**Exercise 1**

We are going to use the iris dataset to test our skills in working with data.

1. Import the iris dataset into a variable named df\_iris. For the following steps, create a new variable df\_iris\_data assigning to it the data you imported and use the pipe operator to add steps 2 to 5.
2. Subset the dataset to keep with columns that start with Petal and Species
3. Rename columns that start with Petal by removing Petal. from the columns. Maintaining only Length and Width
4. Subset dataset to keep only rows where Length is greater than 1.2
5. Create a new column of Length\_Category with ranges < 3 “less\_than\_3”, < 5 “btn\_3\_and\_5”, > 5 “greater\_than\_5”
6. Create a bar graph indicating the Species and colour the graph based on Length\_Category.
7. Calculate the mean Length for each Species and store the result in the df\_mean\_length variable.
8. Create a bar graph for the result from the previous step.
9. Calculate the proportions based on Species and Length\_Category. Export this result into a csv file.