**PRACTICAL: 8**

**AIM: : Write an application to implement Clustering algorithm.**

Code:

# synthetic classification dataset

from numpy import where

from sklearn.datasets import make\_classification

from matplotlib import pyplot

# define dataset

x,y = make\_classification(n\_samples=1000, n\_features=2, n\_informative=2, n\_redundant=0, n\_clusters\_per\_class=1, random\_state=4)

# create scatter plot for samples from each class

for class\_value in range(2):

    #get row indexes for samples with this class

    row\_ix = where(y == class\_value)

    # create scatter of these samples

    pyplot.scatter(x[row\_ix, 0], x[row\_ix, 1])

# show the plot

pyplot.show()