Experiment - 8

Project Report.(23/CS/062)

Model Comparision (Validation Accuracy ..)
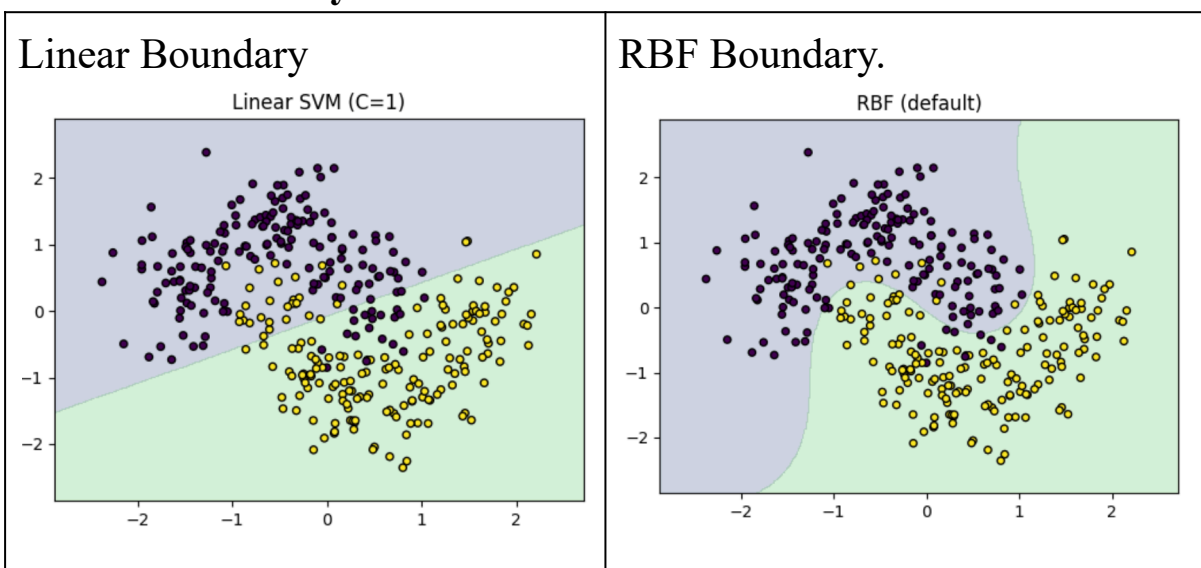
- For Linear , RBF and Poly.

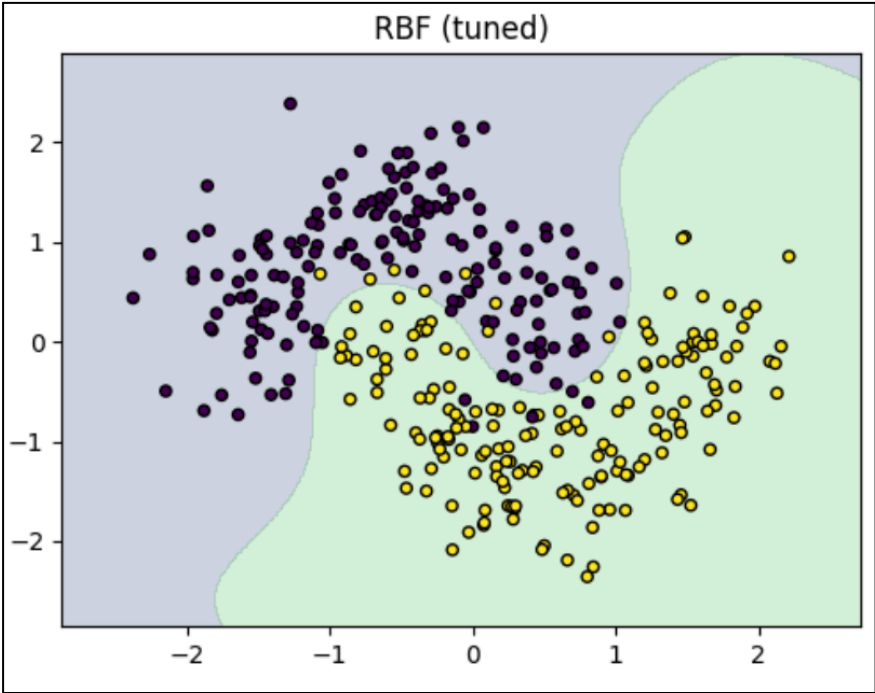|	Model	Validation Accuracy
0	Linear (C=1)	0.840000
1	RBF (default)	0.946667
2	Poly (degree=3)	0.840000

- Grid SearchCV.

```
Best Params: {'C': 1, 'gamma': 1, 'kernel': 'rbf'}
Best CV Accuracy: 0.9542857142857143
```

Decision Boundary Plots.

Linear Boundary

RBF Boundary.

RBF Tuned (Best Boundary).

RBF (tuned)

CONFUSION MATRIX.

Final tuned RBF accuracy: 0.9533333333333334

Classification report (Final tuned RBF):

	precision	recall	f1-score	support
0	0.95	0.96	0.95	75
1	0.96	0.95	0.95	75
accuracy			0.95	150
macro avg	0.95	0.95	0.95	150
weighted avg	0.95	0.95	0.95	150

Confusion Matrix (Final tuned RBF)