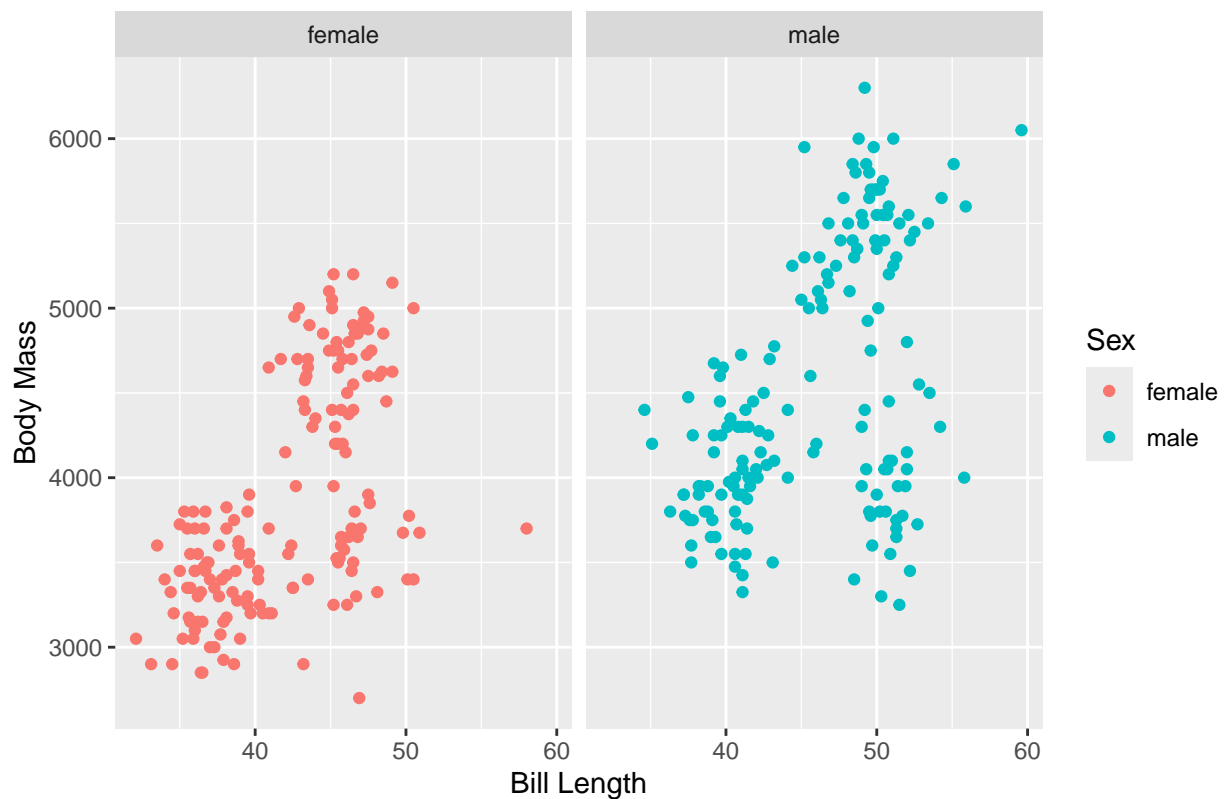# Assignment 5

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2025-11-10

Dataset

The `penguins` dataset (available through the `palmerpenguins` package and can be loaded after installing and loading the package) contains real-world data collected from three penguin species are Adélie, Chinstrap, and Gentoo living in the Palmer Archipelago of Antarctica. The measurements were taken between 2007 and 2009 consists many variables about the penguins such as `species`, `island`, `bill_length_mm`, and so on.

Drawing a plot for association

1. Draw a single plot showing association between the bill lengths and body mass of the penguins according to the their sex (60 pts).

```
ggplot(penguins, aes(x = bill_length_mm, y = body_mass_g, colour = sex)) +
  geom_point() +
  labs(title = " Association Between the Bill Lengths and Body Mass of the Penguins According to the The
       colour= "Sex",
       x ="Bill Length",
       y = "Body Mass")+

  facet_grid(~sex)
```

Association Between the Bill Lengths and Body Mass of the Penguins Ac

2. Interpret the plot (40 pts).

We looking at The `penguins` dataset contains real-world data collected from three penguin species are Adélie, Chinstrap, and Gentoo living in the Palmer Archipelago of Antarctica. The measurements were taken between 2007 and 2009 consists many variables about the penguins such as `species`, `island`, `bill_length_mm`, and so on. There are 333 observations and 8 variables. In the plot we can see there is a more body mass in the male penguins rather than female ones.Also,the female Body Mass more linear than the male one. And the both female and male penguins have correlation positive side.