

## Ensemble Machine Learning application with heterogeneous algorithm technique

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from sklearn.ensemble import RandomForestClassifier
from sklearn.linear_model import LogisticRegression
from sklearn.neighbors import KNeighborsClassifier
from sklearn.ensemble import VotingClassifier
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

iris = load_iris()
x = iris['data']
y = iris['target']

x_train, x_test, y_train, y_test = train_test_split(x, y,
random_state = 42, train_size = 0.85)

log_clf = LogisticRegression()
rnd_clf = RandomForestClassifier()
knn_clf = KNeighborsClassifier()

vot_clf = VotingClassifier(estimators = [('lr', log_clf), ('rnd',
rnd_clf), ('knn', knn_clf)], voting = 'hard')

vot_clf.fit(x_train, y_train)

pred = vot_clf.predict(x_test)

print("Testing accuracy is : ",accuracy_score(y_test,
pred)*100)
```