Task 1 Report

Team ID: CS_H21
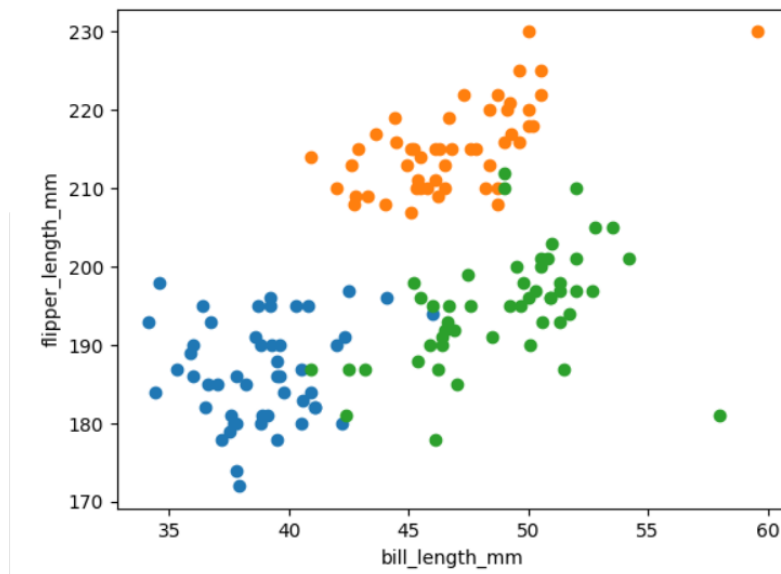
Team Members:

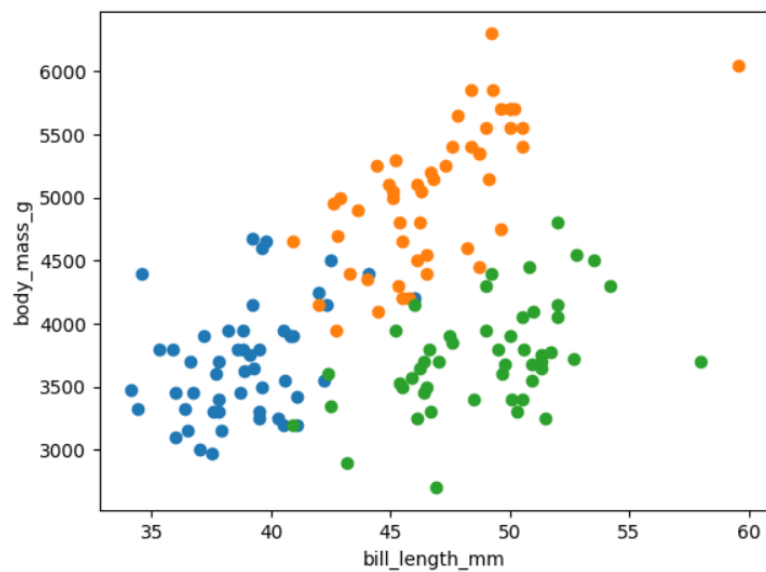| IDS	Names
20191700109	اسلام عصام عبد العاطى
20191700062	احمد محمد توفيق
20191700085	ادهم على احمد
20191700141	اميره ياسر محمد عطيه
20191700159	ايمان منصور عبد الحليم

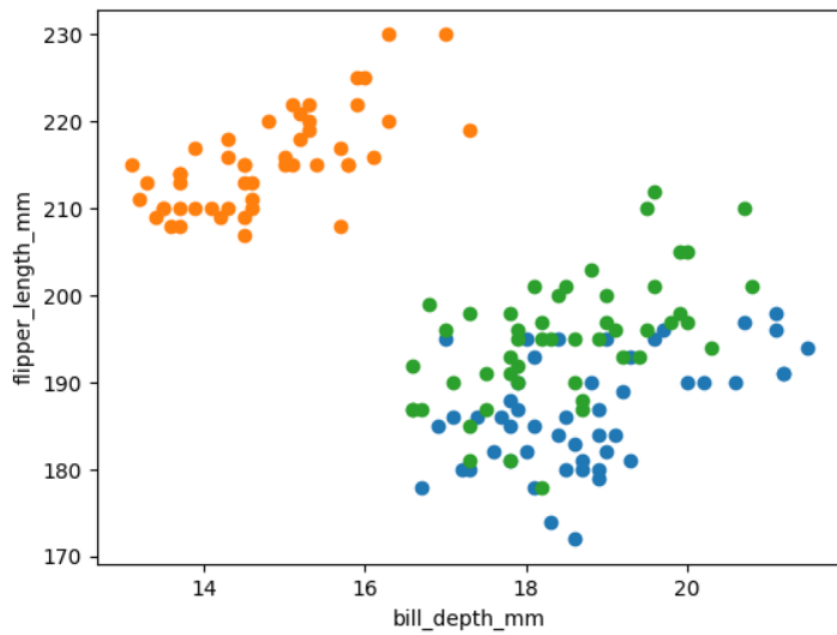## The visualization of dataset:
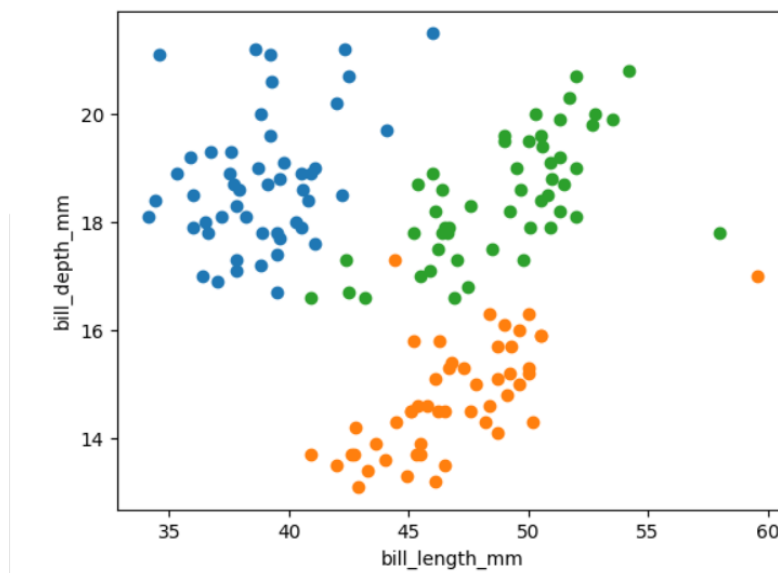
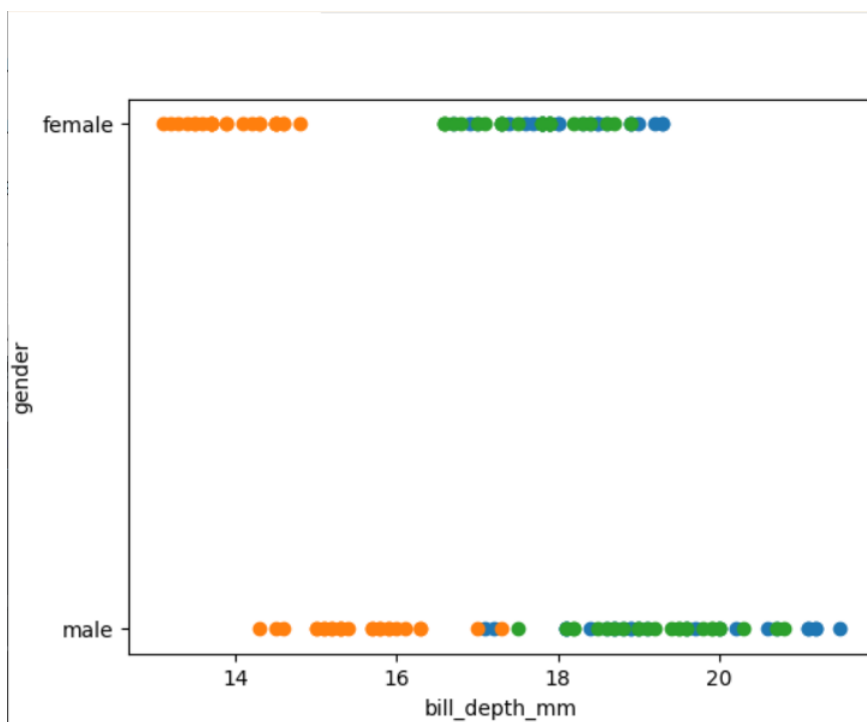bill_length_mm and bill_depth_mm are discriminative between all 3 classes.

bill_length_mm and flipper_length_mm are discriminative between all 3 classes.
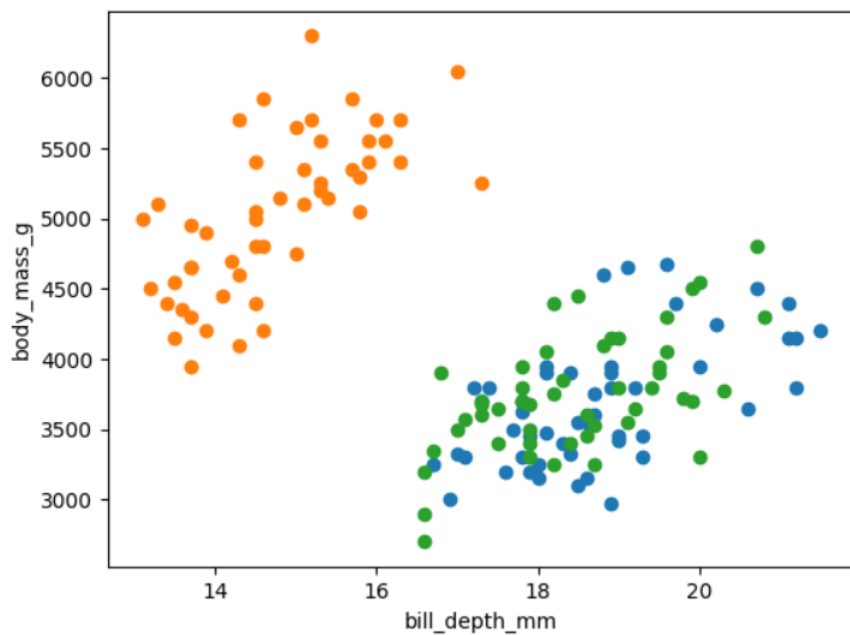

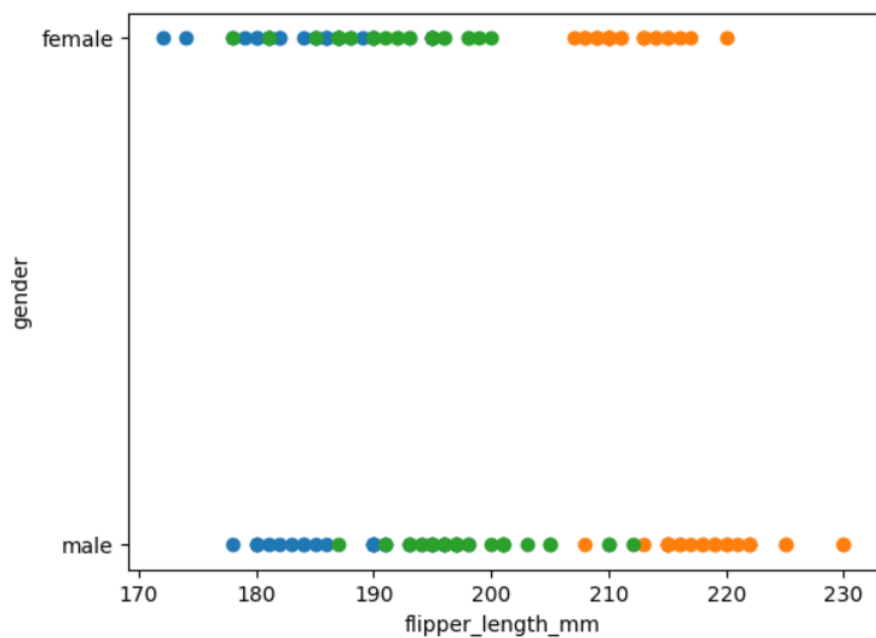bill_length_mm and body_mass_g are discriminative between Chinstrap and Adelie or Chinstrap and Gentoo.

bill_depth_mm and flipper_length_mm are discriminative between Gentoo and Adelie or Gentoo and Chinstrap.
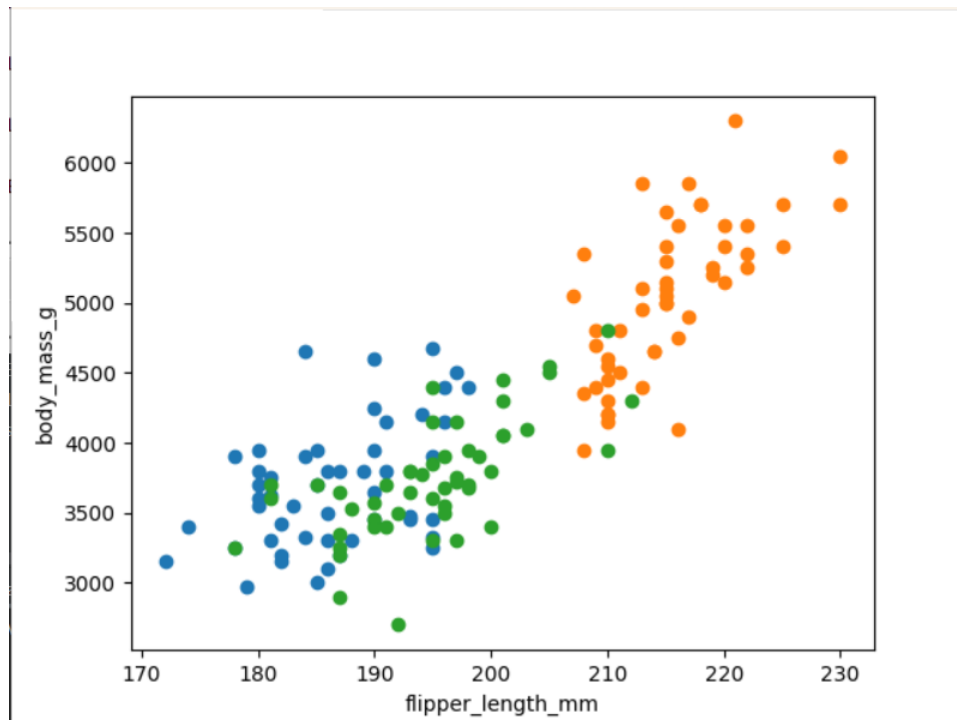

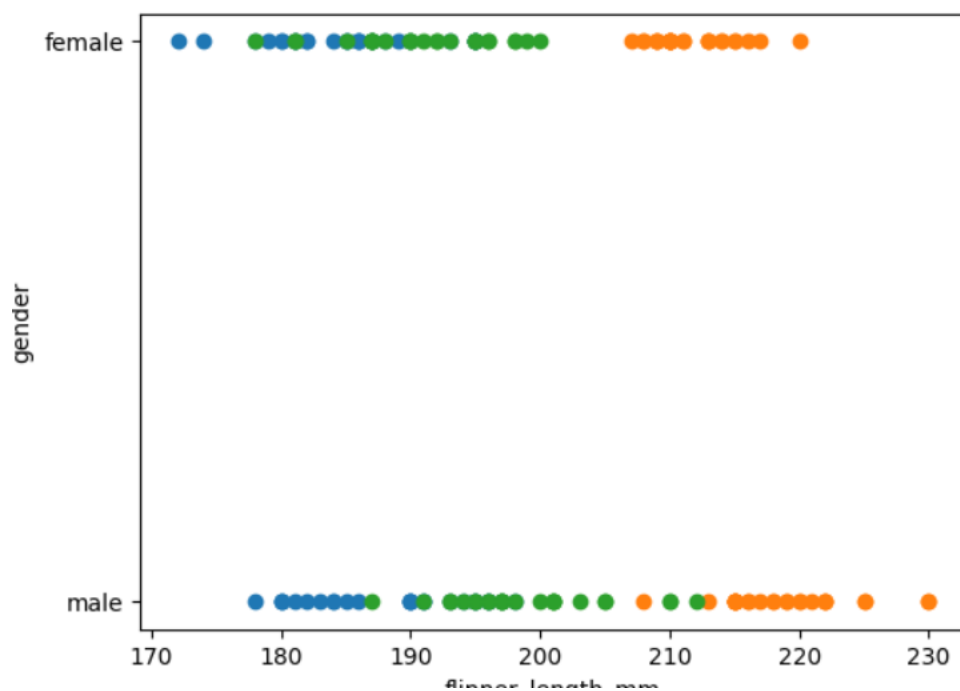bill_depth_mm and gender are discriminative between Gentoo and Adelie or Gentoo and Chinstrap.

bill_depth_mm and body_mass_g are discriminative between Gentoo and Adelie or Gentoo and Chinstrap.

flipper_length_mm and gender are discriminative between Gentoo and Adelie or Gentoo and Chinstrap.

flipper_length_mm and body_mass_g are discriminative between Gentoo and Adelie or Gentoo and Chinstrap.
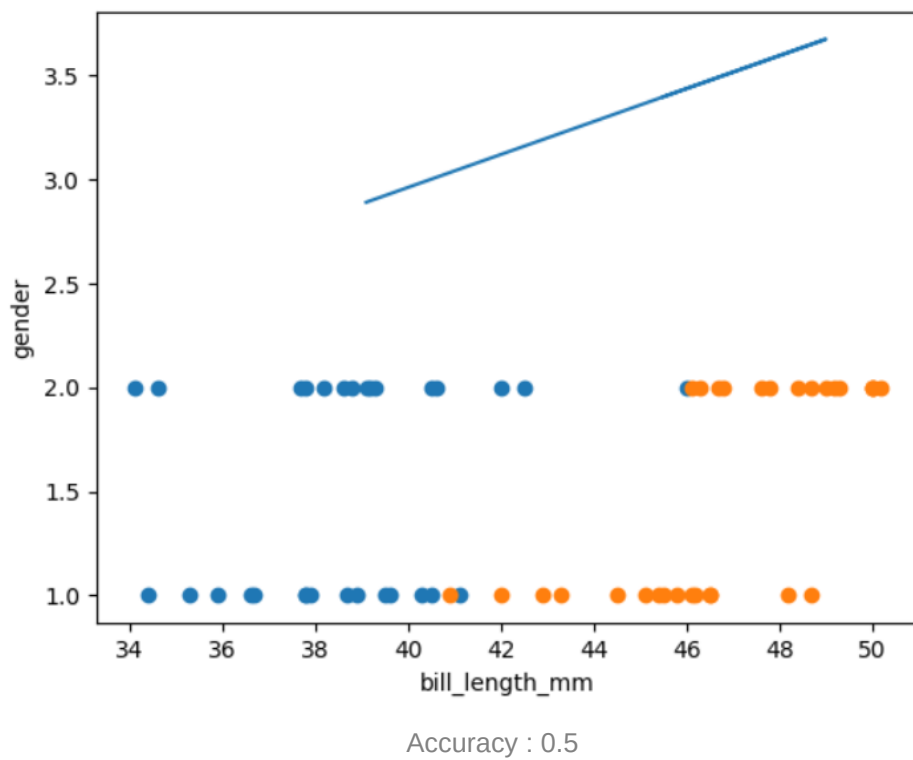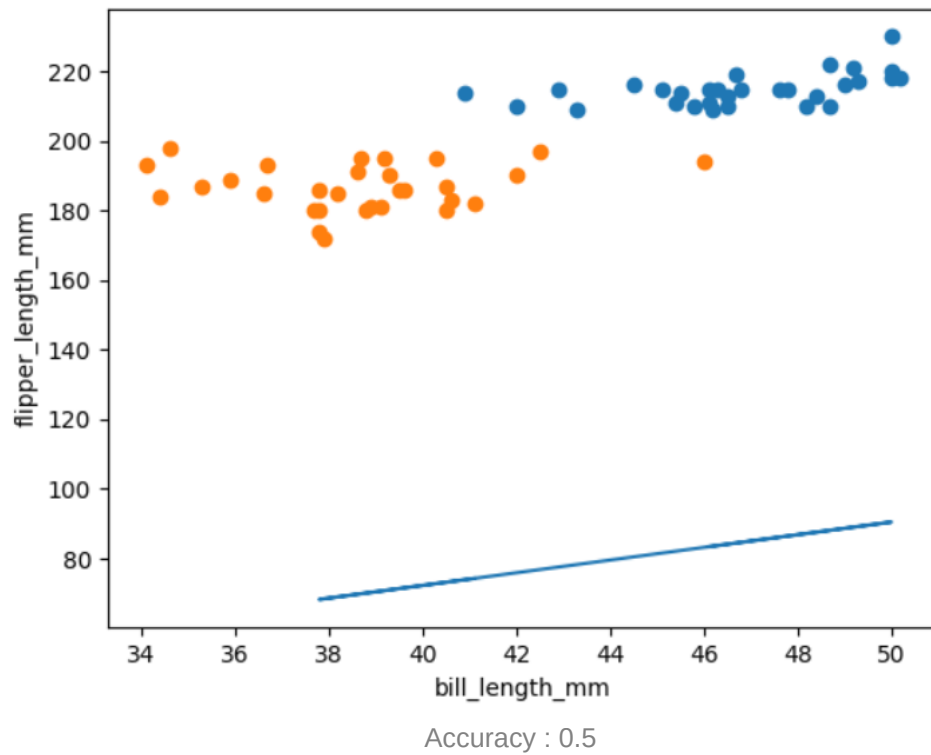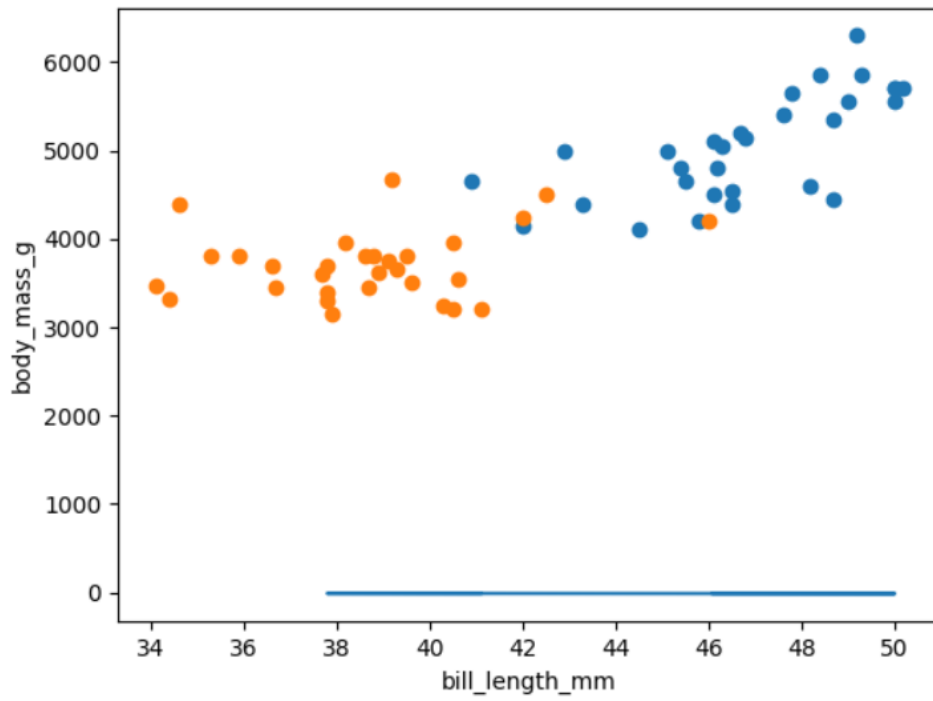

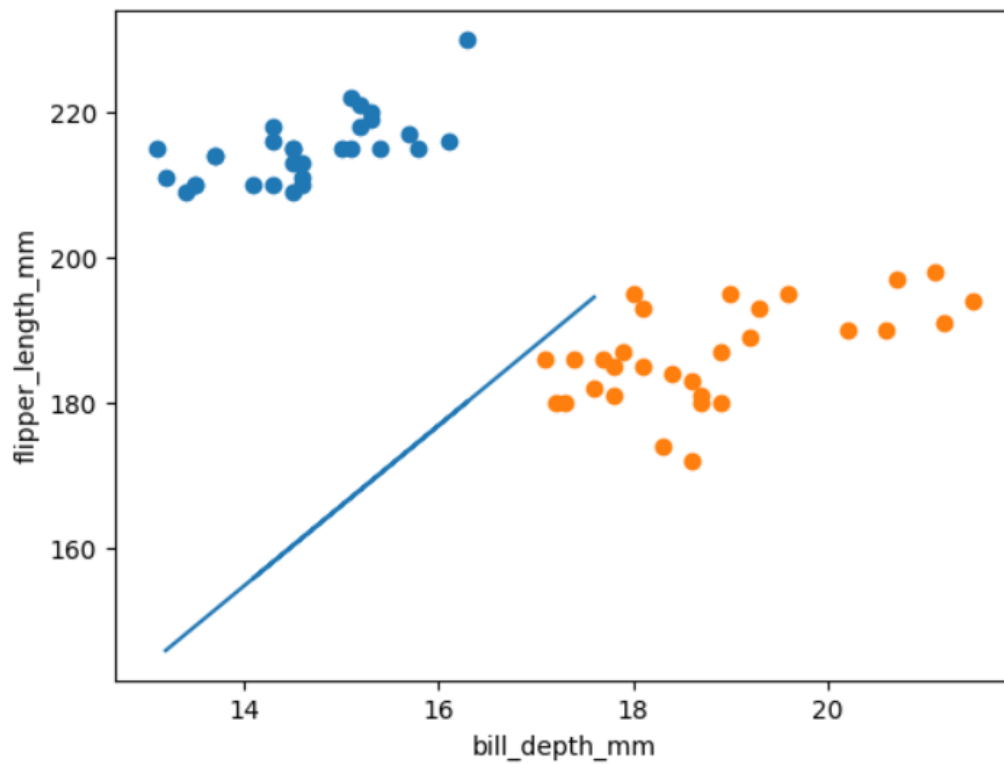gender and body_mass_g are discriminative between Gentoo and Adelie or Gentoo and Chinstrap.

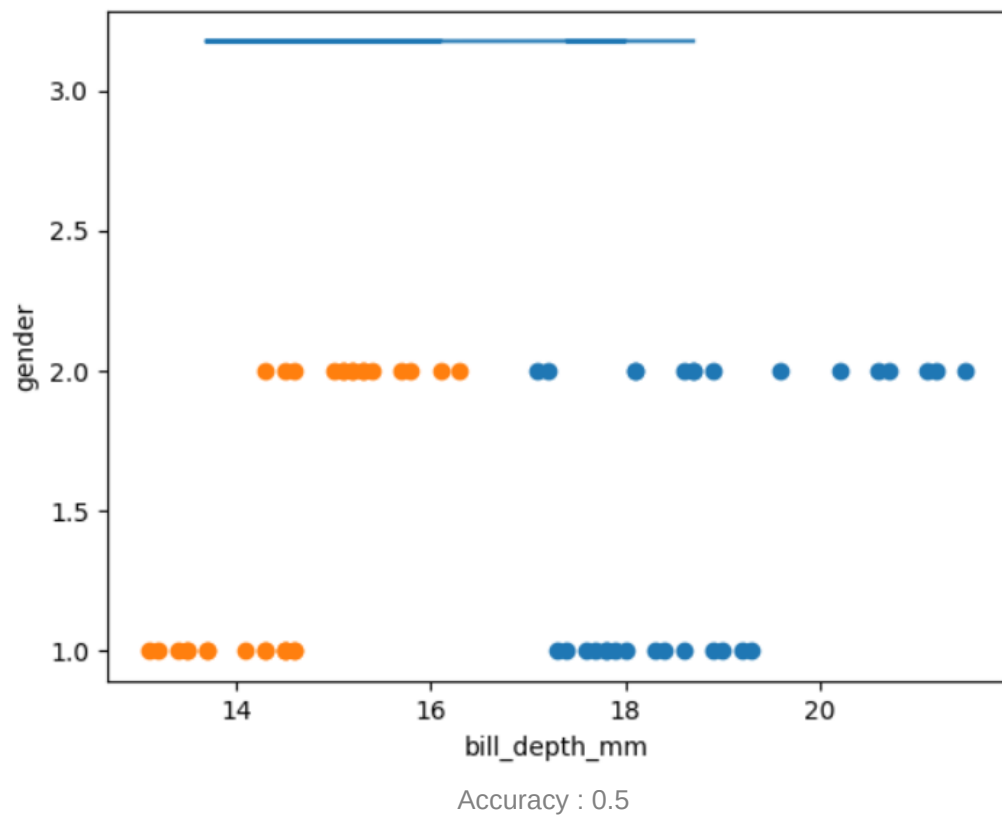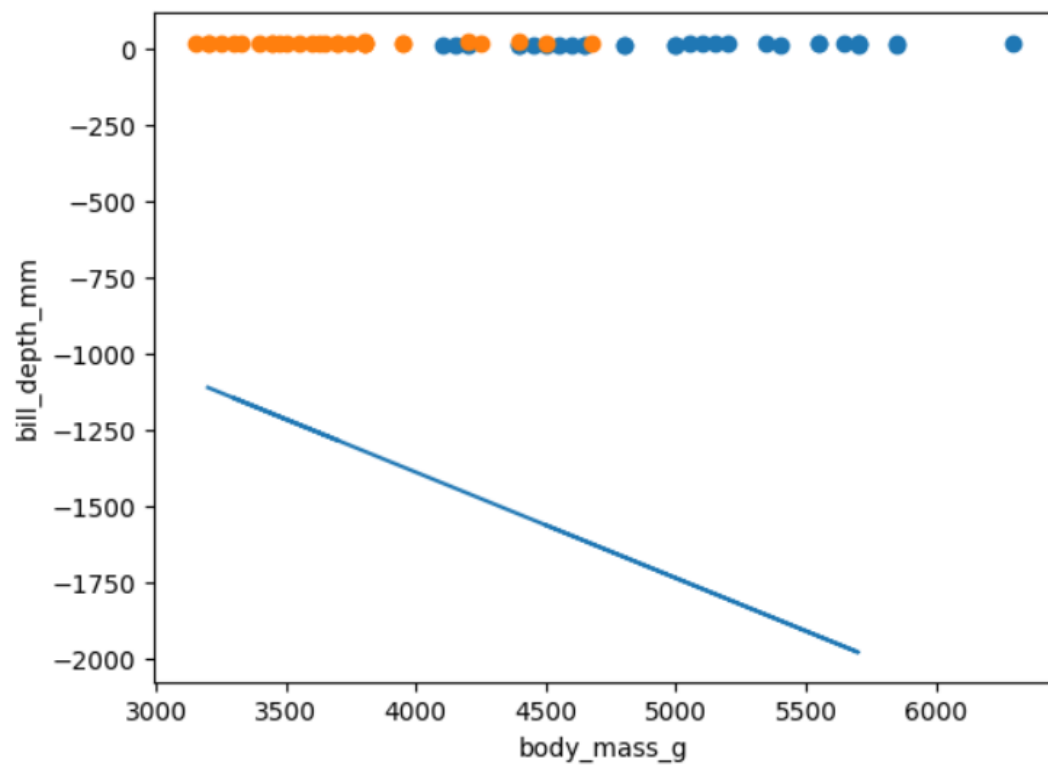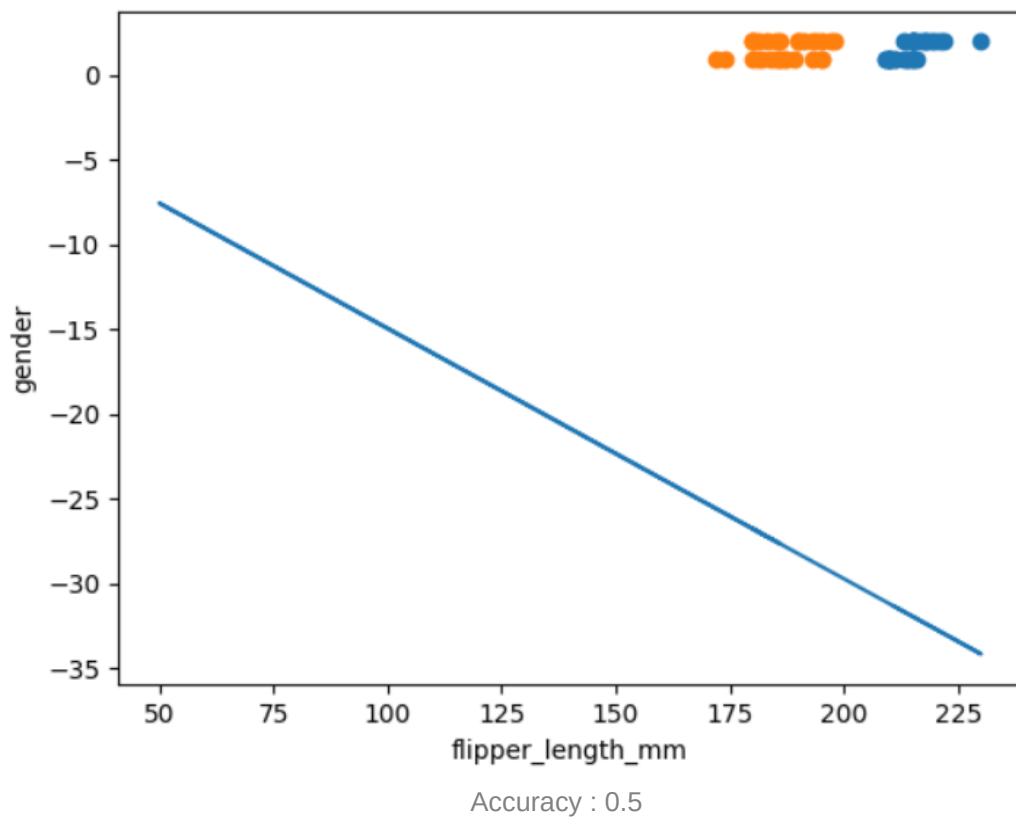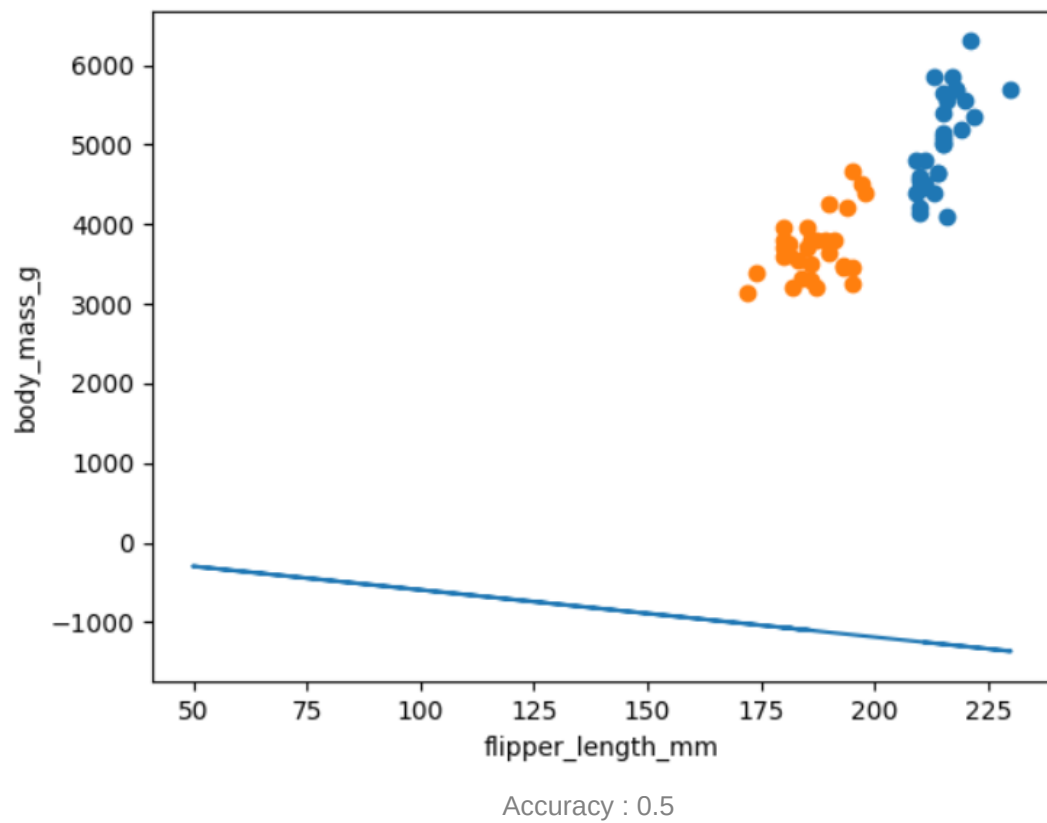# Training With Adelie And Gentoo:

Accuracy : 0.975

Accuracy : 0.5

Accuracy : 0.5

Accuracy : 0.5

Accuracy : 0.975
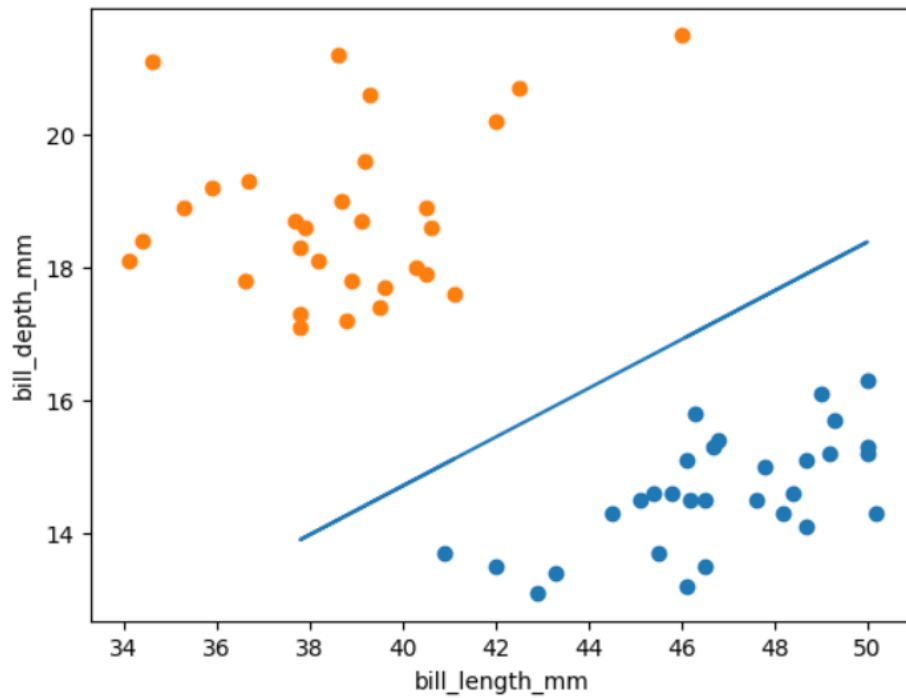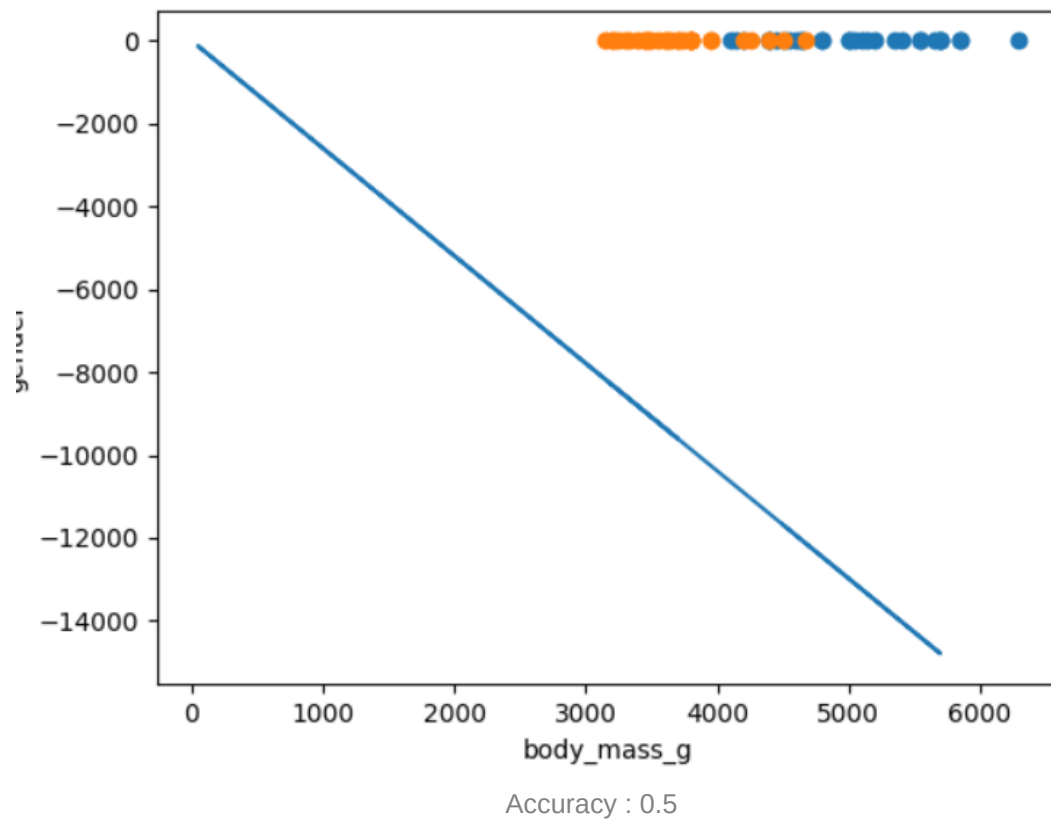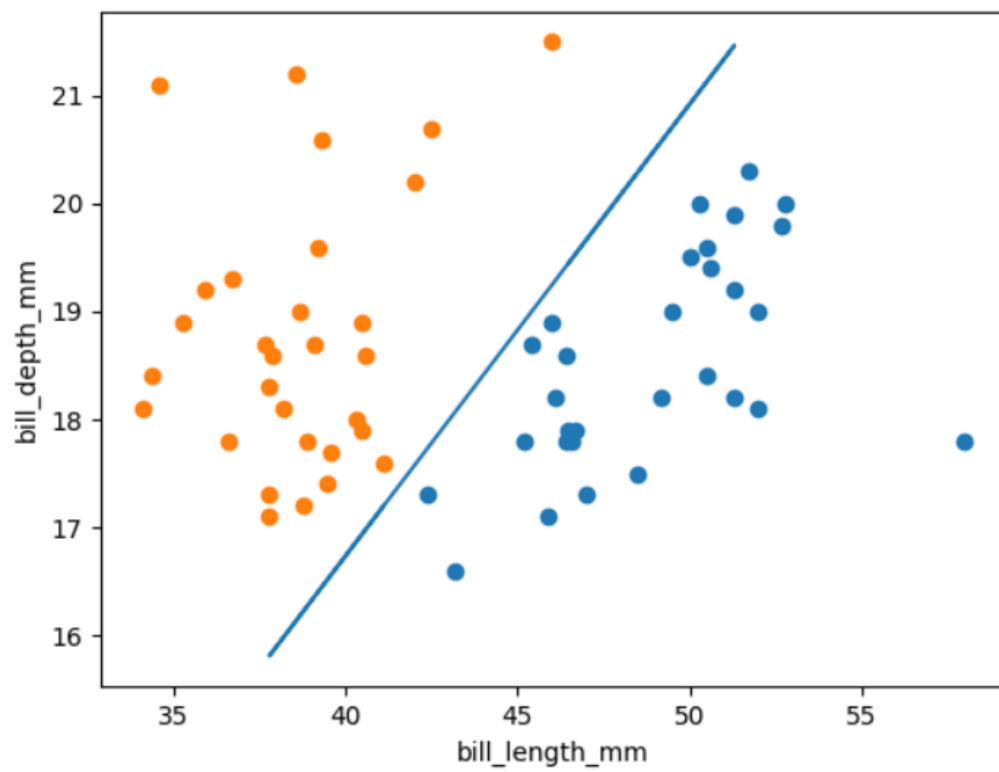
Accuracy : 0.5

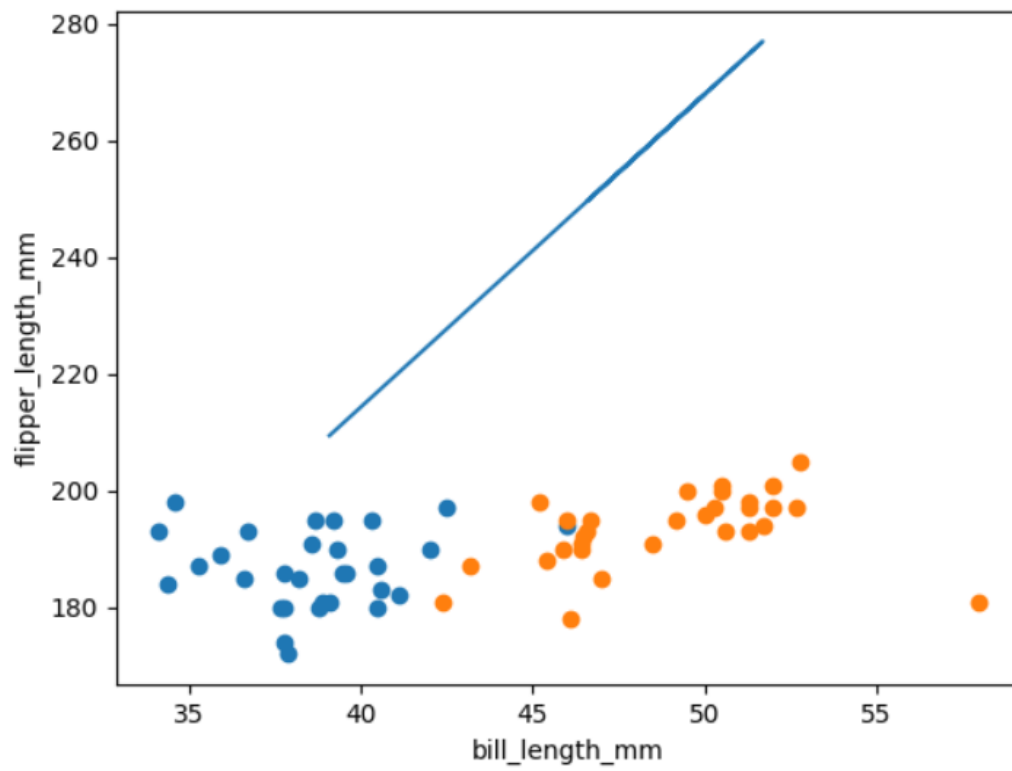Accuracy : 0.5

Accuracy : 0.5
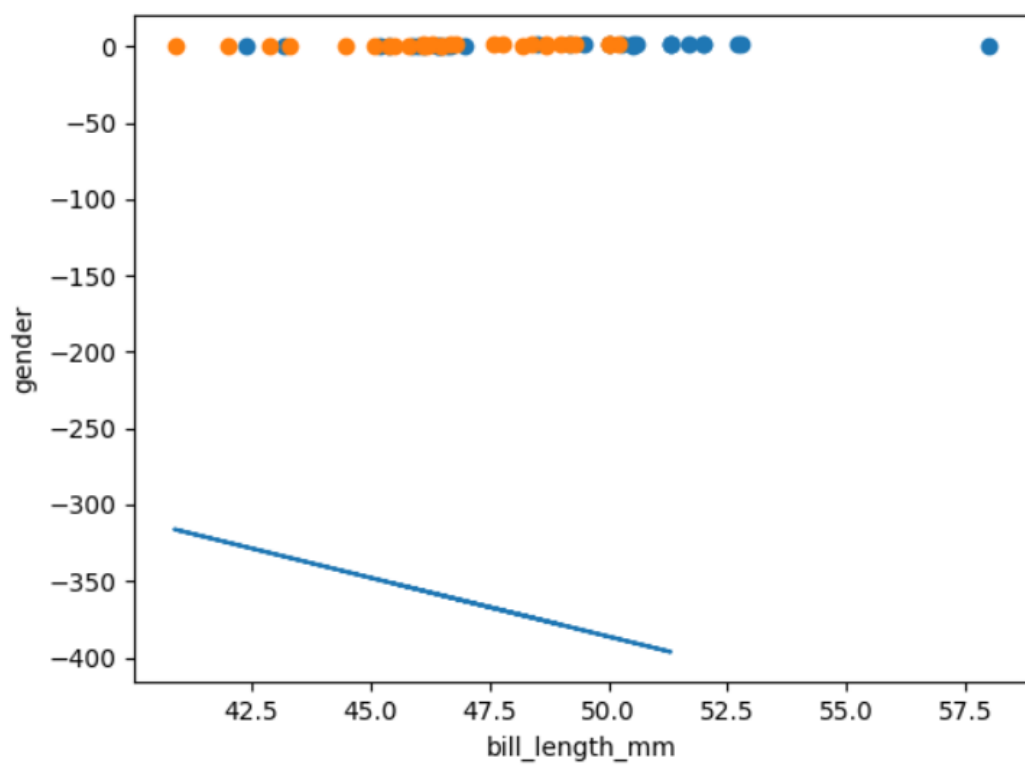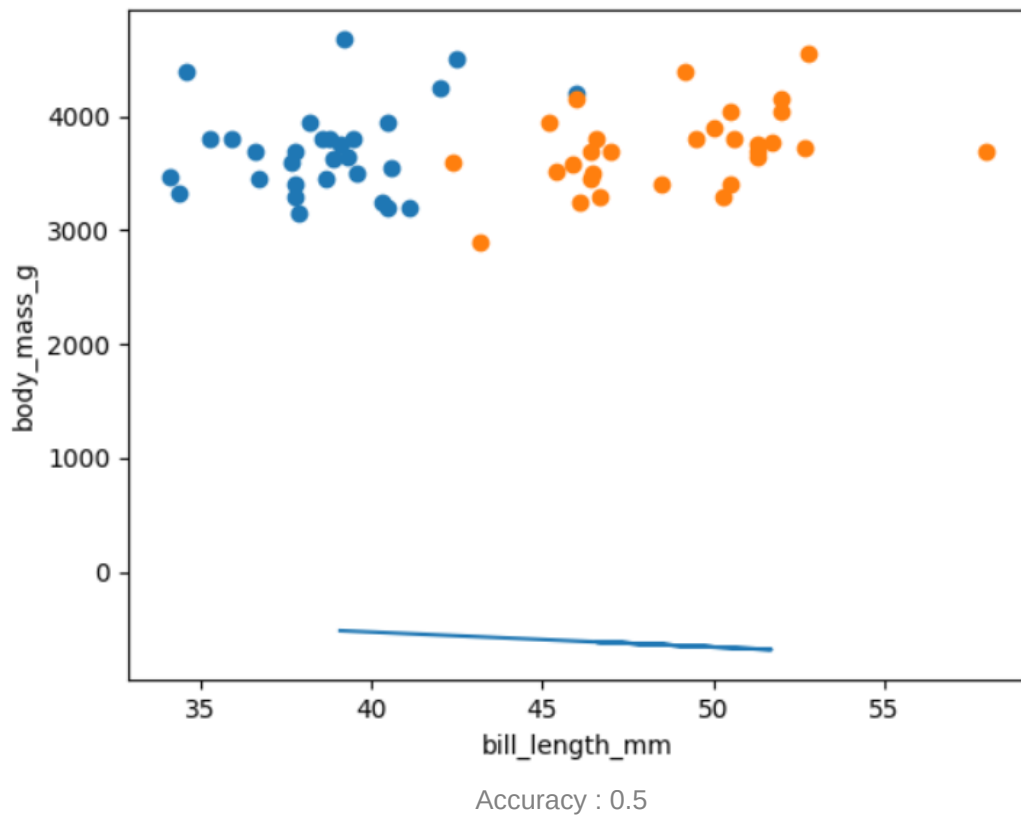
Accuracy : 0.5

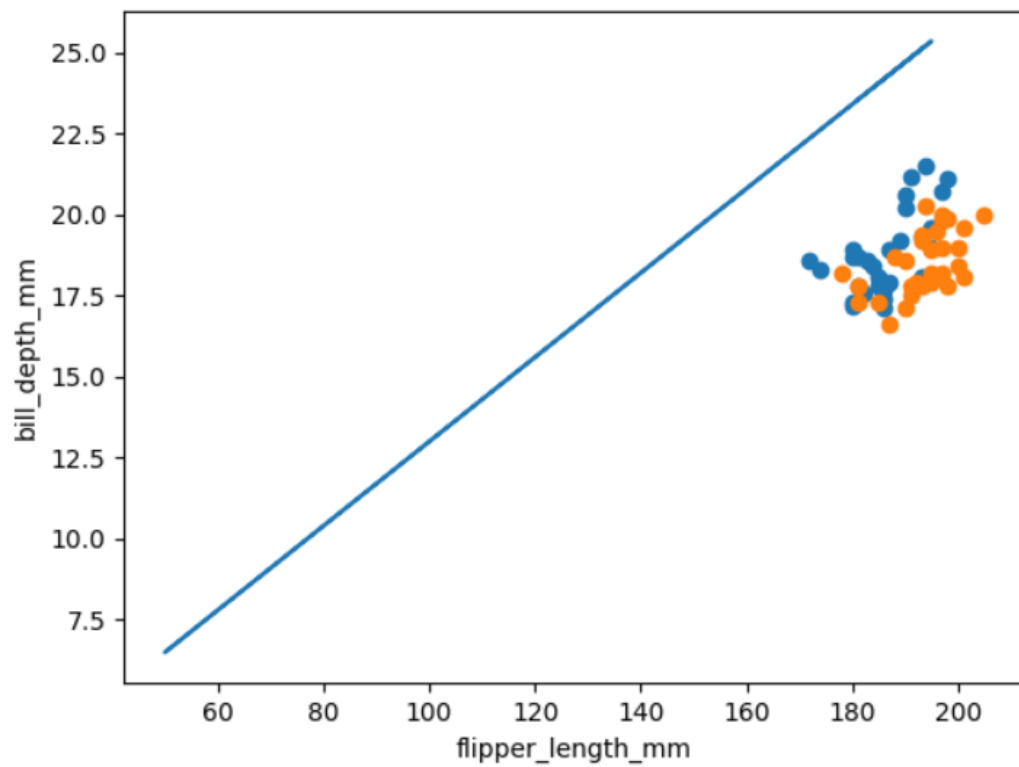Accuracy : 0.5

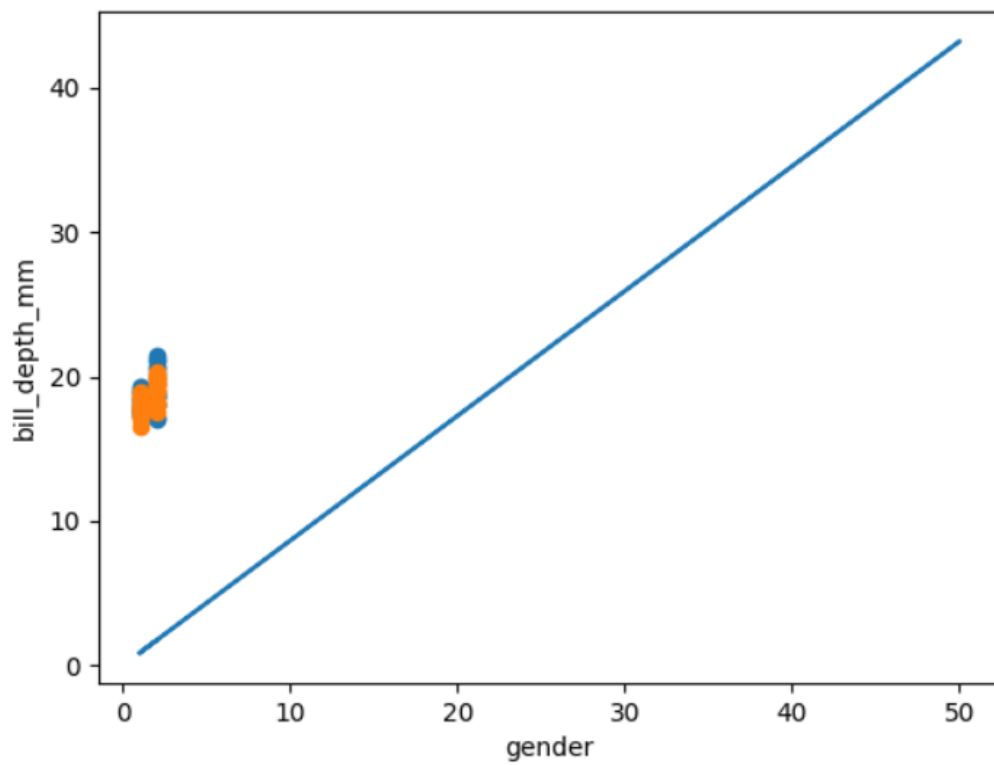## Training With Adelie And Chinstrap:

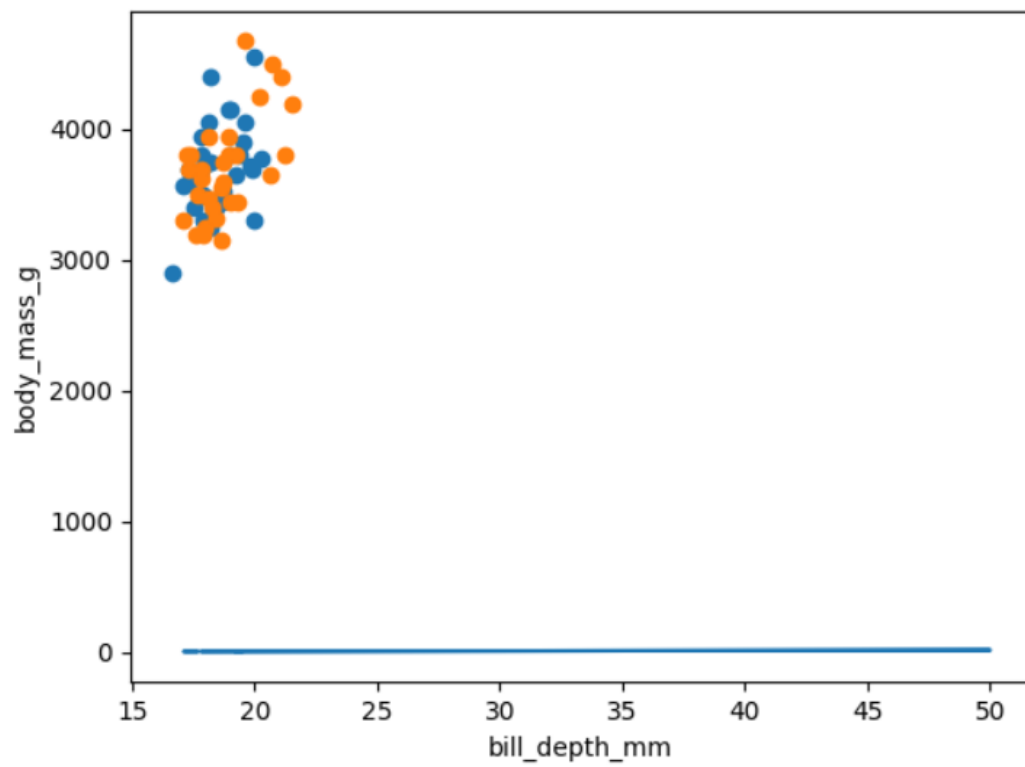Accuracy : 1.0

Accuracy : 0.525

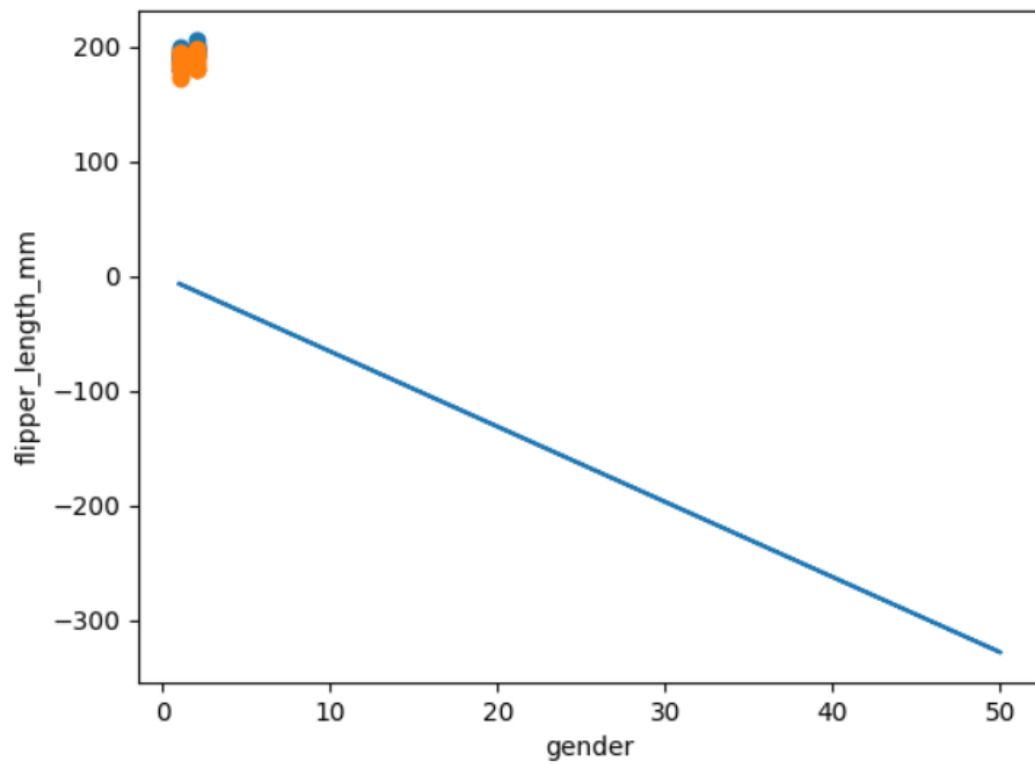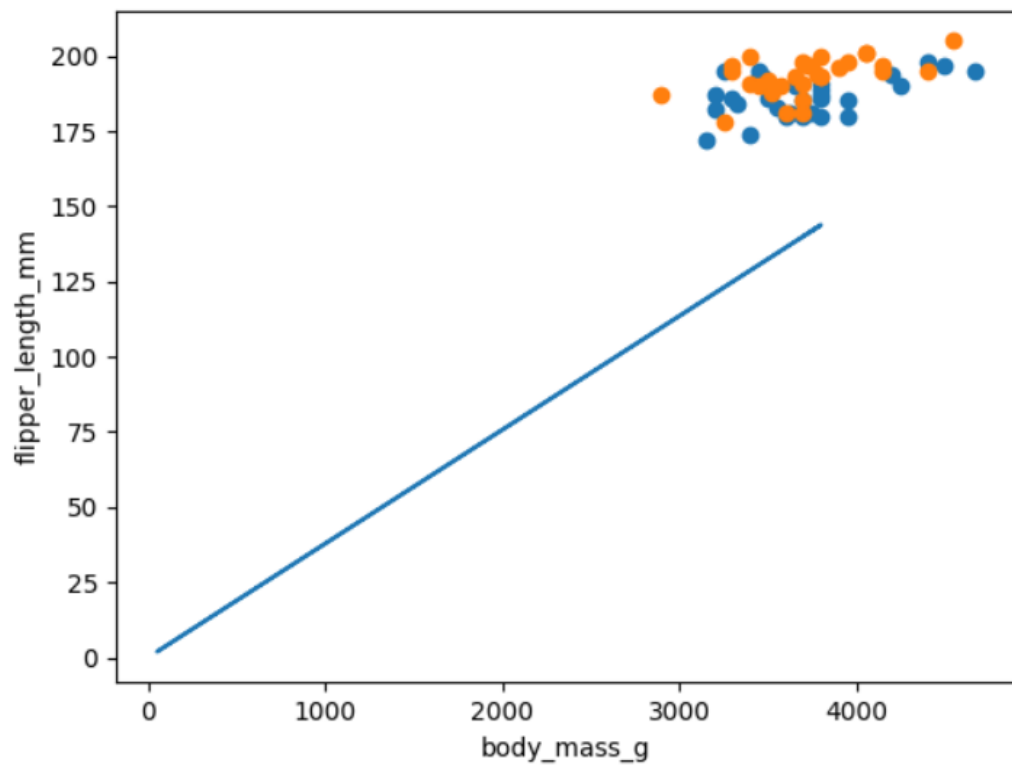Accuracy : 0.5
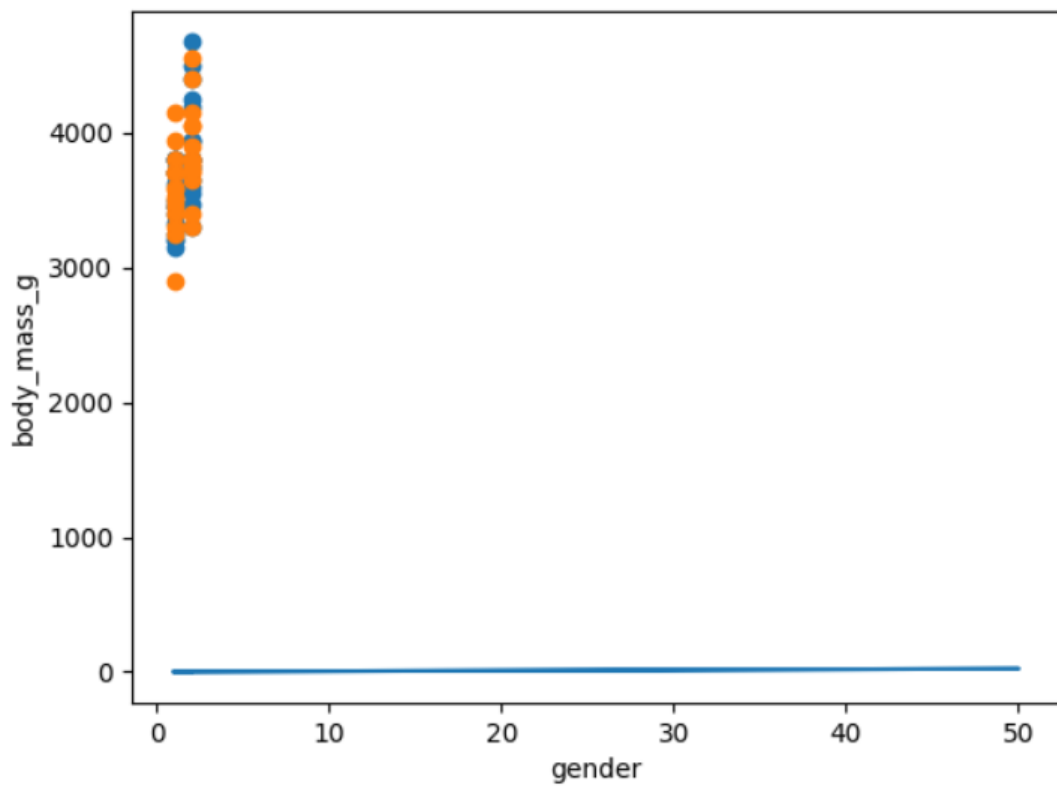
Accuracy : 0.5

Accuracy : 0.5
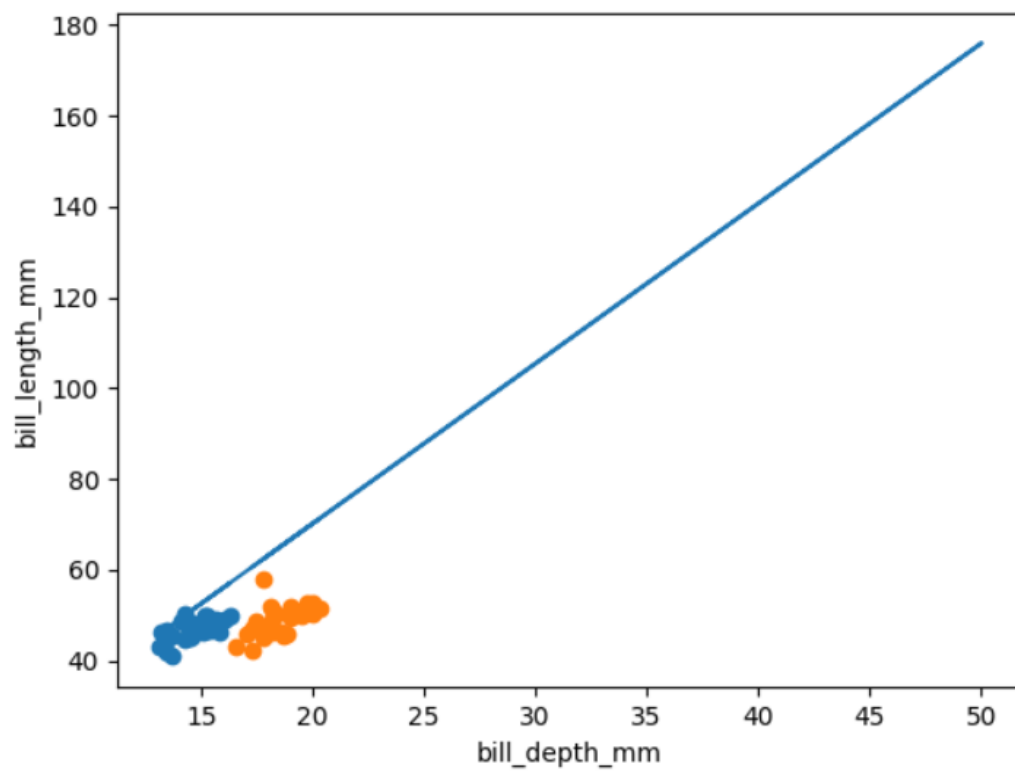
Accuracy : 0.5

Accuracy : 0.5

Accuracy : 0.5

Accuracy : 0.5

Accuracy : 0.5

Training With Chinstrap And Gentoo:

Accuracy : 0.525

Accuracy : 0.525

Accuracy : 0.525

Accuracy : 0.525

Accuracy : 0.975

Accuracy : 0.75

Accuracy : 0.5

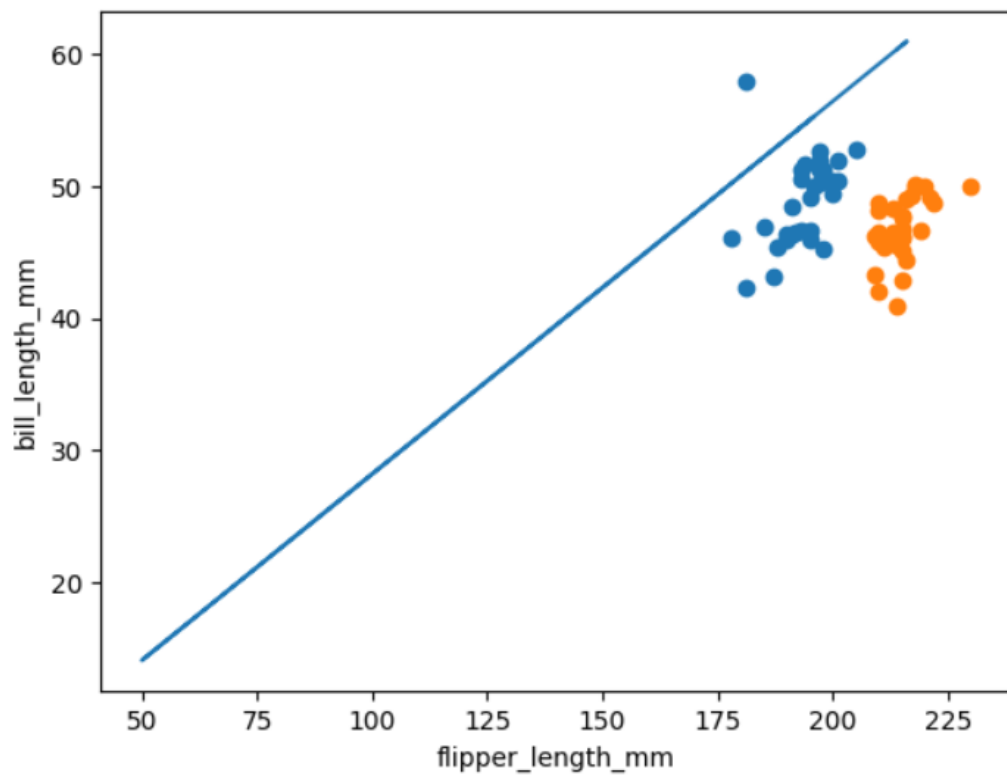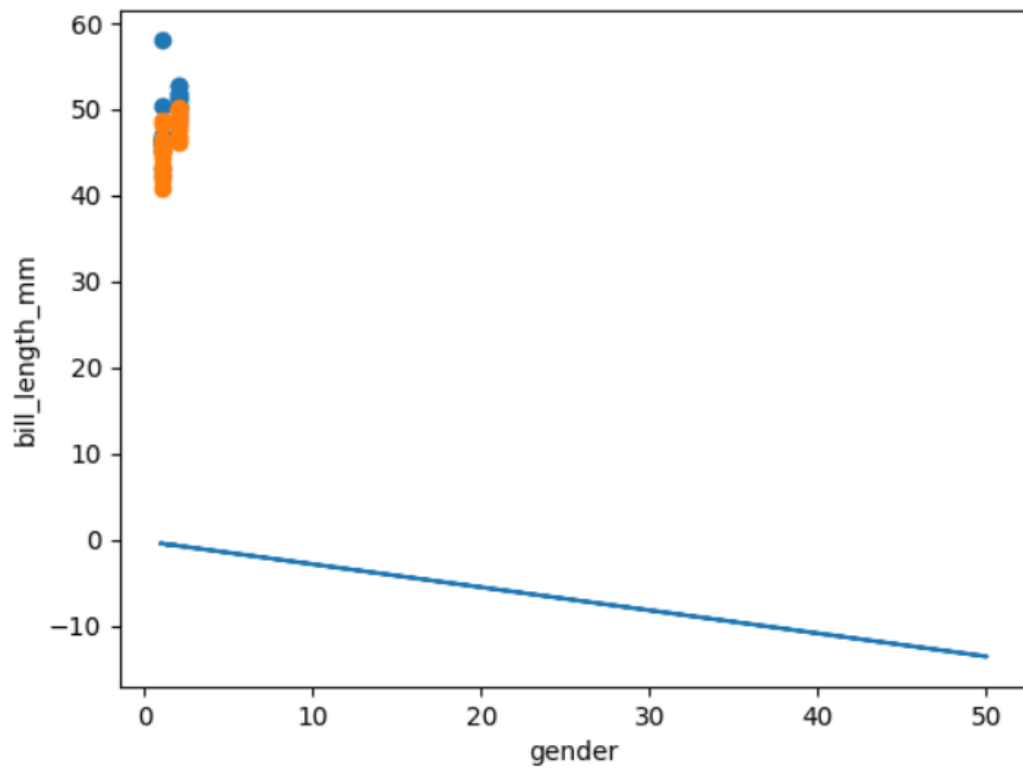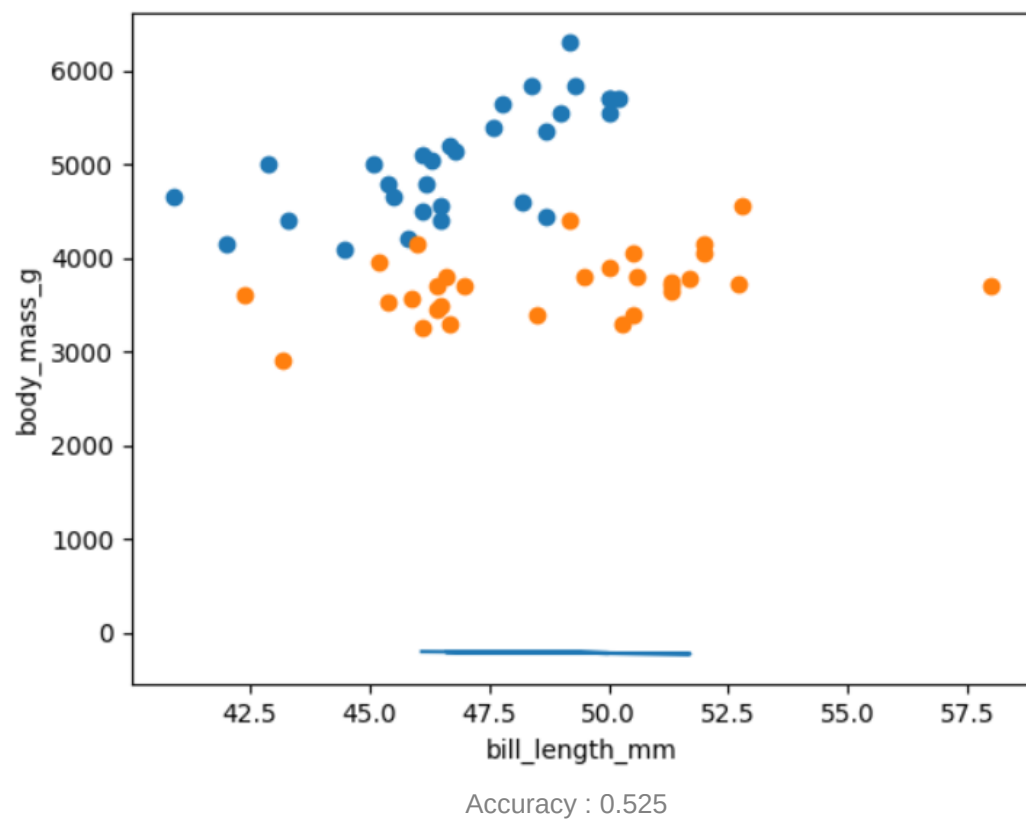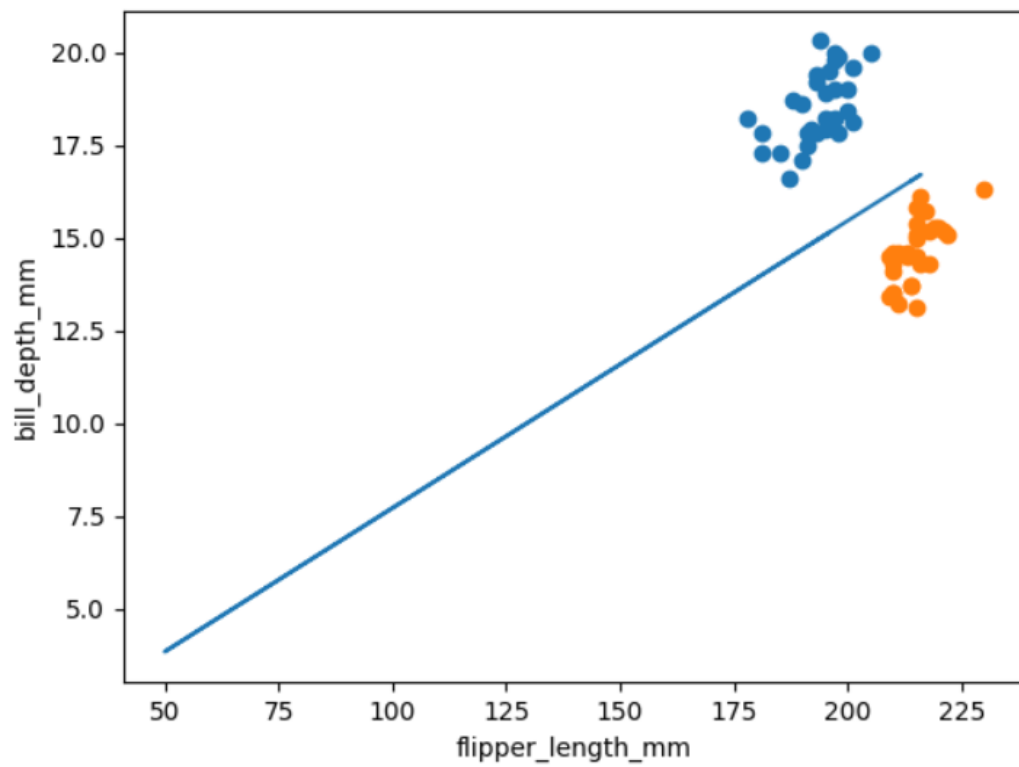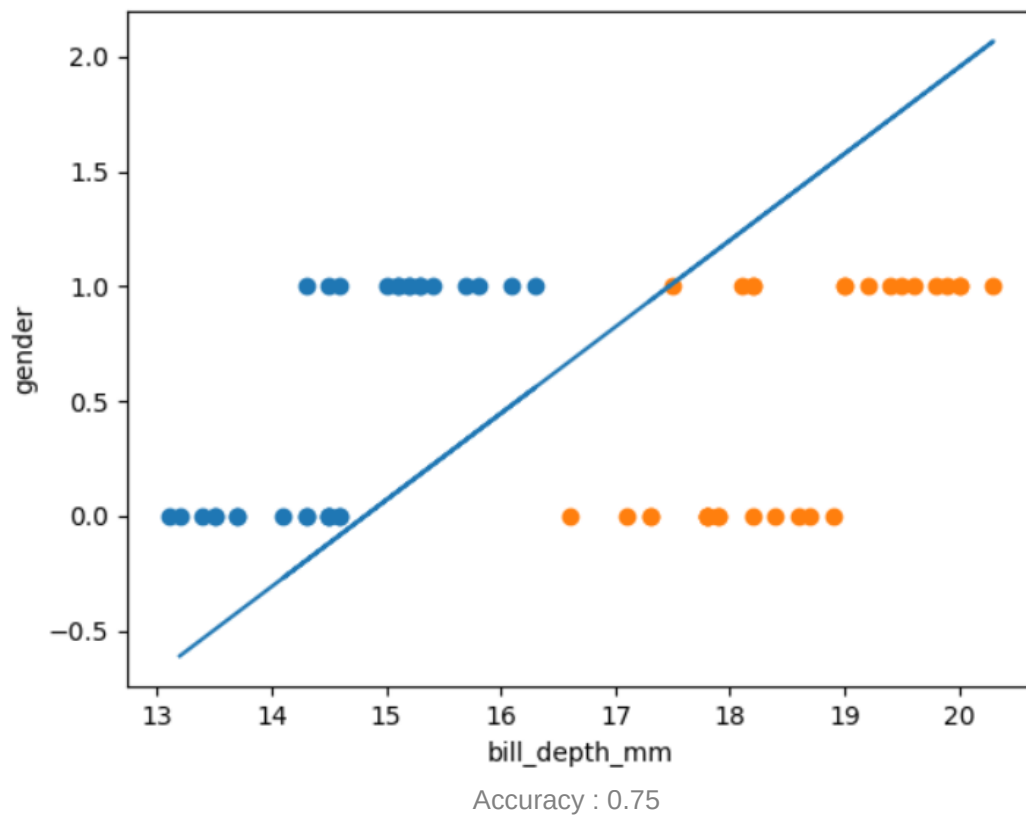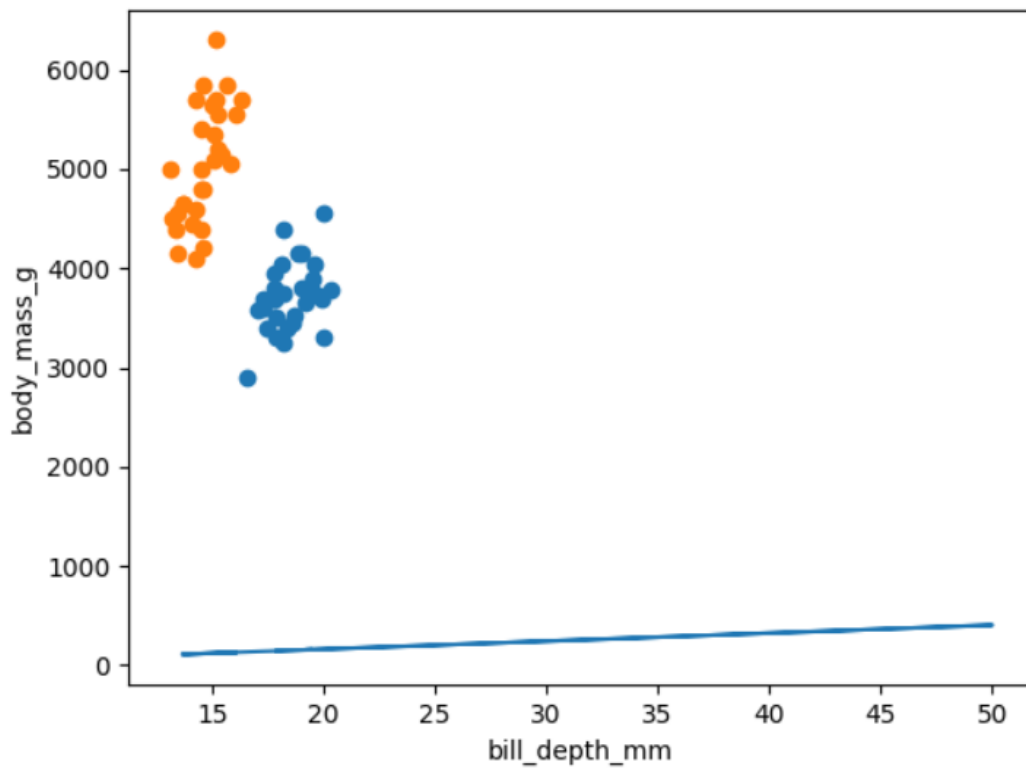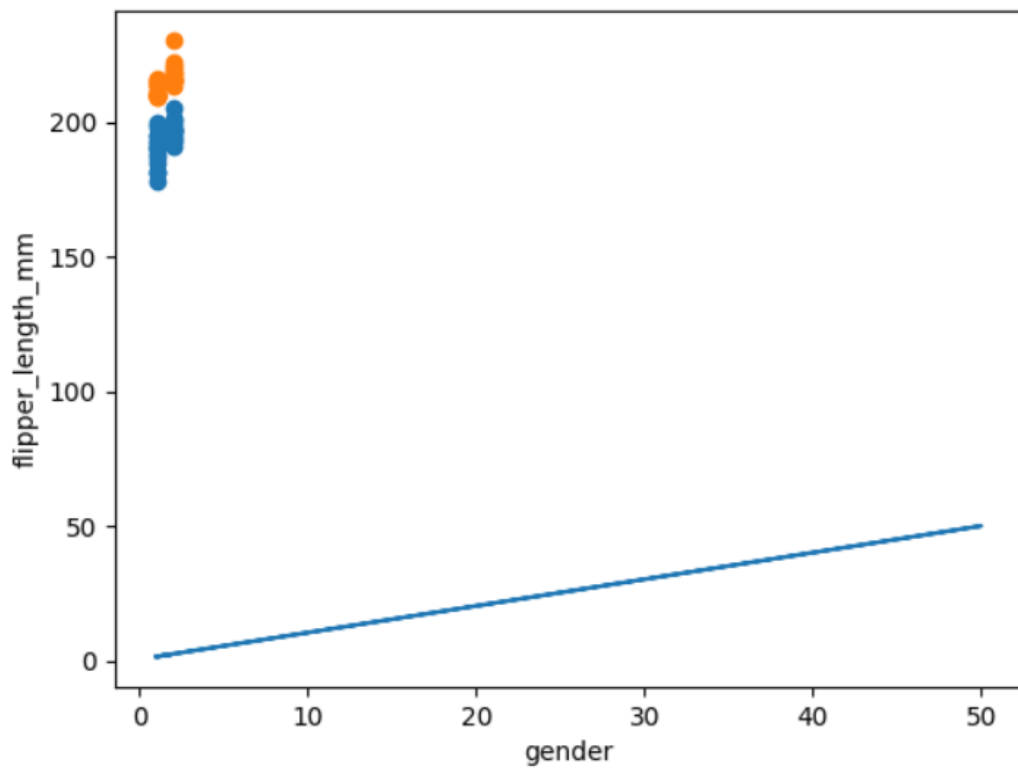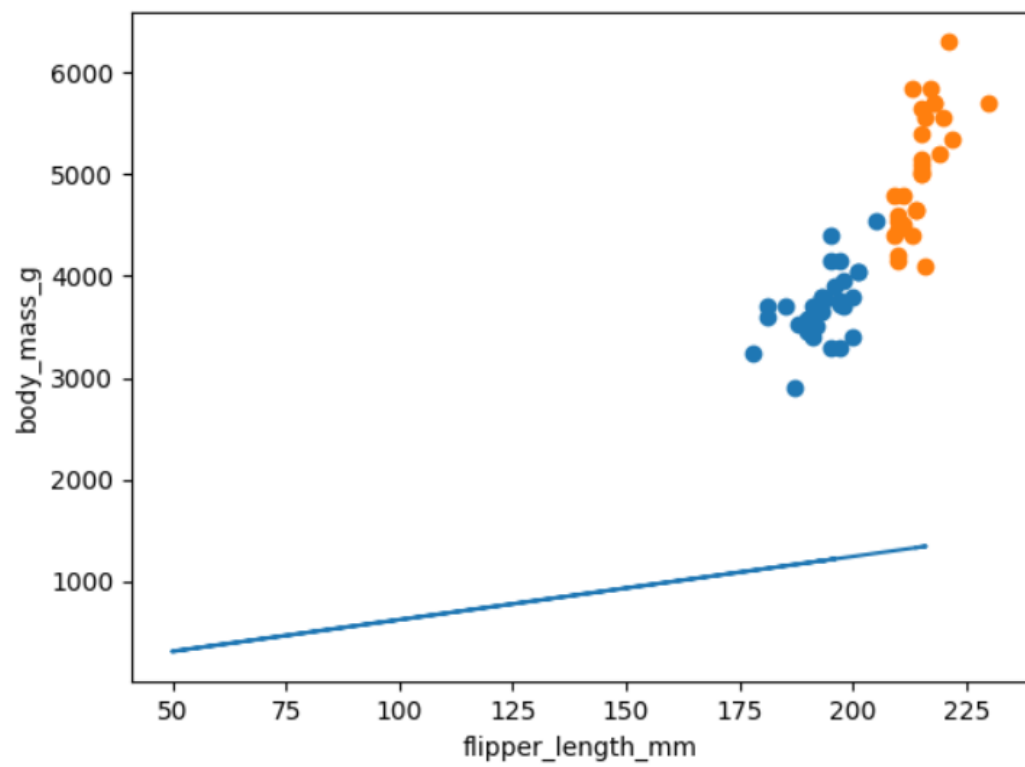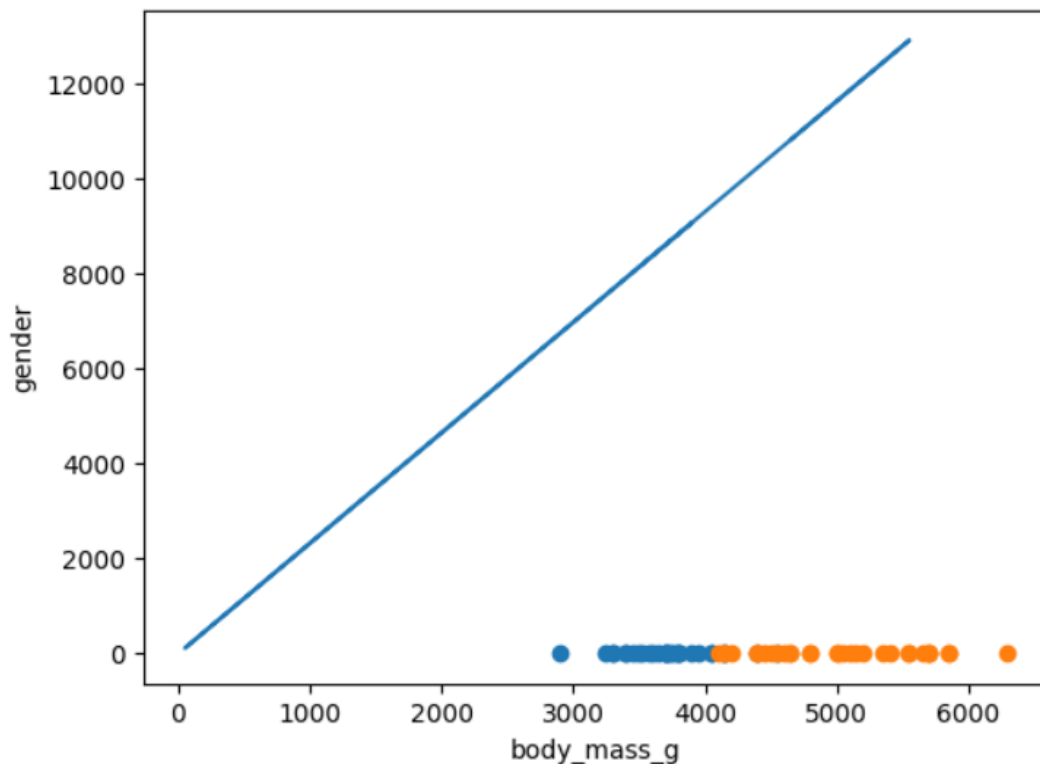Accuracy : 0.5

Accuracy : 0.5

Accuracy : 0.5

Best 2 Features To Train Adelie With Gentoo : bill_length_mm with bill_depth_mm and flipper_length_mm with bill_depth_mm.

Best 2 features To Train Chinstrap And Gentoo : flipper_length_mm with bill_depth_mm.

Best 2 features To Adelie And Chinstrap : bill_length_mm with bill_depth_mm.

While Training With Adelie And Chinstrap Features bill_length_mm with bill_depth_mm made the highest Accuracy = 1.