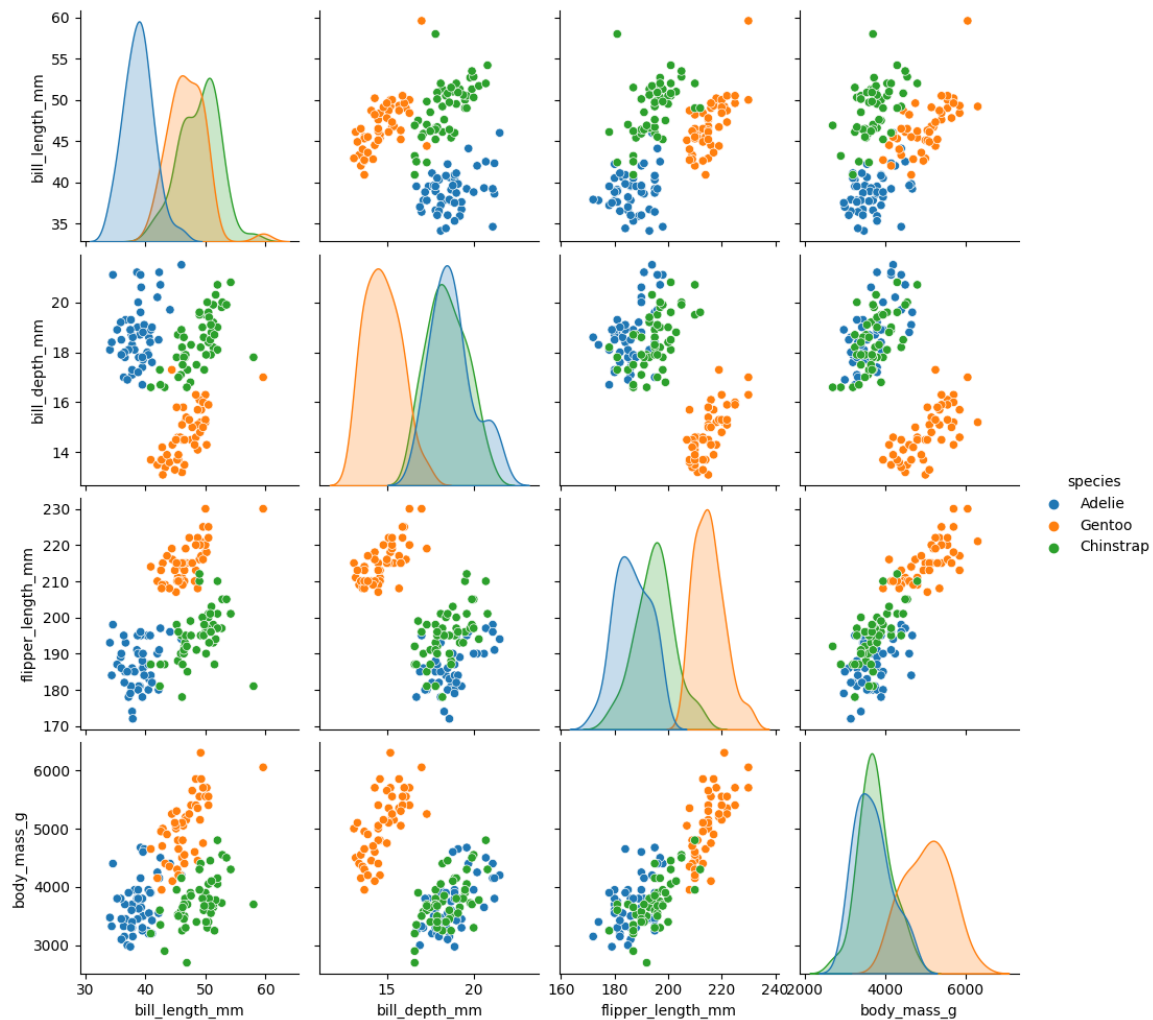


# Task 1 - Perceptron Report

Team: SC\_H7

- Which features discriminate and which don't?



From the previous pair plot, we can see that the plots that are linearly separable are:

- For Chinstrap & Gentoo:
  - Bill depth vs. body mass
  - Bill depth vs. flipper length
- For Chinstrap & Adelie:
  - Bill depth vs. Bill length
- For Adelie & Gentoo:
  - Bill depth vs. body mass
  - Flipper length vs. Body mass
  - Flipper length vs. Bill depth
  - Flipper Length vs. Bill length
  - Bill depth vs. Bill length

NN Task

Choose two features:

- ☐ bill\_length\_mm
- ☒ bill\_depth\_mm
- ☒ flipper\_length
- ☐ gender
- ☐ body\_mass\_g

Choose two classes:

- ☒ Adelie
- ☒ Gentoo
- ☐ Chinstrap

Model Tested

Model Accuracy on train data 100.0  
Model Accuracy on test data 100.0

OK

Enter learning rate: 0.01 Epochs: 2 ☐ Bias

Train Test reTrain Plot

Don't forget to Train the model after changing parameters to get updated results

Best accuracy was obtained with Adelie & Gentoo Classes Using bill depth and flipper length features. We used a learning rate of 0.01, 2 epochs and no bias.

