Створення даних

from numpy import unique

from numpy import where

from matplotlib import pyplot

from sklearn.datasets import make\_classification

from sklearn.cluster import KMeans

# initialize the data set we'll work with

training\_data, \_ = make\_classification(

n\_samples=1000,

n\_features=2,

n\_informative=2,

n\_redundant=0,

n\_clusters\_per\_class=1,

random\_state=4

)

# define the model

kmeans\_model = KMeans(n\_clusters=2)

# assign each data point to a cluster

dbscan\_result = dbscan\_model.fit\_predict(training\_data)

# get all of the unique clusters

dbscan\_clusters = unique(dbscan\_result)

# plot the DBSCAN clusters

for dbscan\_cluster in dbscan\_clusters:

# get data points that fall in this cluster

index = where(dbscan\_result == dbscan\_clusters)

# make the plot

pyplot.scatter(training\_data[index, 0], training\_data[index, 1])

# show the DBSCAN plot

pyplot.show()