# AdaBoost in sklearn

Building an AdaBoost model in sklearn is no different than building any other model. You can use scikit-learn's [**AdaBoostClassifier**](http://scikit-learn.org/stable/modules/generated/sklearn.ensemble.AdaBoostClassifier.html) class. This class provides the functions to define and fit the model to your data.

>>> **from** sklearn.ensemble **import** AdaBoostClassifier

>>> model = AdaBoostClassifier()

>>> model.fit(x\_train, y\_train)

>>> model.predict(x\_test)

In the example above, the model variable is a decision tree model that has been fitted to the data x\_train and y\_train. The functions fit and predict work exactly as before.

### Hyperparameters

When we define the model, we can specify the hyperparameters. In practice, the most common ones are

* base\_estimator: The model utilized for the weak learners (**Warning:** Don't forget to import the model that you decide to use for the weak learner).
* n\_estimators: The maximum number of weak learners used.

For example, here we define a model which uses decision trees of max\_depth 2 as the weak learners, and it allows a maximum of 4 of them.

>>> **from** sklearn.tree **import** DecisionTreeClassifier

>>> model = AdaBoostClassifier(base\_estimator = DecisionTreeClassifier(max\_depth=2), n\_estimators = 4)