

Different classification accuracy every time machine learning model has been trained on the same dataset

Training three different classifiers on the **same dataset** using the **same features extractor**



KNN with k=1,3,5,7,9,11,13

Naive Bayes

Logistic Regression



Output obtained from the first-time execution:

3-NN, accuracy: 0.67, Confusion Matrix:

```
[[ 9  3  4]
 [ 4 11  2]
 [ 3  0 12]]
```

NAIVE BAYES: Accuracy: 0.83, Confusion Matrix:/n

```
[[15  0  1]
 [ 2 13  2]
 [ 2  1 12]]
```

LOGISTICAL REGRESSION: Accuracy: 0.71, Confusion matrix:

```
[[13  2  1]
 [ 5 11  1]
 [ 4  1 10]]
```



Output obtained from the second-time execution:

3-NN, accuracy: 0.65, Confusion Matrix:

```
[[11  2  3]
 [ 3 13  1]
 [ 7  1  7]]
```

NAIVE BAYES: Accuracy: 0.85, Confusion Matrix:/n

```
[[15  1  0]
 [ 1 14  2]
 [ 1  2 12]]
```

LOGISTICAL REGRESSION: Accuracy: 0.79, Confusion matrix:

```
[[13  0  3]
 [ 0 14  3]
 [ 1  3 11]]
```