Implementation detail

- SVM
  - SVM (kernel = rbf, degree = 3, gamma = scale, random state = 1 , probability = True)
- Logistic regression
  - LogisticRegression (penalty = L2,max_iter = 100, random state = 1)
- Decision Tree
  - DecisionTreeClassifier(splitter = best, max_depth = 3, *criterion = gini,* min_samples_split = 2, min_samples_leaf = 1)
- Voting classifier
  - VotingClassifier(estimators ,voting = 'soft')
- Bagging Classifier
  - BaggingClassifier(LogisticRegression(random_state=1),n_estimators=100,max_samples 0.75, bootstrap = True, random_state=1,n_jobs = 1)

- A low correlation between ensemble model members will increase the error correcting capability of the model.
- Ensemble reduces the risk of overfitting