Penguins

Nas

2024-01-11

Exploring the Palmer Penguins dataset

Objectives:

- 1. Is there a correlation between flipper length and body mass?
- 2. Which penguin species is the largest?
- 3. Does sex affect body mass?

Environment Setup Loading the following pacakges

- tidyverse
- ggplot2
- palmerpenguins
- gridExtra

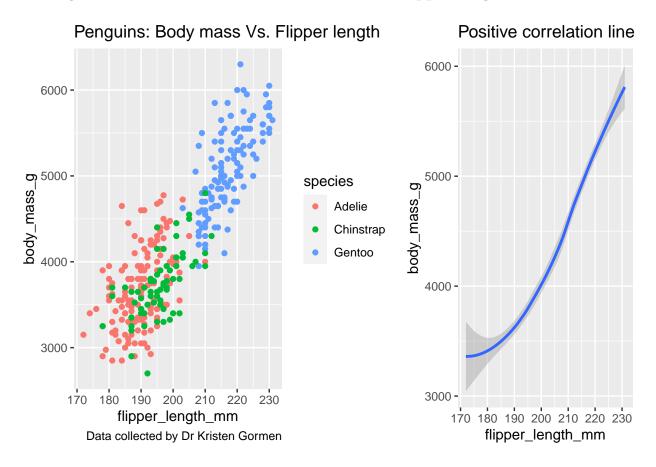
```
library(tidyverse)
library(ggplot2)
library(palmerpenguins)
library(gridExtra)
```

The Penguins Dataset:-

```
## # A tibble: 6 x 8
     species island
                       bill_length_mm bill_depth_mm flipper_length_mm body_mass_g
     <fct>
            <fct>
                                <dbl>
                                              <dbl>
                                                                 <int>
                                                                             <int>
## 1 Adelie Torgersen
                                 39.1
                                               18.7
                                                                              3750
                                                                   181
## 2 Adelie Torgersen
                                                17.4
                                 39.5
                                                                   186
                                                                              3800
## 3 Adelie Torgersen
                                 40.3
                                               18
                                                                   195
                                                                              3250
## 4 Adelie Torgersen
                                 NA
                                               NA
                                                                   NA
                                                                                NA
## 5 Adelie Torgersen
                                 36.7
                                               19.3
                                                                   193
                                                                              3450
## 6 Adelie Torgersen
                                 39.3
                                               20.6
                                                                   190
                                                                              3650
## # i 2 more variables: sex <fct>, year <int>
```

Objective 1:

Finding if there is a correlation between mass & flipper length.

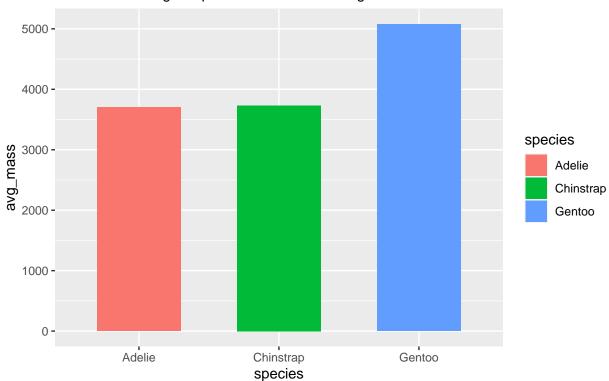


Postive correlation between the two variables. as one variable changes, so does the other!

Objective 2

Finding out which species of penguins is the heaviest.

Mean mass by species Gentoo is the largest species in terms of average mass



Objective 3

Does sex play a role on weight?

Mass difference between males & females Males tend to have more mass than females

