# Single layer Perceptron (SLP)

## (Class A – Class B), (gender - body\_mass)

A graph with red and blue dots

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 0.9667
* **Test Accuracy:** 0.925
* **Analysis:** These features (gender, body\_mass) could discriminate bet. class A and B

## (Class A – Class C), (gender - body\_mass)

A graph of a train decision boundary

Description automatically generated A blue and white graph

Description automatically generated

* **Train Accuracy:** 0.5
* **Test Accuracy:** 0.5
* **Analysis:** These features (gender, body\_mass) could’t discriminate between class A and C

## (Class A – Class B), (body\_mass – beak\_length)

A graph of a train decision boundary

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Description automatically generated

* **Train Accuracy:** 0.933
* **Test Accuracy:** 0.875
* **Analysis:** These features (body\_mass, beak\_length) could discriminate between class A and B

## (Class B – Class C), (body\_mass – beak\_length)

A graph of a train decision boundary

Description automatically generated A blue squares with white text

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* **Train Accuracy:** 0.9833
* **Test Accuracy:** 0.8
* **Analysis:** These features (body\_mass, beak\_length) could discriminate between class B and C

## (Class B – Class C), (beak\_length – beak\_depth)

A graph with red and blue dots

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 1.0
* **Test Accuracy:** 0.975
* **Analysis:** These features (beak\_length, beak\_depth) could discriminate between class B and C

## (Class A – Class B), (beak\_length – fin\_length)

A graph with red and blue dots

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 1.0
* **Test Accuracy:** 0.9
* **Analysis:** These features (beak\_length, fin\_length) could discriminate bet. class A and B

## (Class A – Class B), (beak\_depth – fin\_length)

A graph of a line with red and blue dots

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 1.0
* **Test Accuracy:** 0.975
* **Analysis:** These features (beak\_depth, fin\_length) could discriminate bet. class A and B

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## (Class A – Class B), (beak\_length – fin\_length)

A graph of a train decision boundary

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 1.0
* **Test Accuracy:** 0.975
* **Analysis:** These features (beak\_length, fin\_length) could discriminate bet. class A and B

## (Class A – Class B), (beak\_depth – fin\_length)

A graph of red and blue dots

Description automatically generated A diagram of a test confusion matrix

Description automatically generated

* **Train Accuracy:** 1.0
* **Test Accuracy:** 1.0
* **Analysis:** These features (beak\_depth, fin\_length) could discriminate bet. class A and B

## (Class A – Class C), (gender – beak\_depth)

A graph with red and blue dots

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 0.51667
* **Test Accuracy:** 0.6
* **Analysis:** These features (gender, beak\_depth) could’t discriminate between class A and C

## (Class B – Class C), (body\_mass – fin\_length)

A diagram of a train decision boundary

Description automatically generated A blue squares with white text

Description automatically generated

* **Train Accuracy:** 0.95
* **Test Accuracy:** 0.95
* **Analysis:** These features (body\_mass, fin\_length) could discriminate bet. class B and C

## (Class B – Class C), (body\_mass – beak\_depth)

A diagram of a train decision boundary

Description automatically generated A diagram of a test confusion matrix

Description automatically generated

* **Train Accuracy:** 1.0
* **Test Accuracy:** 1.0
* **Analysis:** These features (body\_mass, beak\_depth) could’t discriminate between class A and C