**Basics**

Define X and Y – can be numpy arrays

From sklearn import the algorithm one would want to use

Define a classifier

Fit the data

Run the classifier

Predict new point using the classifier

**Naïve Bayes**

import numpy as np

X = np.array([[-1,-1], [-2,-1], [-3,-2],[1,1],[2,1],[3,2]])

Y = np.array([1,1,1,2,2,2])

from sklearn.naive\_bayes import GaussianNB

clf = GaussianNB()

clf.fit(X,Y)

GaussianNB()

print(clf.predict([[-0.8,-1]]))

**Accuracy of prediction**

from sklearn.metrics import accuracy\_score

>>> y\_pred = [0, 2, 1, 3]

>>> y\_true = [0, 1, 2, 3]

>>> accuracy\_score(y\_true, y\_pred)

0.5

>>> accuracy\_score(y\_true, y\_pred, normalize=False)

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