

Name	Score
Carreon, Ma. Addine Anne T	
Course/Section: BSDS/ A35	Date: 04-24-2023

DS103
Fundamentals of Data Science
Exercise on k-Means Clustering

K=4

Dataset	$C_1=10$	$C_2=12$	$C_3=20$	$C_4=25$	Assigned Cluster
2	8	10	18	23	I
4	6	8	16	21	I
10	0	2	10	15	I
12	2	0	8	13	II
3	7	9	17	22	I
20	10	8	0	5	III
30	20	18	10	5	IV
11	1	1	9	14	I
25	15	13	5	0	IV

Dataset	$C_1=6$	$C_2=12$	$C_3=20$	$C_4=27.5$	Assigned Cluster
2	4	10	18	25.5	I
4	2	8	16	23.5	I
10	4	2	10	17.5	II
12	6	0	8	15.5	II
3	3	9	17	24.5	I
20	14	8	0	7.5	III
30	24	18	10	2.5	IV
11	5	1	9	16.5	II
25	19	13	5	2.5	IV

Dataset	$C_1=3$	$C_2=11$	$C_3=20$	$C_4=27.5$	Assigned Cluster
2	1	9	18	25.5	I
4	1	7	16	23.5	I
10	7	1	10	17.5	II
12	9	1	8	15.5	II
3	0	8	17	24.5	I
20	17	9	0	7.5	III
30	27	19	10	2.5	IV

11	8	0	9	16.5	II
25	22	14	5	2.5	IV

Iteration	I	C ₁	II	C ₂	III	C ₃	IV	C ₄
0		10		12		20		25
1	2, 4, 10, 3, 11	6	12	12	20	20	25, 30	27.5
2	2, 4, 3	3	10, 12, 11	11	20	20	30, 25	27.5
3	2, 4, 3	3	10, 12, 11	11	20	20	30, 25	27.5