

project2/writeup.md

# project 2 writeup

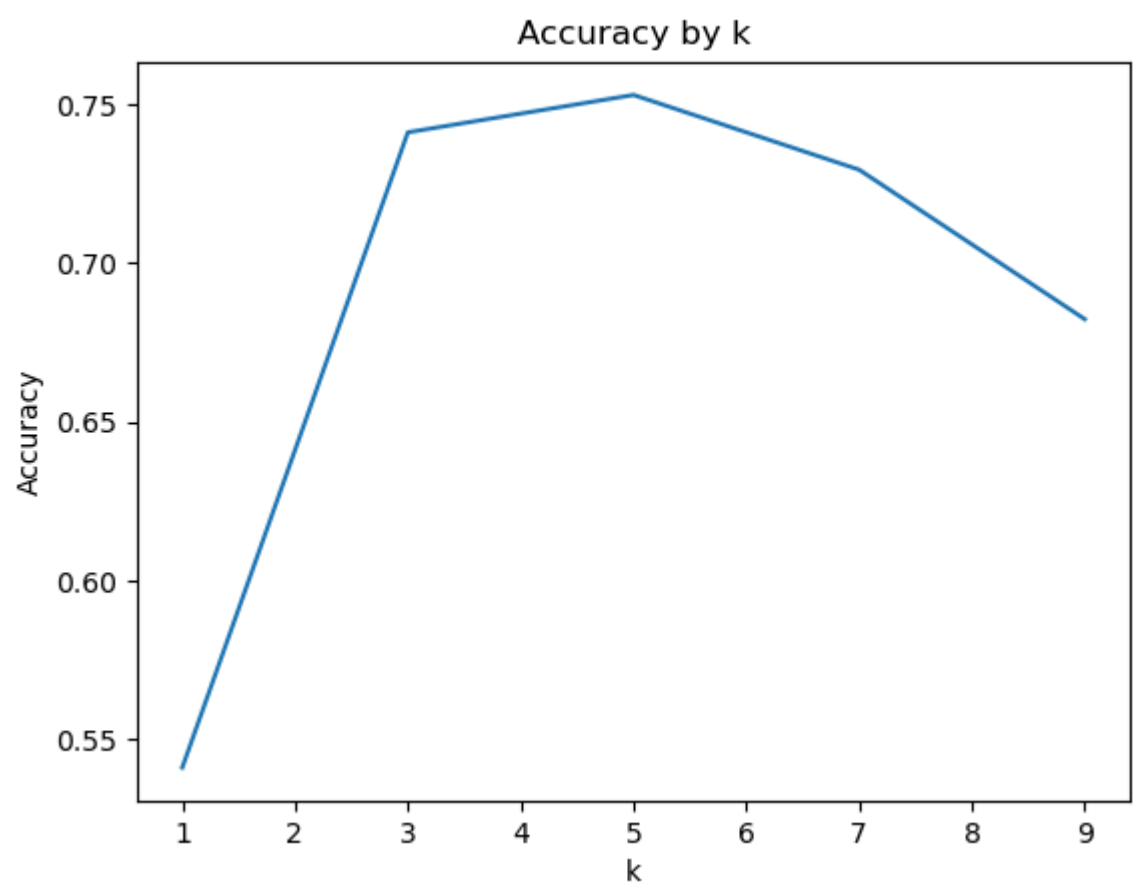
## problem description

this project is about creating a QC testing algortim using knn classification and kfold cross validation to determin optimal k value and apply this to the testing dataset for capacitors.

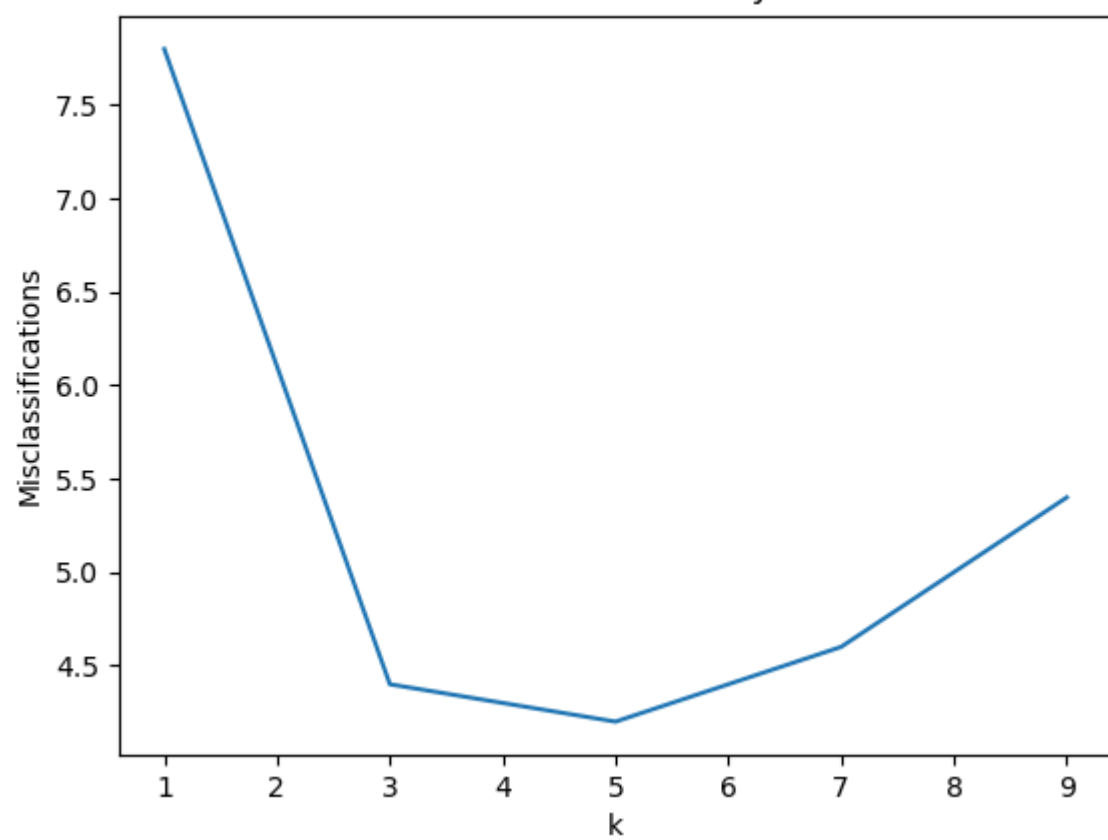
## procedure decription

- import training data
- use old knn function
- define folds and knns
- for each knn
  - for each fold
    - split data and train
    - test and record accuracy
  - record average accuracy
- find best knn
- import testing data
- use best knn to predict
- export predictions

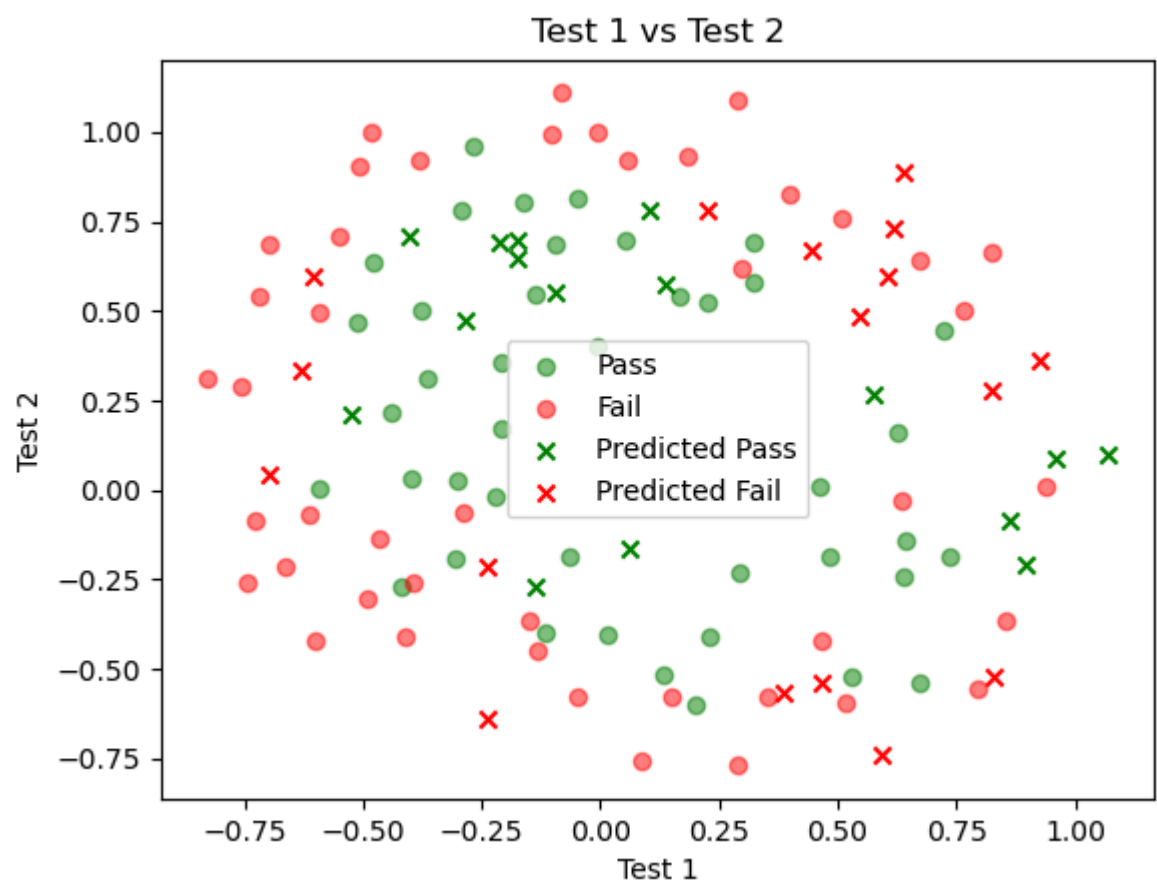
# graphs



Misclassifications by k



# final results



	Predicted 0		Predicted 1
Actual 0	10		6
Actual 1	7		10

accuracy: 0.6061, precision: 0.6250, recall: 0.5882, f1: 0.6061