- Impletation of Clustering Techniques K-means Ex-NO.12 technique using python language. COURCE LODE: import numpy as up import pondas as pd from malphollib, import pyplot as plt X, y= make-blobs (n\_samples = 300, centres = 4, Cluste r\_std = 0.60, romdom\_state=0) plt. scatter (Xl':,0], X[:,1]) for i in range (1,11): kmeans = Kmeans (n-clusters = i, init="komeans +i', max\_iter=300, n\_initl=10, random\_state=0) kmeans fit (X) plt.plot(romge[1,11), wess) plt. title ("Ellow Method") plt. xlable("Number of clusters")
plt. ylabel("WCSS") plt. Show ()

DUTPUT : Ellow method 2500+ 2000 matty give augini. 1500 -(000) 300) 302 400 + 20246810 in matphilit import puplet as plt 1.1. mals. 6661 (n. 80 mples: 300, centres=4, Constate 8. std. c. to, 20 motorn state - o) it suller (XI:10), XI:10) [] cosp! (1,1) sympt (1,11): tomens I means (nedunters: i, init="lemen est max iteresco, n-initle 10, a societoria state-co force has fifted ph. ph. 1 (normace (1911) , weess) "It, 1970 ("Ethions, Method") RESULT: thus the program is successfully enewted & output is verified.