

REPORT

Iris Flower Dataset:

The following images have been generated from training the iris flower dataset with respect to different combinations with hyperparameters as

1. learning_rate = 0.05
2. max_epochs=1000,
3. patience=3

How to run the program:

➤ **python3 script.py**

script.py file on the project root contains the necessary code to initialize 3 models – Logistic Regression and Linear Discriminant Analysis i.e. 2 for each variant.

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PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

● nts/ml-assignments/assignment-2/script.py

Expected target values  [0 0 0 0 0 1 1 1 1 1 2 2 2 2 2]

MODEL-1: Logistic Regression – features # sepal length / width
Predictions [0 0 0 0 0 2 1 1 2 2 1 2 2 2 2]
Accuracy – model1: 0.7333333333333333

MODEL-1-LDA: features # sepal length / width
Predictions [0 0 0 0 0 2 1 1 2 2 1 2 2 2 2]
Accuracy – model1_LDA: 0.7333333333333333

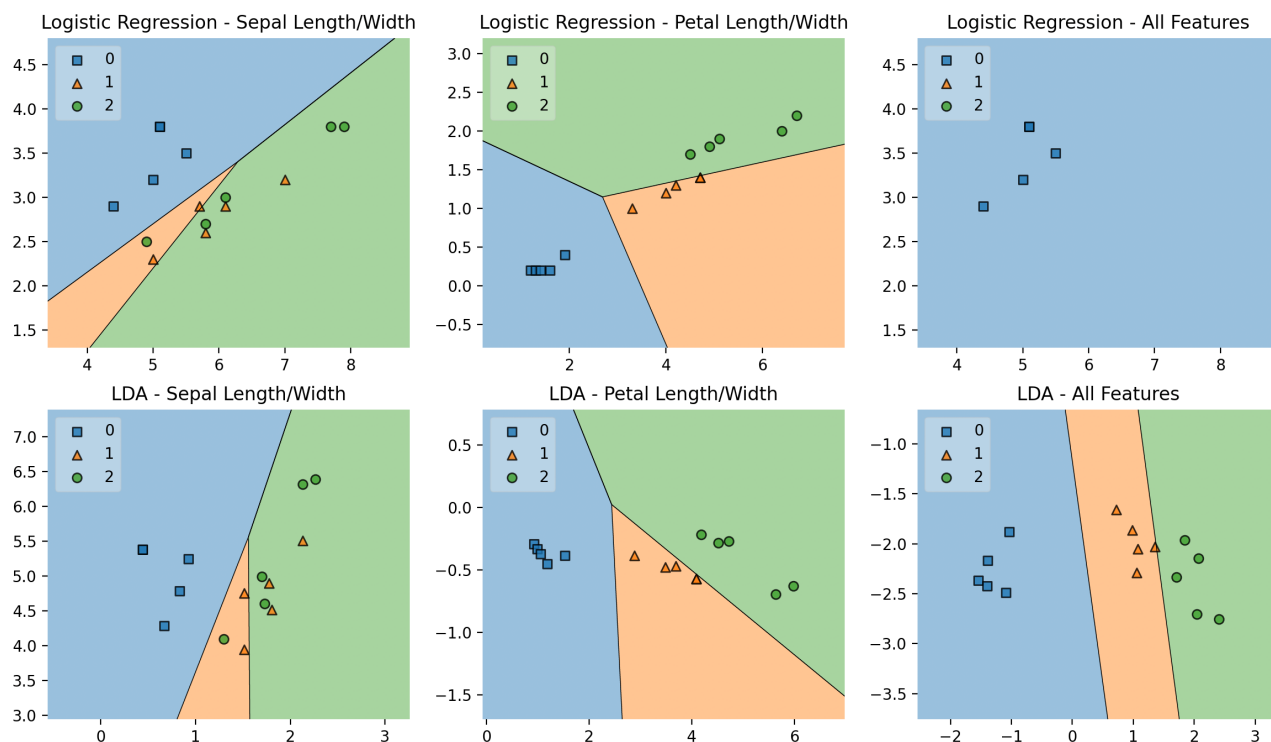
MODEL-2: Logistic Regression – features # petal length / width
Predictions [0 0 0 0 0 1 1 1 1 1 2 2 2 2 2]
Accuracy – model2: 1.0

MODEL-2-LDA: features # petal length / width
Predictions [0 0 0 0 0 1 1 1 1 1 2 2 2 2 2]
Accuracy – model2_LDA: 1.0

Model-3: Logistic Regression– all features
Predictions [0 0 0 0 0 1 1 1 1 1 2 2 2 2 2]
Accuracy – model3: 1.0

Model-3: LDA – all features
Predictions [0 0 0 0 0 1 1 1 1 1 2 2 2 2 2]
Accuracy – model3_LDA: 1.0

○ (envs) (base) raviailani@Ravis-MacBook-Air ml-assignments %
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Configurations

The above plot has been generated on a randomly sorted dataset. If consistent results are needed, ***please set randomness_allowed variable to False.***