Penguins Classifier based on Single Layer perceptron

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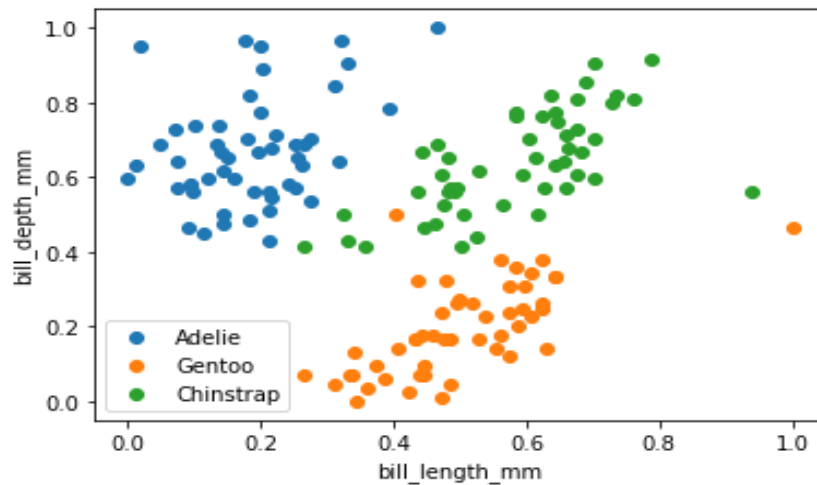
- Adelie class and Gentoo class we can separate between them using (bill_length_mm & bill_depth_mm) features.
- Adelie class and Chinstrap class or Chinstrap class and Gentoo class we can separate between them using features but in less accuracy.
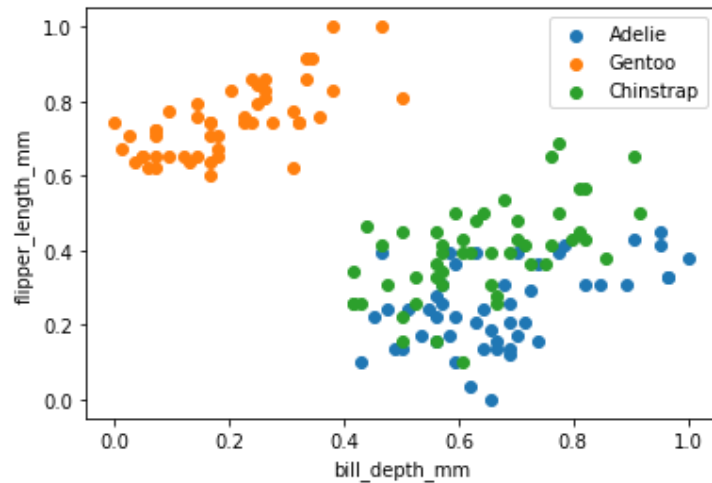
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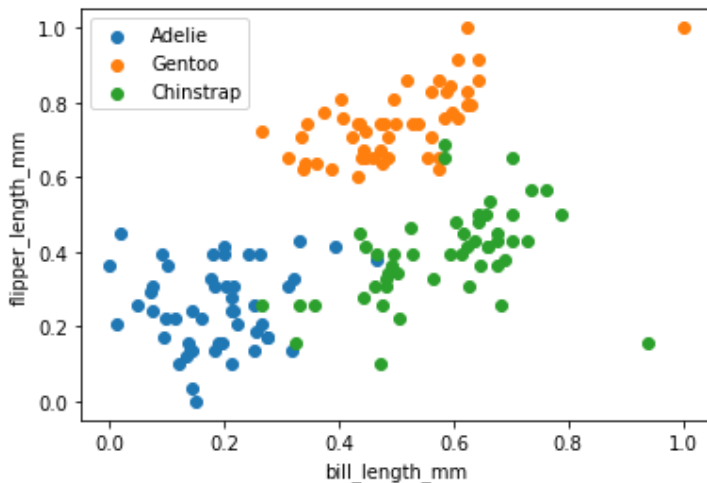
- Gentoo class and Chinstrap class we can separate them perfectly using (bill_length_mm & flipper_lenght_mm) features.
- Adelie class and Gentoo class we can separate them using these features but in less accuracy.
- Adelie class and Chinstrap class we cannot separate them using these two features.
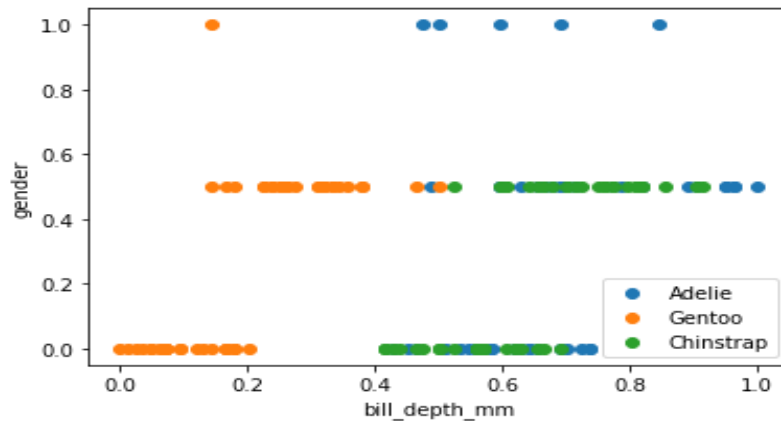
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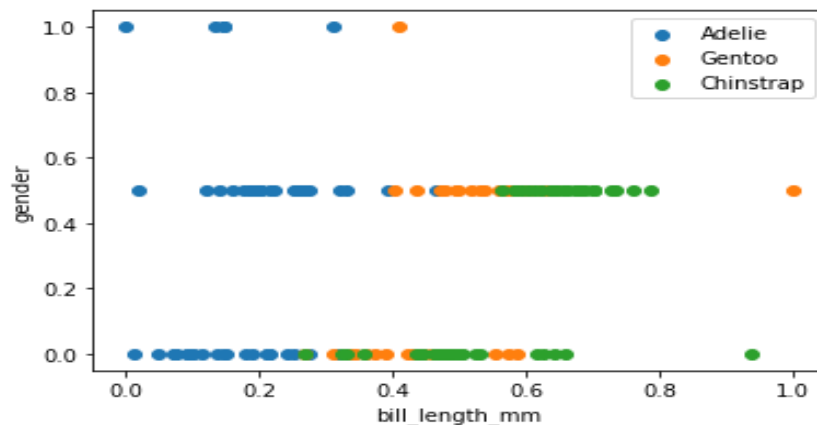
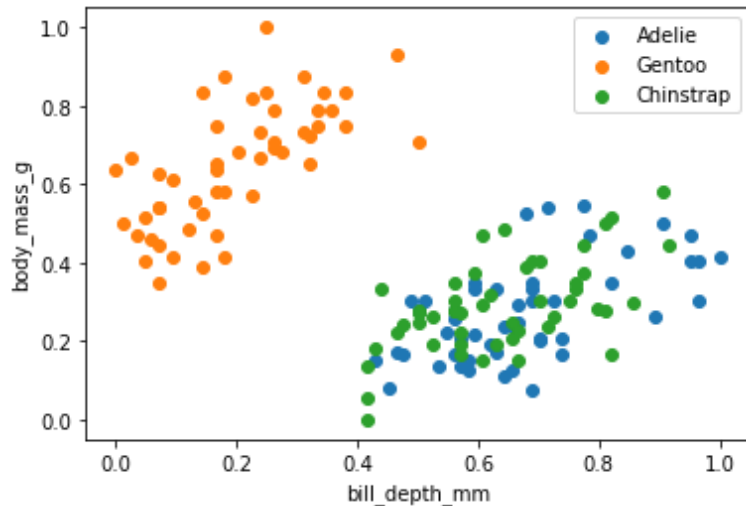- If we use these features(bill_length & gender) we cannot separate between the three classes.

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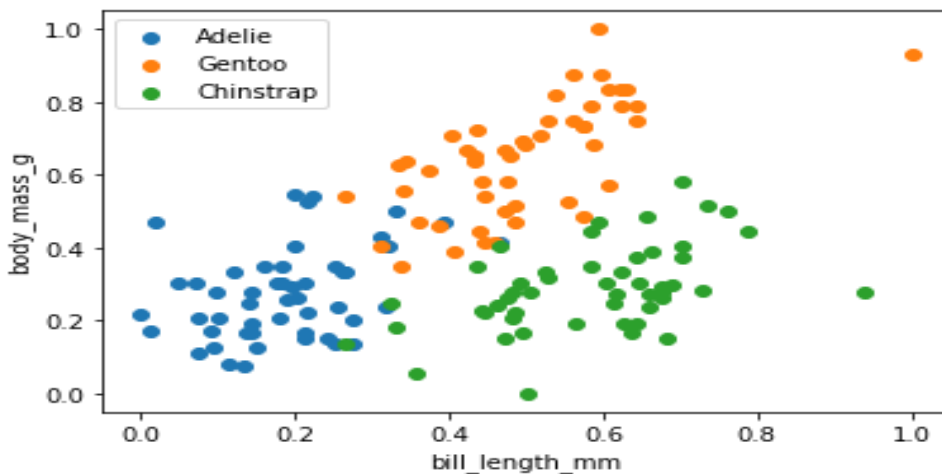
- Gentoo class and Chinstrap class we can separate between them using (bill_length & body_mass) features.
- Gentoo class and Chinstrap class we can separate between using these features.
- Adelie class and Gentoo class we cannot separate these classes using these features.
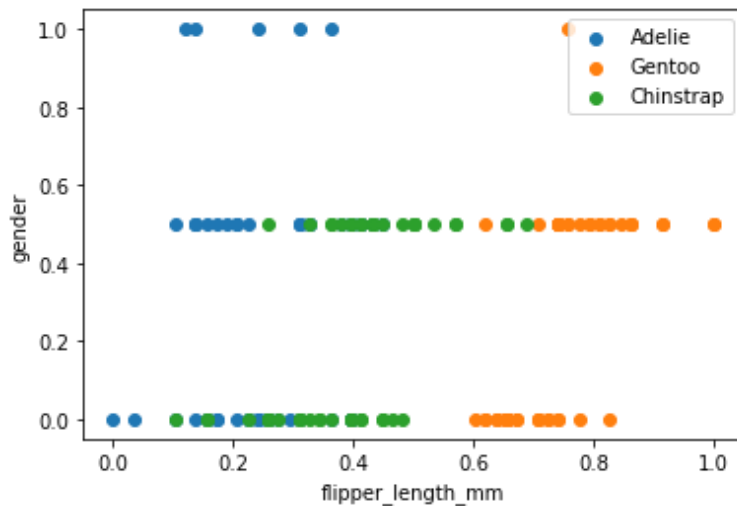
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- Gentoo class and Adelie class we can separate between them perfectly using (bill_depth_mm & flipper_length_mm) features.
- Gentoo class and Chinstrap class we can separate between them perfectly using features.
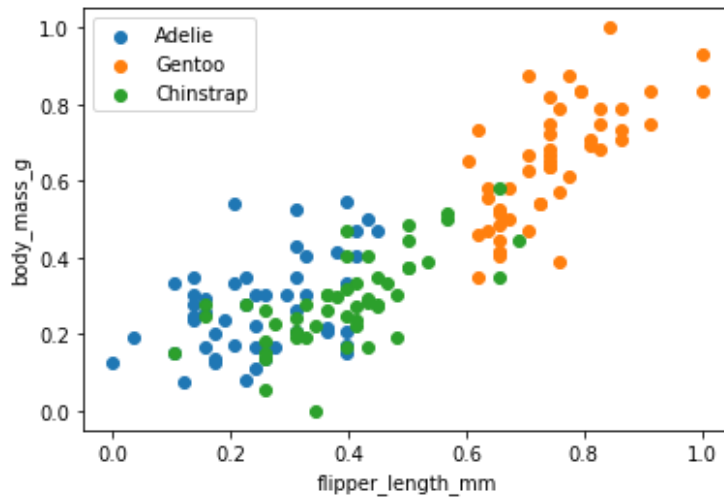- Adelie class and Chinstrap class we cannot separate between them using these two features.

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- If we use these features(bill_depth & gender) we cannot separate between the three classes.

➤

- Adelie class and Gentoo class we can separate them perfectly using (bill_depth_mm & body_mass_g) features.
- Chinstrap class and Gentoo class we can separate them perfectly using these features
- Chinstrap class and Adelie class we cannot separate them using these features.

➤

- If we use these features(flipper_length & gender) we cannot separate between the three classes.

➢

- Adelie class and Gentoo class we can separate them using (flipper_length_mm & body_mass_g) features but in less accuracy.
- Adelie class and Chinstrap class or Gentoo class and Chinstrap class we cannot separate them using these features.

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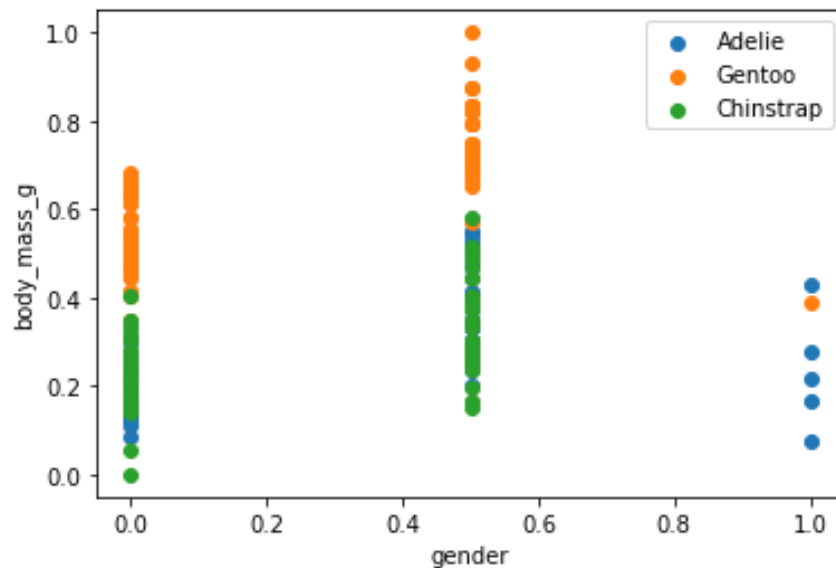
- If we use these features(gender & body_mass) we cannot separate between the three classes.

After running the algorithm we find that we can separate between classes using these features together:

- 1st feature & 5th feature to separate between 2nd class & 3rd class
  (train = 93%   test = 90%)