```
fold 1 samples: 75
fold 2 samples: 75
-----Linear Regression------
-----Training on fold 1 and testing on fold 2-----
Accuracy on fold 2: 0.9733
Confusion Matrix on full dataset:
[[50 0 0]
[ 0 47 3]
[ 0 1 49]]
Classification Report for full dataset:
               precision recall f1-score support
   Iris-setosa
                   1.00
                            1.00
                                     1.00
                                               50
                  0.98
0.94
Iris-versicolor
                            0.94
                                     0.96
                                               50
                            0.94
0.98
Iris-virginica
                                     0.96
                                               50
                                     0.97
                                              150
      accuracy
                  0.97
                            0.97
                                     0.97
     macro avg
                                              150
                  0.97
                                     0.97
  weighted avg
                           0.97
                                              150
-----Training on fold 2 and testing on fold 1------
Accuracy on fold 1: 0.9600
Confusion Matrix on full dataset:
[[50 0 0]
[ 0 48 2]
[ 0 4 46]]
Classification Report for full dataset:
              precision recall f1-score support
   Iris-setosa
                  1.00
                          1.00
                                     1.00
                                               50
                 0.92 0.96
0.96 0.92
Iris-versicolor
                                     0.94
                                               50
Iris-virginica
                  0.96
                            0.92
                                     0.94
                                               50
                                     0.96
                                              150
      accuracy
                 0.96 0.96
     macro avg
                                     0.96
                                              150
  weighted avg
                  0.96
                            0.96
                                     0.96
                                              150
------Polynomial Regression (degree 2)-----------
------Training on fold 1 and testing on fold 2--------
Accuracy on fold 2: 0.9467
Confusion Matrix on full dataset:
[[50 0 0]
[ 0 47 3]
0 1 4911
Classification Report for full dataset:
               precision
                        recall f1-score
                                           support
                   1.00
                            1.00
                                     1.00
                                               50
   Iris-setosa
Iris-versicolor
                  0.98
                            0.94
                                     0.96
                                               50
Iris-virginica
                  0.94
                            0.98
                                     0.96
                                               50
                                     0.97
                                              150
      accuracy
              0.97 0.97
                                     0.97
     macro avg
                                              150
```

0.97 0.97 0.97 150 weighted avg -----Training on fold 2 and testing on fold 1-----Accuracy on fold 1: 0.9867 Confusion Matrix on full dataset: [[50 0 0] [0 49 1] [0 1 49]] Classification Report for full dataset: precision recall f1-score support 1.00 Iris-setosa 1.00 1.00 50 Iris-versicolor 0.98 0.98 0.98 50 Iris-virginica 0.98 0.98 0.98 50 accuracy 0.99 150 0.99 0.99 0.99 150 macro avg weighted avg 0.99 0.99 0.99 150 ------Polynomial Regression (degree 3)------------Training on fold 1 and testing on fold 2-----Accuracy on fold 2: 0.7733 Confusion Matrix on full dataset: [[41 6 3] [8 37 5] [4 7 39]] Classification Report for full dataset: precision recall f1-score support 0.77 0.82 0.80 Iris-setosa 50 0.74 0.74 0.74 Iris-versicolor 50 Iris-virginica 0.83 0.78 0.80 50 150 0.78 accuracy macro avg 0.78 0.78 0.78 150 weighted avg 0.78 0.78 0.78 150 -----Training on fold 2 and testing on fold 1-----Accuracy on fold 1: 0.9067 Confusion Matrix on full dataset: [[50 0 0] [0 48 2] [0 6 44]] Classification Report for full dataset: precision recall f1-score support Iris-setosa 1.00 1.00 1.00 50 Iris-versicolor 0.89 0.96 0.92 50 Iris-virginica 0.96 0.88 0.92 50

0.95

0.95

0.95

0.95

0.95

150

150

150

accuracy

macro avg

weighted avg

0.95

0.95

```
-----Naive Bayes-----
-----Training on fold 1 and testing on fold 2-----
Accuracy on fold 2: 0.9333
Confusion Matrix on full dataset:
[[50 0 0]
 [ 0 46 4]
 [ 0 3 47]]
Classification Report for full dataset:
               precision recall f1-score
                                            support
   Iris-setosa
                   1.00
                            1.00
                                      1.00
                                                50
Iris-versicolor
                   0.94
                            0.92
                                      0.93
                                                50
 Iris-virginica
                   0.92
                            0.94
                                      0.93
                                                50
                                      0.95
                                               150
      accuracy
                   0.95
                            0.95
                                      0.95
                                               150
     macro avg
                   0.95
                            0.95
                                      0.95
  weighted avg
                                               150
-----Training on fold 2 and testing on fold 1-----
Accuracy on fold 1: 0.9600
Confusion Matrix on full dataset:
[[50 0 0]
 [ 0 48 2]
 [ 0 4 46]]
Classification Report for full dataset:
               precision recall f1-score support
   Iris-setosa
                   1.00
                            1.00
                                      1.00
                                                50
Iris-versicolor
                   0.92
                            0.96
                                      0.94
                                                50
 Iris-virginica
                   0.96
                            0.92
                                      0.94
                                                50
                                      0.96
                                               150
      accuracy
                   0.96
                                      0.96
     macro avg
                            0.96
                                               150
  weighted avg
                   0.96
                            0.96
                                      0.96
                                               150
-----K-Nearest Neighbors-----
------Training on fold 1 and testing on fold 2-----
Accuracy on fold 2: 0.9600
Confusion Matrix on full dataset:
[[50 0 0]
 [ 0 48 2]
 [ 0 1 49]]
Classification Report for full dataset:
               precision recall f1-score
                                            support
   Iris-setosa
                   1.00
                            1.00
                                      1.00
                                                 50
Iris-versicolor
                   0.98
                            0.96
                                      0.97
                                                50
Iris-virginica
                   0.96
                            0.98
                                      0.97
                                                50
                                      0.98
                                               150
      accuracy
```

macro avg

weighted avg

0.98

0.98

0.98

0.98

0.98

0.98

150

150

```
-----Training on fold 2 and testing on fold 1-----
Accuracy on fold 1: 0.9600
Confusion Matrix on full dataset:
[[50 0 0]
 [ 0 48 2]
 [ 0 5 45]]
Classification Report for full dataset:
               precision
                          recall f1-score
                                             support
   Iris-setosa
                    1.00
                             1.00
                                      1.00
                                                  50
Iris-versicolor
                    0.91
                             0.96
                                       0.93
                                                  50
                             0.90
Iris-virginica
                    0.96
                                      0.93
                                                  50
      accuracy
                                      0.95
                                                 150
     macro avg
                    0.95
                             0.95
                                      0.95
                                                 150
  weighted avg
                    0.95
                             0.95
                                      0.95
                                                 150
-----Linear Discriminant Analysis-----
-----Training on fold 1 and testing on fold 2-----
Accuracy on fold 2: 0.9867
Confusion Matrix on full dataset:
[[50 0 0]
 [ 0 48 2]
 [ 0 1 49]]
Classification Report for full dataset:
               precision recall f1-score support
   Iris-setosa
                    1.00
                             1.00
                                       1.00
                                                  50
Iris-versicolor
                   0.98
                             0.96
                                      0.97
                                                  50
                    0.96
                             0.98
                                      0.97
                                                  50
 Iris-virginica
                                      0.98
                                                 150
      accuracy
                    0.98
                             0.98
                                      0.98
     macro avg
                                                 150
  weighted avg
                    0.98
                             0.98
                                      0.98
                                                 150
-----Training on fold 2 and testing on fold 1-----
Accuracy on fold 1: 0.9733
Confusion Matrix on full dataset:
[[50 0 0]
[ 0 48 2]
 [ 0 2 48]]
Classification Report for full dataset:
                           recall f1-score
               precision
                                             support
   Iris-setosa
                    1.00
                             1.00
                                       1.00
                                                  50
Iris-versicolor
                    0.96
                             0.96
                                       0.96
                                                  50
 Iris-virginica
                    0.96
                             0.96
                                      0.96
                                                  50
```

0.97

0.97

0.97

150

150

150

accuracy

0.97

0.97

0.97

0.97

macro avg

weighted avg

Confusion Matrix on full dataset: [[50 0 0] [0 46 4] [0 0 50]]

Classification Report for full dataset:

	precision	recall	f1-score	support
Iris-setosa Iris-versicolor Iris-virginica	1.00 1.00 0.93	1.00 0.92 1.00	1.00 0.96 0.96	50 50 50
accuracy macro avg weighted avg	0.98 0.98	0.97 0.97	0.97 0.97 0.97	150 150 150

Confusion Matrix on full dataset:

[[50 0 0] [0 48 2] [0 1 49]]

Classification Report for full dataset:

	precision	recall	f1-score	support
Iris-setosa Iris-versicolor Iris-virginica	1.00 0.98 0.96	1.00 0.96 0.98	1.00 0.97 0.97	50 50 50
1115-VII gillica	0.90	0.90	0.97	50
accuracy			0.98	150
macro avg	0.98	0.98	0.98	150
weighted avg	0.98	0.98	0.98	150