

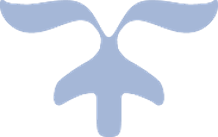
[ **Task 1 – (Penguins)]**

***Neural Networks & deep Learning***

***Scientific Computing Department***

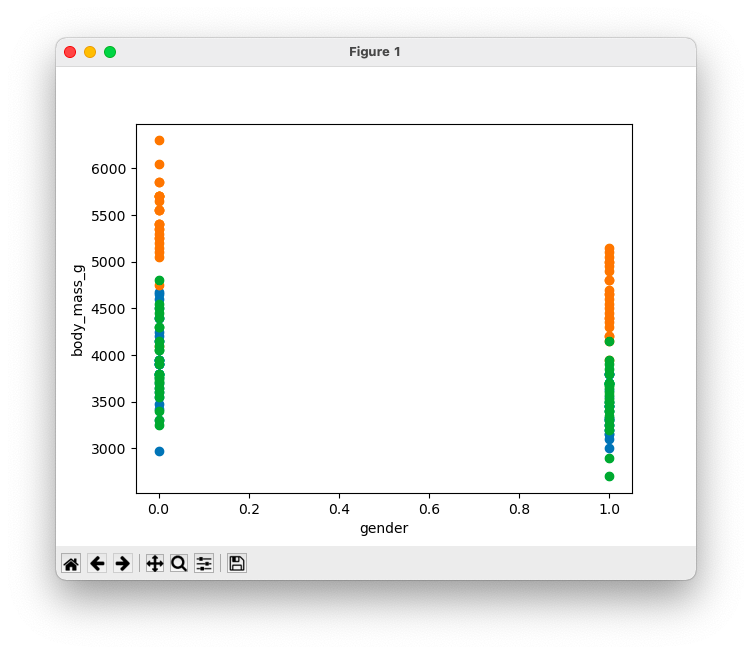
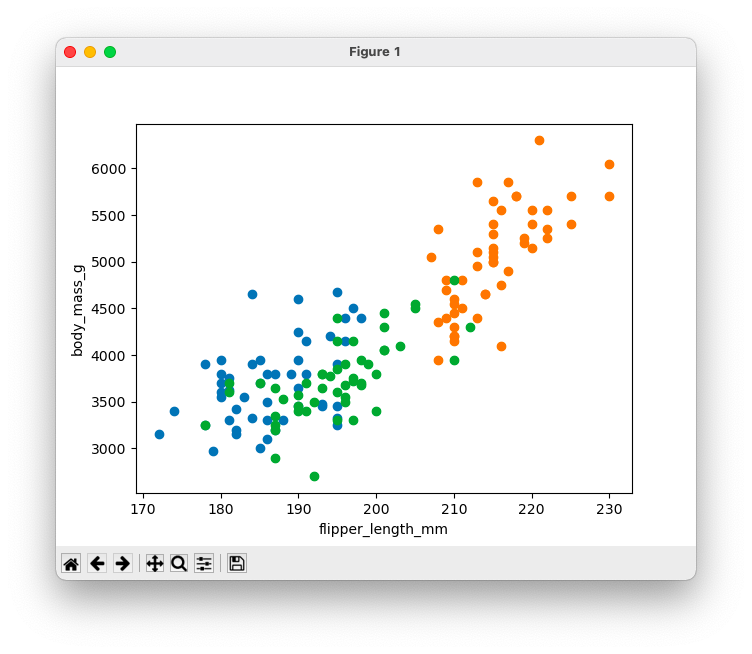
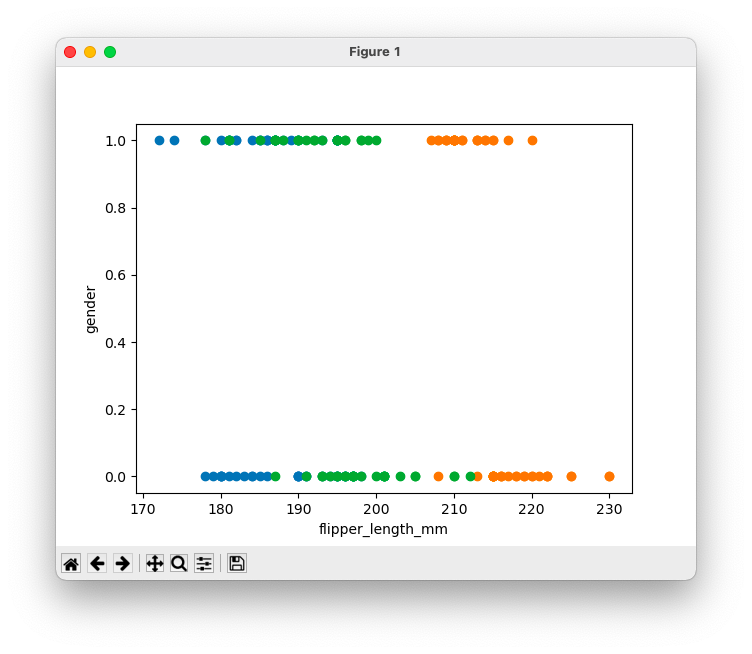
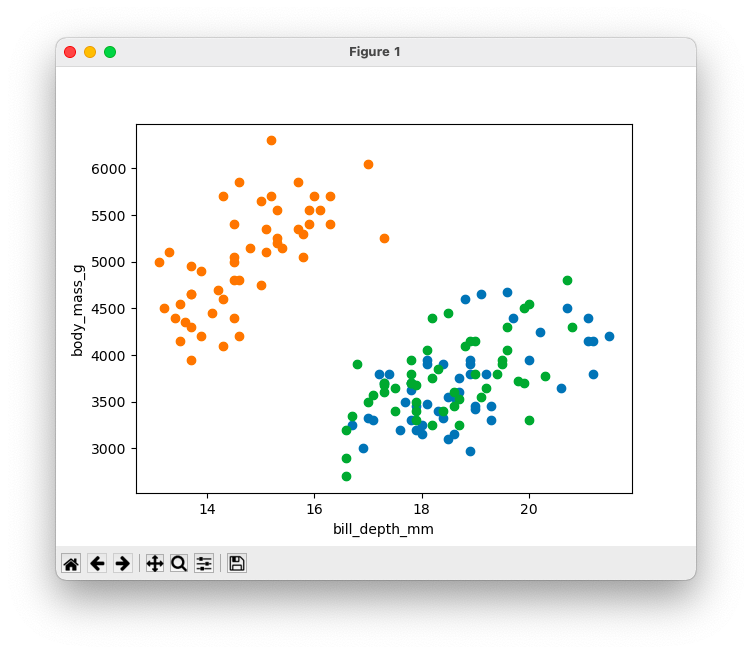
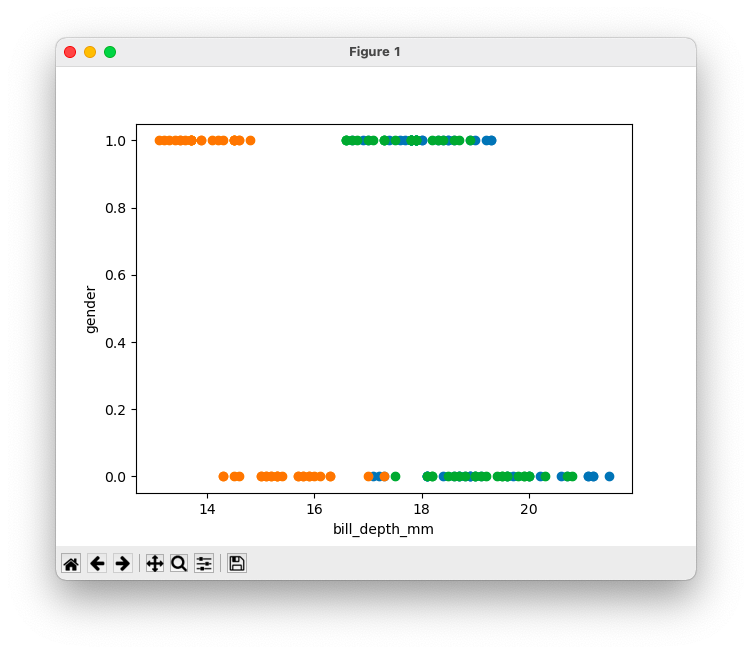
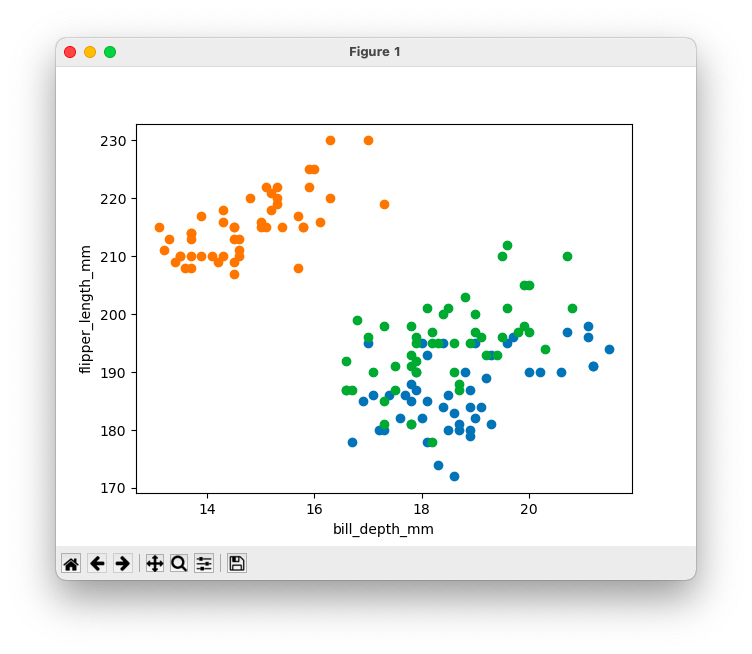
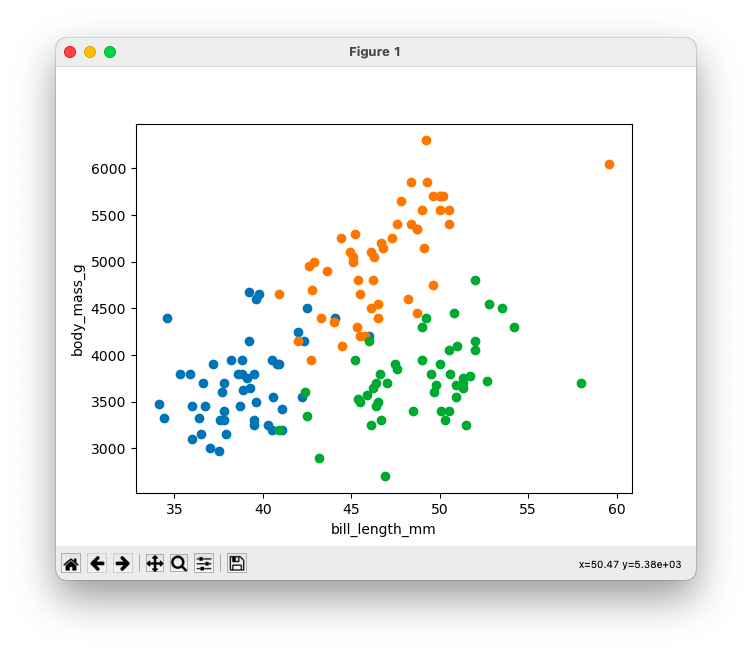
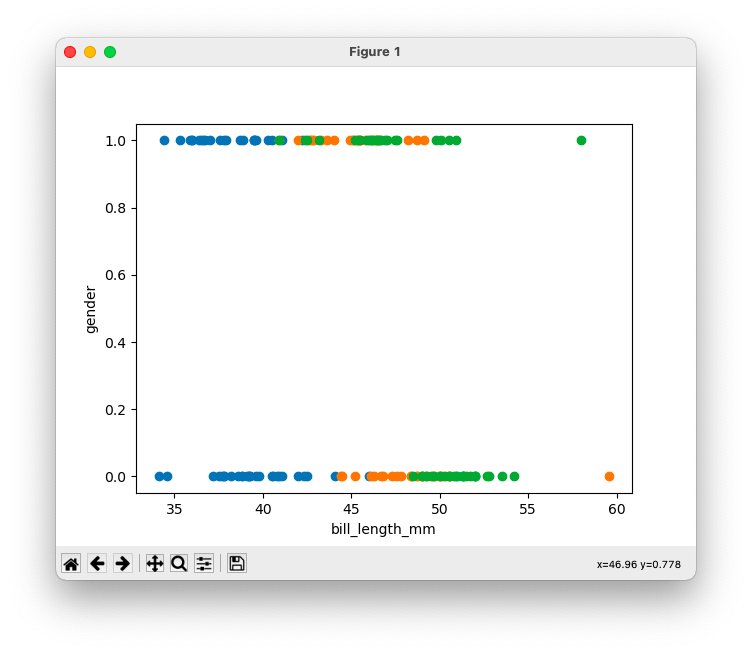
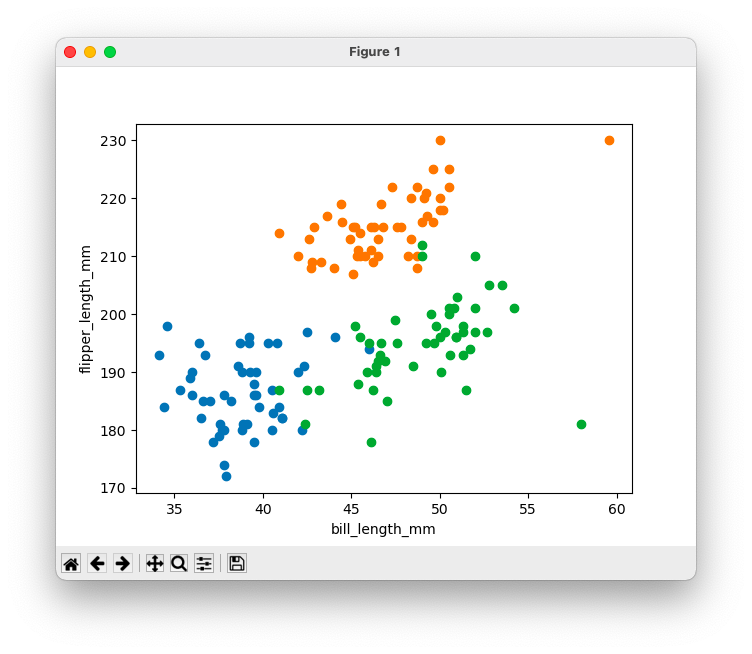
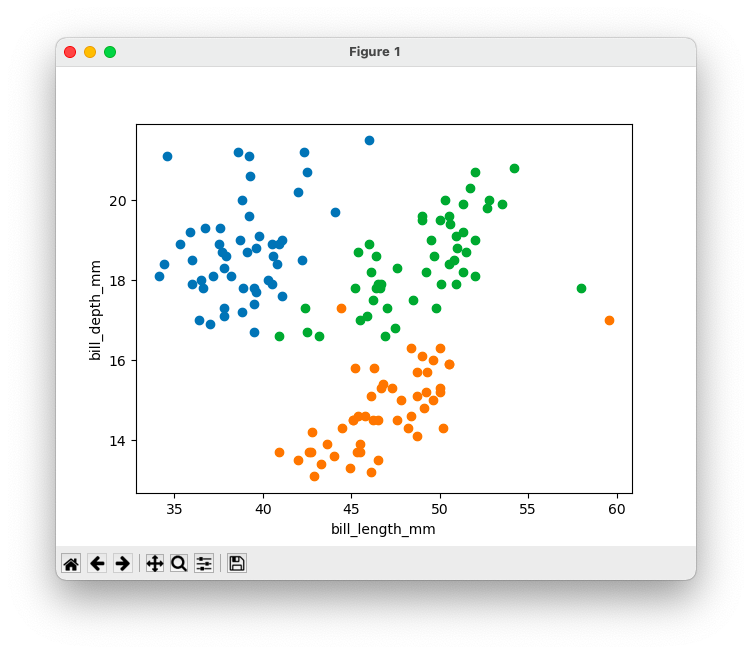
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**Screen Shots:**



* **classes (Adelie, Gentoo):**
  + **features (bill\_length\_mm, bill\_depth\_mm) 🡪 accuracy (1.0)**
  + features (bill\_length\_mm, flipper\_length\_mm) 🡪 accuracy (0.55)
  + features (bill\_length\_mm, gender) 🡪 accuracy (0.425)
  + features (bill\_length\_mm, body\_mass\_g) 🡪 accuracy (0.425)
  + features (bill\_depth\_mm, flipper\_length\_mm) 🡪 accuracy (0.975)
  + features (bill\_depth\_mm, gender) 🡪 accuracy (0.95)
  + features (bill\_depth\_mm, body\_mass\_g) 🡪 accuracy (0.45)
  + features (flipper\_length\_mm, gender) 🡪 accuracy (0.55)
  + features (flipper\_length\_mm, body\_mass\_g) 🡪 accuracy (0.475)
  + features (gender, body\_mass\_g) 🡪 accuracy (0.45)
* **classes (Adelie, Chinstrap):**
  + **features (bill\_length\_mm, bill\_depth\_mm) 🡪 accuracy (1.0)**
  + features (bill\_length\_mm, flipper\_length\_mm) 🡪 Accuracy (0.975)
  + features (bill\_length\_mm, gender) 🡪 accuracy (0.6)
  + features (bill\_length\_mm, body\_mass\_g) 🡪 accuracy (0.45)
  + features (bill\_depth\_mm, flipper\_length\_mm) 🡪 accuracy (0.475)
  + features (bill\_depth\_mm, gender) 🡪 accuracy (0.45)
  + features (bill\_depth\_mm, body\_mass\_g) 🡪 accuracy (0.375)
  + features (flipper\_length\_mm, gender) 🡪 accuracy (0.475)
  + features (flipper\_length\_mm, body\_mass\_g) 🡪 accuracy (0.475)
  + features (gender, body\_mass\_g) 🡪 accuracy (0.475)
* **classes (Gentoo, Chinstrap):**
  + features (bill\_length\_mm, bill\_depth\_mm) 🡪 accuracy (0.575)
  + features (bill\_length\_mm, flipper\_length\_mm) 🡪 accuracy (0.875)
  + features (bill\_length\_mm, gender) 🡪 accuracy (0.55)
  + features (bill\_length\_mm, body\_mass\_g) 🡪 accuracy (0.925)
  + **features (bill\_depth\_mm, flipper\_length\_mm) 🡪 accuracy (1.0)**
  + features (bill\_depth\_mm, gender) 🡪 accuracy (0.975)
  + features (bill\_depth\_mm, body\_mass\_g) 🡪 accuracy (0.55)
  + features (flipper\_length\_mm, gender) 🡪 accuracy (0.525)
  + features (flipper\_length\_mm, body\_mass\_g) 🡪 accuracy (0.8)
  + features (gender, body\_mass\_g) 🡪 accuracy (0.5)

**analysis:**

* The best accuracy between classes **(Gentoo, Chinstrap)** with features (bill\_depth\_mm, flipper\_length\_mm)
* The best accuracy between classes **(ADELIE, GENTOO)**

with features (BILL\_LENGTH\_MM, BILL\_DEPTH\_MM)

* The best accuracy between classes **(Adelie, Chinstrap)**

with features (bill\_length\_mm, bill\_depth\_mm)

Thank You :)