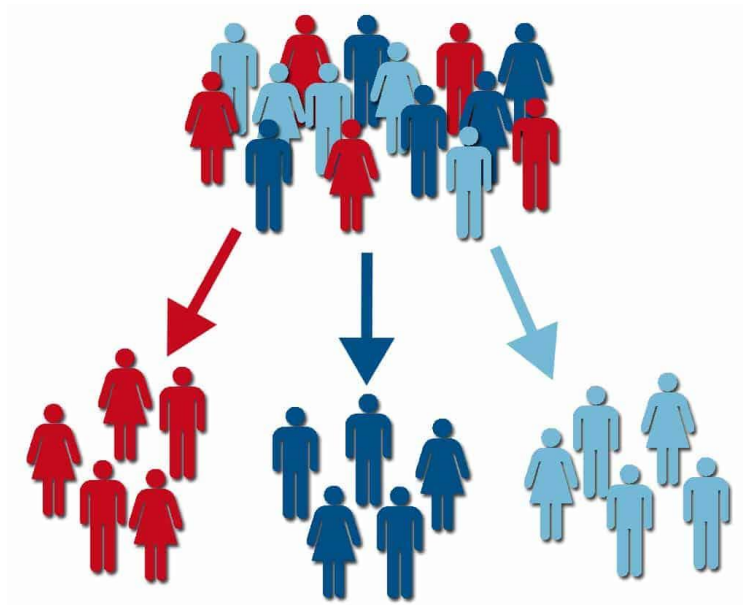


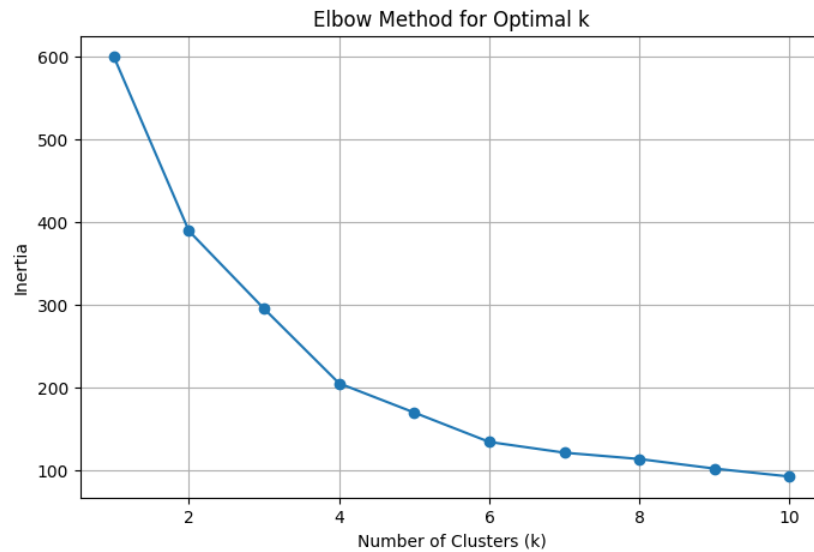
Nama Dosen : Teguh Iman Hermanto, M.Kom
 Mata Kuliah : Machine Learning 1
 Pembahasan : Komparasi Algoritma Clustering
 Pokok Pemb : - Membangun Model K-Means
 - Membangun Model Hierarchical Clustering
 - Membangun Model DBSCAN

1. Load dataset pada file Notebook

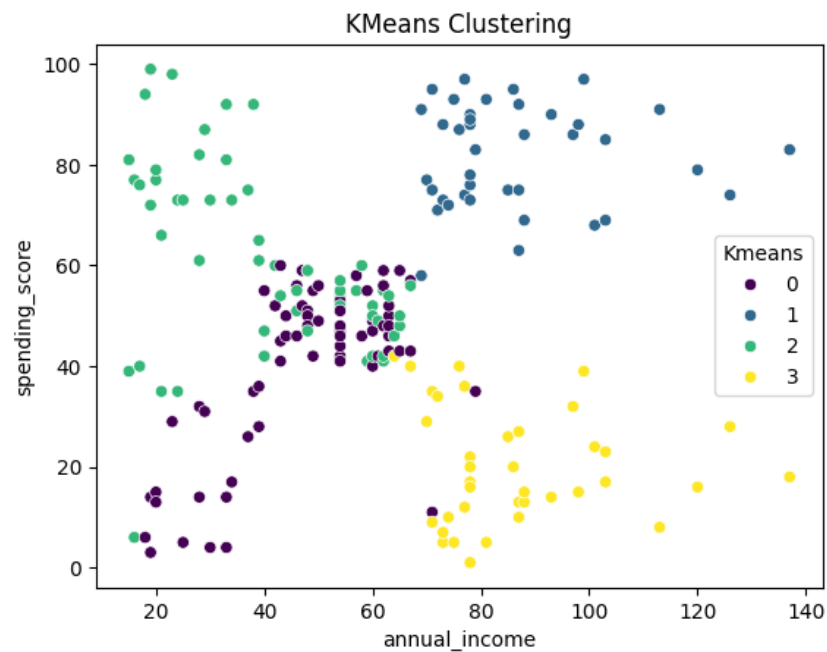


	customer_id	gender	age	annual_income	spending_score
0	1	Male	19	15	39
1	2	Male	21	15	81
2	3	Female	20	16	6
3	4	Female	23	16	77
4	5	Female	31	17	40

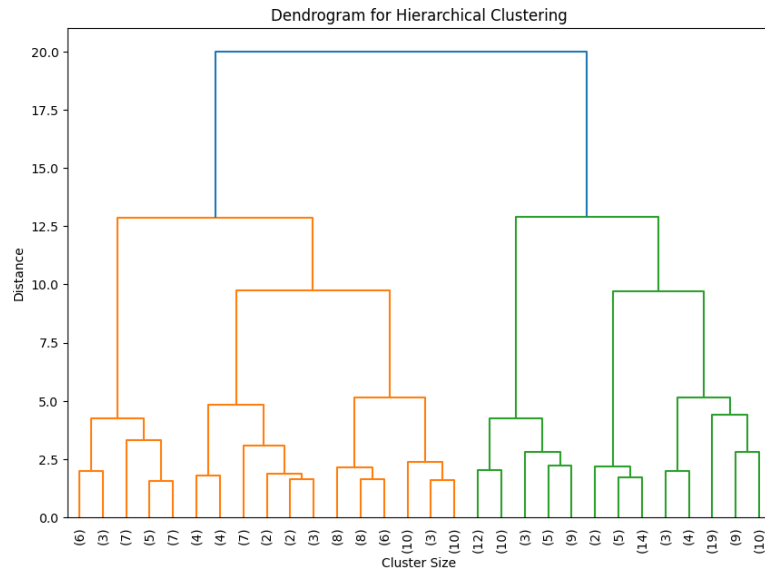
2. Membangun Model K-Means



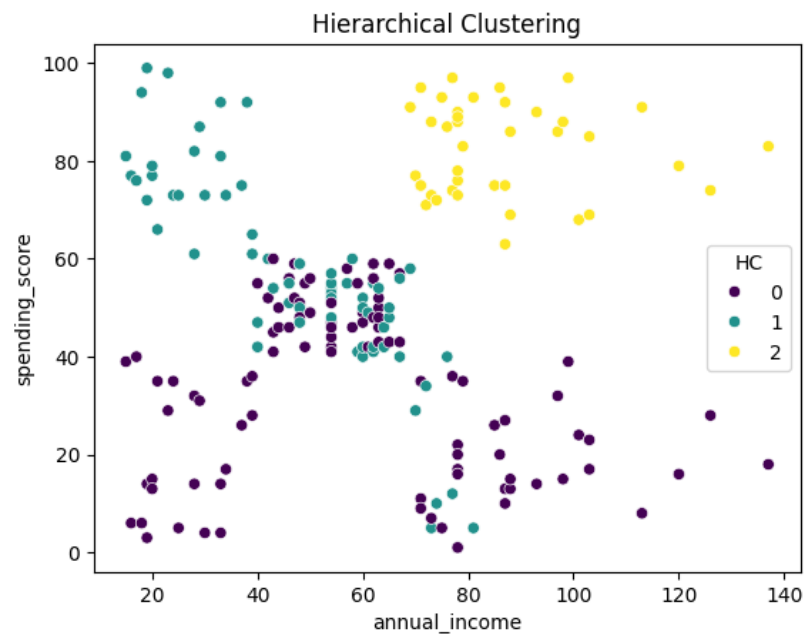
	customer_id	gender	age	annual_income	spending_score	Kmeans
0	1	Male	19	15	39	2
1	2	Male	21	15	81	2
2	3	Female	20	16	6	2
3	4	Female	23	16	77	2
4	5	Female	31	17	40	2



3. Membangun model Hierarchical Clustering

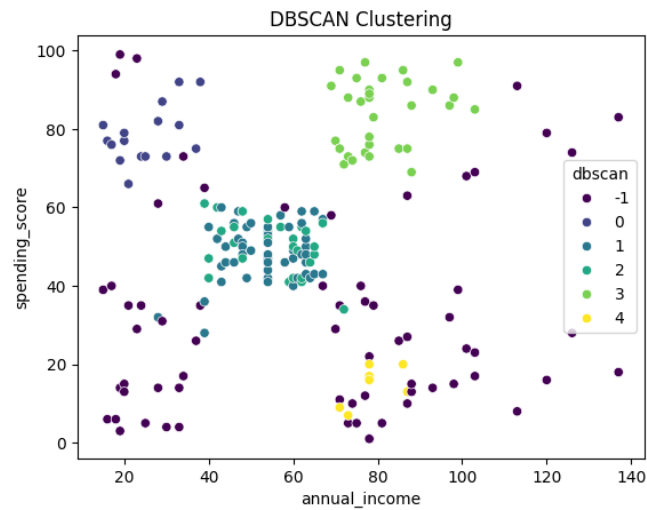


	customer_id	gender	age	annual_income	spending_score	Kmeans	HC
0	1	Male	19	15	39	2	0
1	2	Male	21	15	81	2	1
2	3	Female	20	16	6	2	0
3	4	Female	23	16	77	2	1
4	5	Female	31	17	40	2	0



4. Membangun Model DBSCAN

	customer_id	gender	age	annual_income	spending_score	Kmeans	HC	dbscan
0	1	Male	19	15	39	2	0	-1
1	2	Male	21	15	81	2	1	0
2	3	Female	20	16	6	2	0	-1
3	4	Female	23	16	77	2	1	0
4	5	Female	31	17	40	2	0	-1



	customer_id	gender	age	annual_income	spending_score	Kmeans	HC	dbscan	anomaly
0	1	Male	19	15	39	2	0	-1	True
1	2	Male	21	15	81	2	1	0	False
2	3	Female	20	16	6	2	0	-1	True
3	4	Female	23	16	77	2	1	0	False
4	5	Female	31	17	40	2	0	-1	True

