

Training And Testing The Model

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Once after splitting the data into train and test, the data should be fed to an algorithm to build a model. There are several Machine learning algorithms to be used depending on the data you are going to process such as images, sound, text, and numerical values. The algorithms that you can choose according to the objective that you might have it may be Classification algorithms are Regression algorithms. As it is a kind of classification problem you can apply any of the following Algorithms.

- 1.Logistic Regression
- 2.Decision Tree Classifier
- 3.Random Forest Classifier
- 4.KNN

Logistic Regression:

Logistic Regression is used when the dependent variable (target) is categorical.

For example,

To predict whether an email is a spam (1) or (0)

Whether the tumour is malignant (1) or not (0)

Out of all the algorithms Logistic Regression got the highest accuracy so let's build a model with Logistic regression.

We're going to use `x_train` and `y_train` obtained above in the `train_test_split` section to train our decision tree regression model.

```
In [24]: from sklearn.linear_model._logistic import LogisticRegression
         lore = LogisticRegression(random_state=0, max_iter=1000)
         lr = lore.fit(X_train, y_train)

In [25]: y_pred = lr.predict(X_test)
```

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Once the model is trained, it's ready to make predictions. We can use the `predict` method on the model and pass `x_test` as a parameter to get the output as `y_pred`.