

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
Iris-versicolor	0.98	0.94	0.96	50
Iris-virginica	0.94	0.98	0.96	50
accuracy			0.97	150
macro avg	0.97	0.97	0.97	150
weighted avg	0.97	0.97	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
Iris-versicolor	0.92	0.96	0.94	50
Iris-virginica	0.96	0.92	0.94	50
accuracy			0.96	150
macro avg	0.96	0.96	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 49]]
```

Classification Report for full dataset:

	precision	recall	f1-score	support
Iris-setosa	1.00	1.00	1.00	50
Iris-versicolor	0.98	0.94	0.96	50
Iris-virginica	0.94	0.98	0.96	50
accuracy			0.97	150
macro avg	0.97	0.97	0.97	150

weighted avg	0.97	0.97	0.97	150
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-----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
Iris-setosa	1.00	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
macro avg	0.99	0.99	0.99	150
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
Iris-setosa	0.77	0.82	0.80	50
Iris-versicolor	0.74	0.74	0.74	50
Iris-virginica	0.83	0.78	0.80	50
accuracy			0.78	150
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
accuracy			0.95	150
macro avg	0.95	0.95	0.95	150
weighted avg	0.95	0.95	0.95	150

-----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
accuracy			0.95	150
macro avg	0.95	0.95	0.95	150
weighted avg	0.95	0.95	0.95	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
accuracy			0.96	150
macro avg	0.96	0.96	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
accuracy			0.98	150
macro avg	0.98	0.98	0.98	150
weighted avg	0.98	0.98	0.98	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
Iris-virginica	0.96	0.90	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
Iris-virginica	0.96	0.98	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

-----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:

	precision	recall	f1-score	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
accuracy			0.97	150
macro avg	0.97	0.97	0.97	150
weighted avg	0.97	0.97	0.97	150

-----Quadratic Discriminant Analysis-----  
-----Training on fold 1 and testing on fold 2-----  
Accuracy on fold 2: 0.9600

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	1.00	1.00	1.00	50
Iris-versicolor	1.00	0.92	0.96	50
Iris-virginica	0.93	1.00	0.96	50
accuracy			0.97	150
macro avg	0.98	0.97	0.97	150
weighted avg	0.98	0.97	0.97	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  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
accuracy			0.98	150
macro avg	0.98	0.98	0.98	150
weighted avg	0.98	0.98	0.98	150