

Assignment 9

March 7, 2021

0.0.1 Portfolio assignment 9

25 min: Perform a bivariate analysis on the columns with numerical data in the penguins dataset. - Use corr() on the DataFrame to calculate all the correlations. Use the code example above to show the correlation table with colors. - Look at the correlations. Do they match your expectations? - Show a scatter plot for - The strongest positive correlation - The strongest negative correlation - The weakest correlation

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

```
[2]: penguin = sns.load_dataset('penguins')
penguin.head()
```

```
[2]: species      island  bill_length_mm  bill_depth_mm  flipper_length_mm  \
0  Adelie  Torgersen         39.1           18.7           181.0
1  Adelie  Torgersen         39.5           17.4           186.0
2  Adelie  Torgersen         40.3           18.0           195.0
3  Adelie  Torgersen          NaN           NaN           NaN
4  Adelie  Torgersen         36.7           19.3           193.0

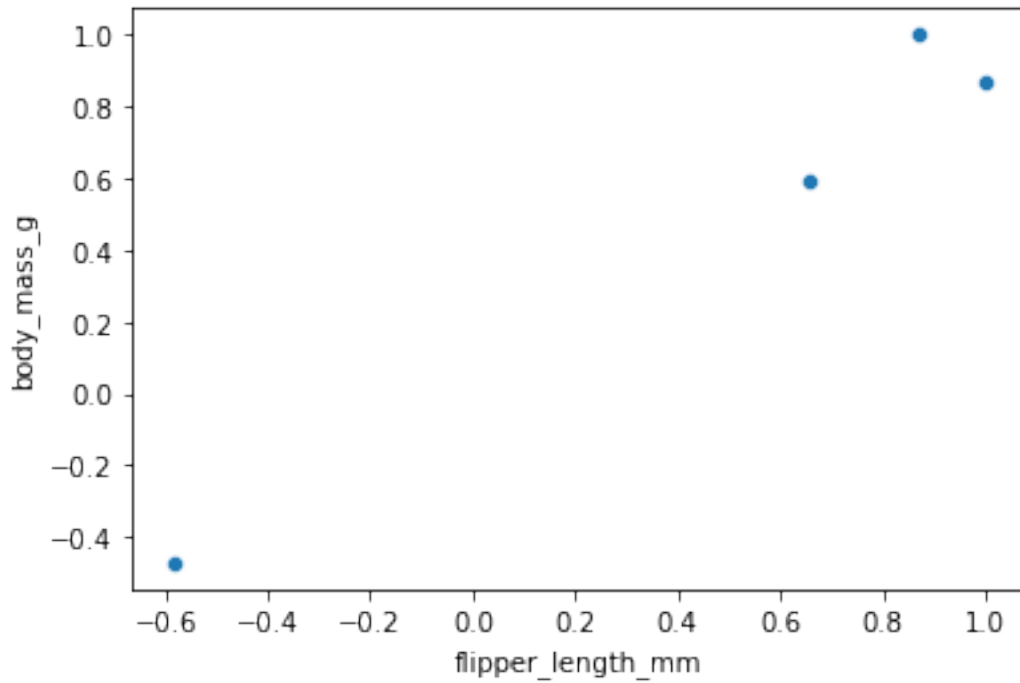
    body_mass_g  sex
0       3750.0  Male
1       3800.0 Female
2       3250.0 Female
3          NaN   NaN
4       3450.0 Female
```

```
[3]: penguinCorr = penguin.corr() # calculate correlations
penguinCorr.style.background_gradient(cmap='coolwarm', axis=None).
    ↪set_precision(2)
```

```
[3]: <pandas.io.formats.style.Styler at 0x24771f7e190>
```

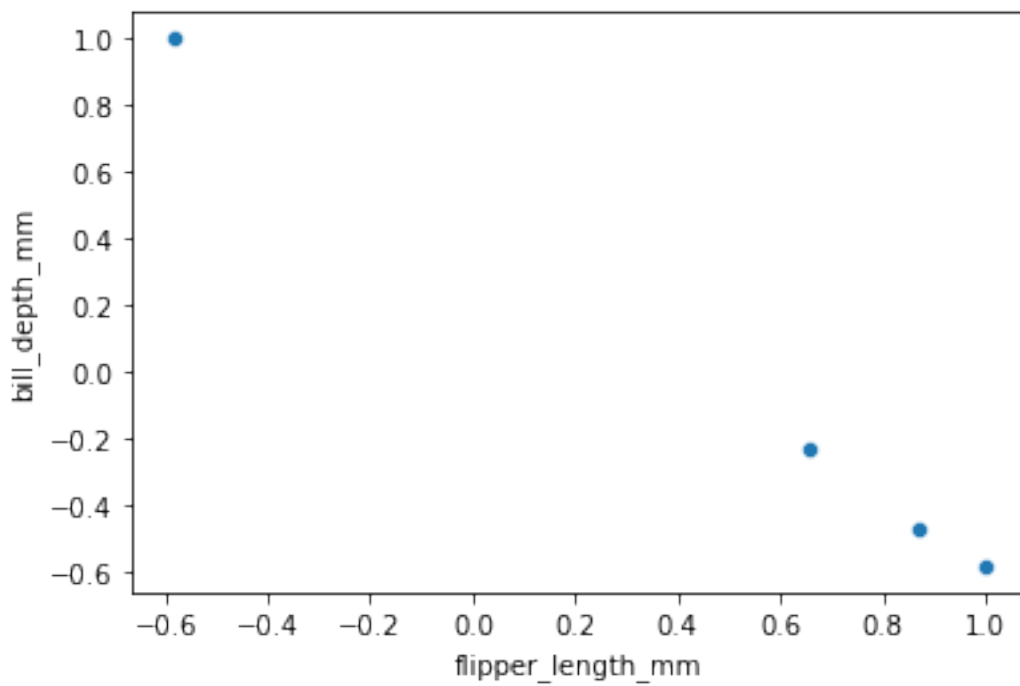
```
[4]: sns.scatterplot(x=penguinCorr.flipper_length_mm,y=penguinCorr.body_mass_g) #
    ↪Strongest positive
```

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



```
[5]: sns.scatterplot(x=penguinCorr.flipper_length_mm,y=penguinCorr.bill_depth_mm)#  
     ↪ Strongest negative
```

```
[5]: <AxesSubplot:xlabel='flipper_length_mm', ylabel='bill_depth_mm'>
```



```
[6]: sns.scatterplot(x=penguinCorr.bill_depth_mm,y=penguinCorr.bill_length_mm) #  
↳ Weakest
```

```
[6]: <AxesSubplot:xlabel='bill_depth_mm', ylabel='bill_length_mm'>
```

