cột
- edgecolor, color, label

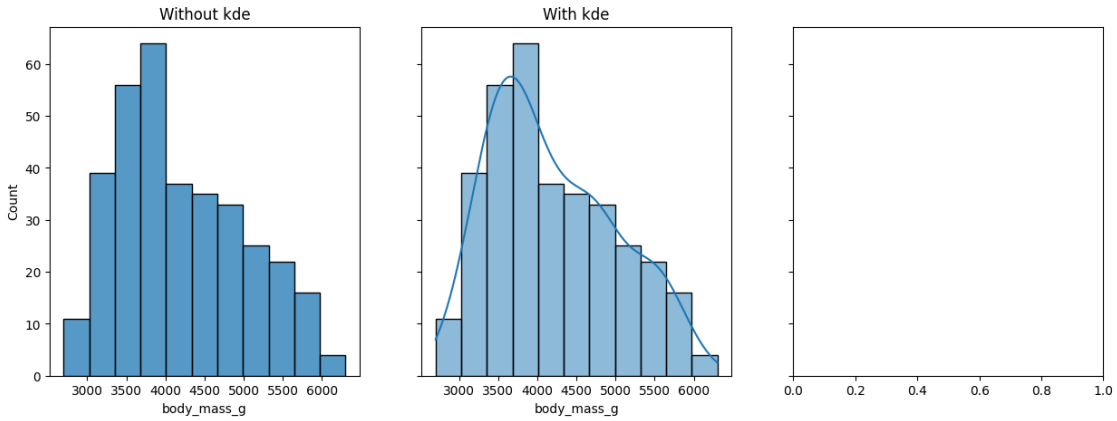
[1]:
```
import seaborn as sns
import numpy as np
import pandas as pd

'load csv file, use pandas'
# data = sns.load_dataset('peiguin.csv')
data = pd.read_csv('peiguin.csv')

sns.histplot(data, x= 'body_mass_g', kde = True)
```

[1]:
```
<AxesSubplot: xlabel='body_mass_g', ylabel='Count'>
```



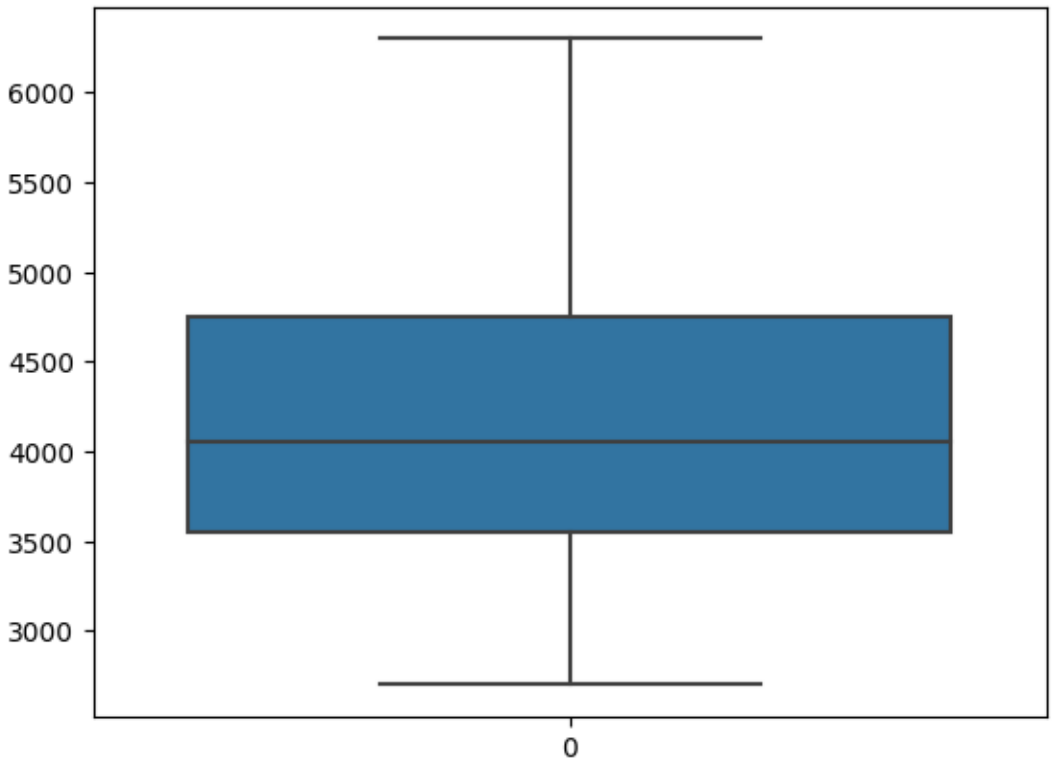
[2]:
```
import matplotlib.pyplot as plt


fig, axes = plt.subplots(1, 3, figsize=(15, 5), sharey=True)


sns.histplot(ax=axes[0], data= data,  x=data.body_mass_g)
axes[0].set_title('Without kde')


sns.histplot(ax=axes[1], data = data, x=data.body_mass_g, kde = True)
axes[1].set_title('With kde')

# sns.kdeplot(ax=axes[2], data = data,  x=data.body_mass_g , fill=True, alpha =␣
 ↪0.8, palette='viridis')
# axes[1].set_title('With kde')
```

[2]:
```
Text(0.5, 1.0, 'With kde')
```



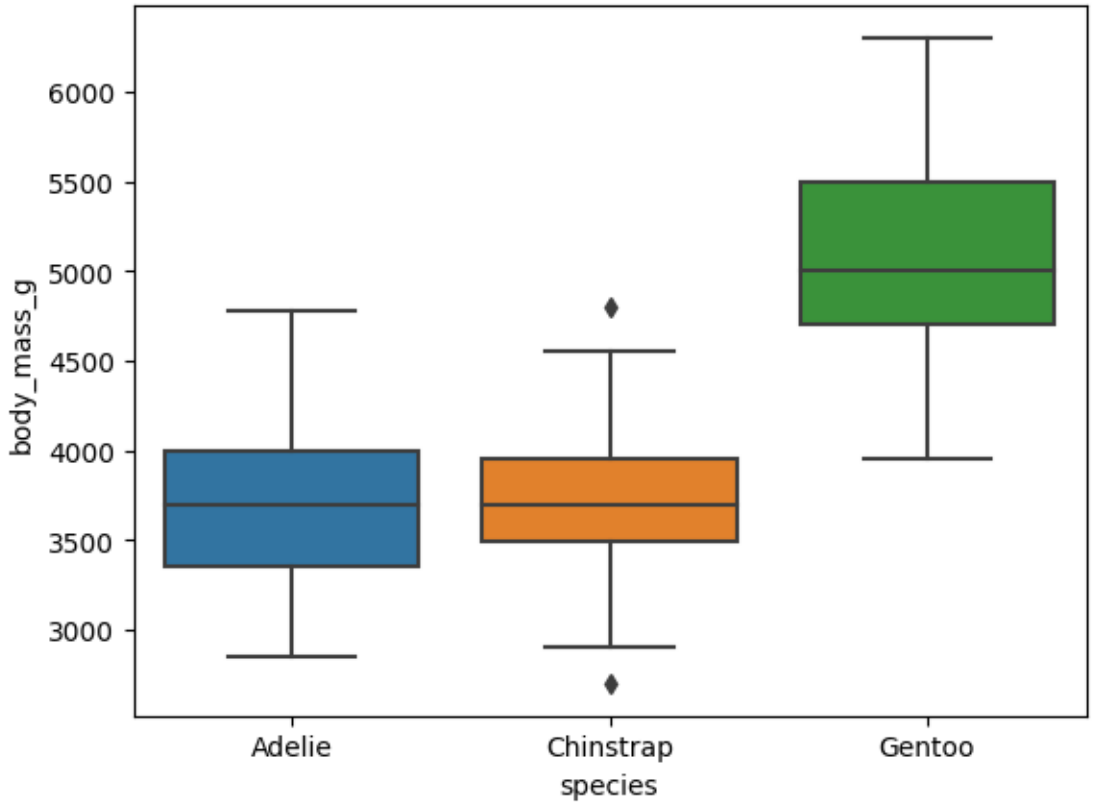
[3]:
```
sns.boxplot(data.body_mass_g)
```

[3]: <AxesSubplot: >



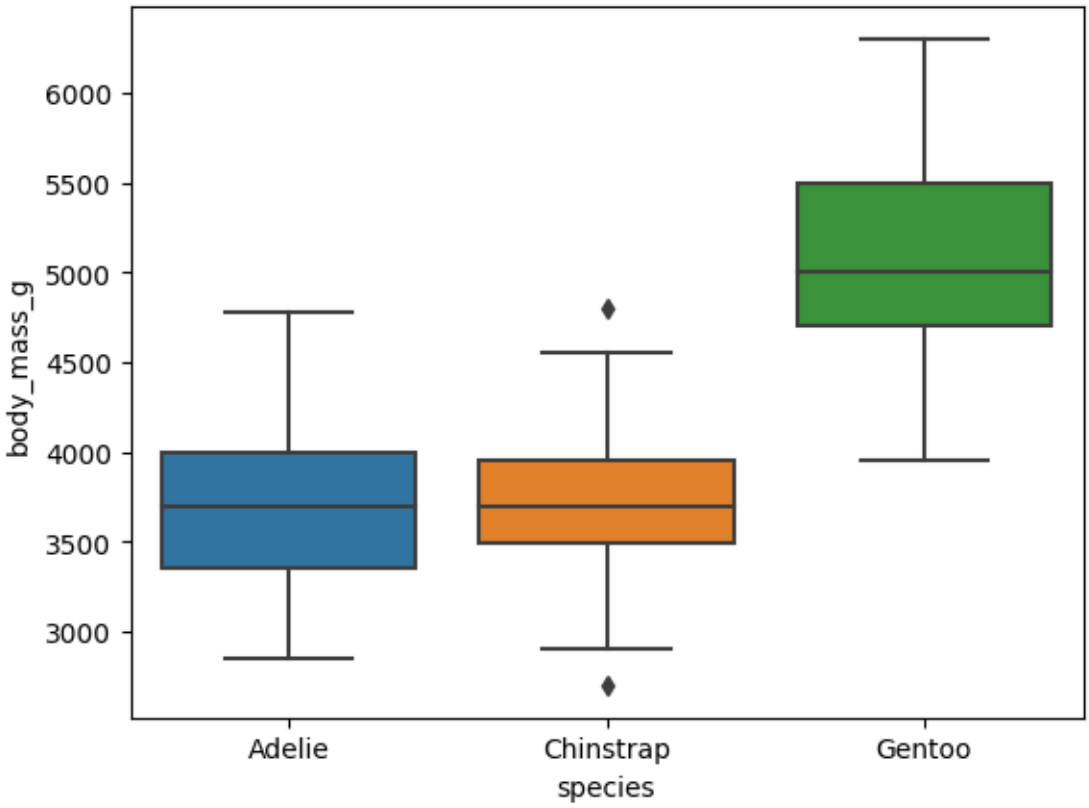
[4]:
```
# Trong cot species co 3 loai laf Adelie, Gentoo,.., vex boxplot cua cot body␣
  ↪mass theo cot species
sns.boxplot(x = data['species'], y = data['body_mass_g'])
```

[4]: <AxesSubplot: xlabel='species', ylabel='body_mass_g'>



[11]:
```
sns.boxplot(x = data['species'], y = data['body_mass_g'] )
```

[11]: <AxesSubplot: xlabel='species', ylabel='body_mass_g'>


6000
5500
5000
4500
4000
3500
3000
body_mass_g
Adelie
Chinstrap
Gentoo
species