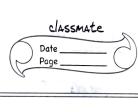
MROGRAM imposit numpy as up. imposit pandas as Ad. from matplot import puplot as plt from 8 Klearn datasets import make-blobs from skleam clusteringove Kmeans X, y = make_blobs (n-somples = 300, untrest, cluster-sta = 0.60 , randomaistation) plt. Scatter CxC:, 02,XC:, 13) pt title ('unerated Darla') plt·Xlabel ('Kahore 1') Plb. ylabel ('Flature 2') plt-show () NICI · CJ for i invange (1,11): Kneans = Kbleans (n-Clusters =), init = Kmeans +t' max-liv=300, n-init=10, Kneare. fit(1) randonstate :0) NCS.append (Knewns.inertia) ple.plot(range(1,11)www) plt-little ('Elbous Mellood') plt. xlabel ('Number of clusters) pit-ylabel ('WCSS') p(t. show() Kneans = KMeans (n-clusters=4, init = 1/4-meanst t', maritiv=300) n-inet=10, randomshill pred-y. Knews-jib predut(X) put scatter (x[:0], x[:,1], c=pred-y, seso, conop="winds") centers: knowns. Unster-culousplt-scottar (centrers C.p.), centers (.,1), (-tred), 5-200) alpha= 0-15, mosive) plt-fell ('KMeens') plt- xlabel (realized) pl 6. ylahel Reakon Es plb: show ().



EXPINO: 4

AIM: Implement elustering reconsques using

K-MEANS in python

PROCEDURE.

2. Visualise Scatter: Scatter pot data prints

3. Detunine optimal electors (Elpow Mermod).
- For each number of cluster perform Kreans

- Plot wess against number of dusters.

21. Apply Known Chatring: Run Knowns
using the identified optimal number
of clusters

5. plot final elusters: Scalter plat the elate point

Thus the Kneary clisksing

per formed in python

OUTPUT

