✗ Day - 9 ✗

~~✗ ML with python - Day9 ✗~~

1. SVM
2. Decision Tree
3. Bagging model
4. Gradient boosting
5. Random forest

Titanic / Hotel / Diab ⇒ Run all

```
1. from sklearn.tree import DecisionTreeClassifier
2. model3 = DecisionTreeClassifier()
3. model3.fit(X_train, train)
4. model3.score(X_train, y_train)
5. model3.score(X_test, y_test)
```

⇒ 0.71

```
1. from sklearn.ensemble import BaggingClassifier
2. model4 = BaggingClassifier()
```

```
1. from sklearn.ensemble import AdaBoostClassifier
2. model5 = AdaBoostClassifier()
```

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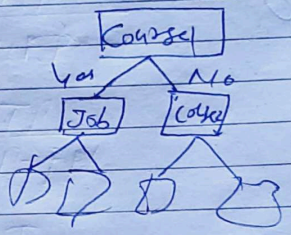
1. from sklearn.ensemble import GradientBoostingClassifier
2. model6 = GradientBoostingClassifier()

1. from sklearn import RandomForestClassifier
2. model7 = RandomForestClassifier()

1. from sklearn.svm import SVC
2. model = SVC.fit

Decision Tree Classifier

⇒ classification Algorithm



⇒ problem is overfitting
{ Train → Good
Test → Bad }

⇒ pruning (max_depth)

Ensemble model

⇒ Group of models in ensemble model

(n_estimators = total no. of model)

base_estimator = model3

Bagging
AdaBoost
Gradient Boost

Random forest ⇒ n_estimators

max_features
(no. of columns to use for modelling)

SVM

Kernel ⇒ Change the dimension of the model
C ⇒
Gamma ⇒