Nama : Mochammad Itmamul Wafa

NIM : L200170184

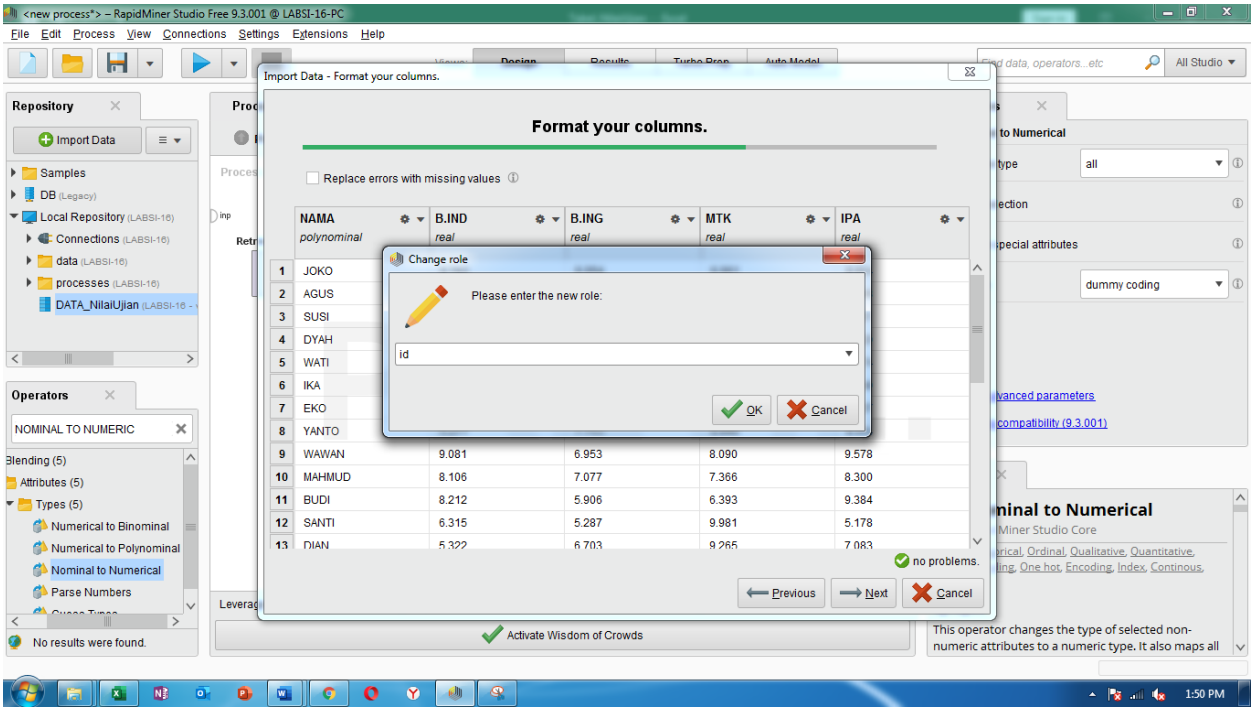
Kelas : F

Laporan tugas praktikum DWDM modul 10

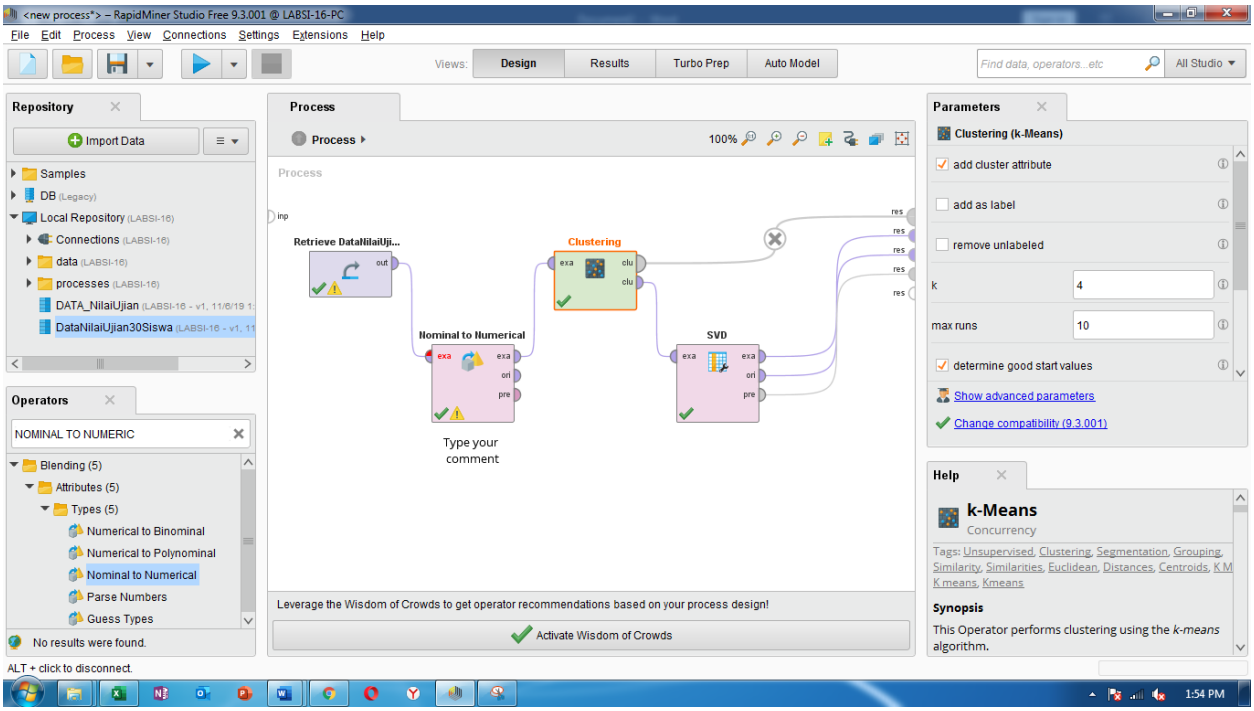
1. Data Nilai Ujian 30 siswa

	A	B	C	D	E	F
1	No_SISW	NAMA	B.IND	B.ING	MTK	IPA
2	S-101	JOKO	9.7831361	6.0537	6.0608	8.8036
3	S-102	AGUS	7.8544101	9.1685	6.5338	8.4484
4	S-103	SUSI	6.7189883	8.432	7.4633	8.4608
5	S-104	DYAH	5.8546659	5.0046	9.8041	7.6205
6	S-105	WATI	9.1039815	5.09	7.6355	8.5737
7	S-106	IKA	6.3713563	8.2443	7.2394	8.1395
8	S-107	EKO	9.4616725	8.162	5.4495	5.8569
9	S-108	YANTO	5.2766297	7.7535	8.8402	8.0537
10	S-109	WAWAN	9.0811413	6.9533	8.0901	9.5775
11	S-110	MAHMUD	8.1062984	7.0766	7.3662	8.3003
12	S-111	BUDI	8.2118035	5.906	6.3934	9.3839
13	S-112	SANTI	6.3150599	5.2873	9.9812	5.1777
14	S-113	DIAN	5.3222986	6.7032	9.2646	7.0832
15	S-114	DANI	8.310581	5.7158	5.1627	5.2871
16	S-115	AHMAD	7.6809138	6.1878	6.7141	7.9956
17	S-116	BAYU	5.7166853	9.6379	7.7319	6.5634
18	S-117	RISA	8.0829197	5.9834	9.2184	9.0038
19	S-118	RANI	7.4366308	6.6871	7.4634	8.001
20	S-119	YANI	9.393156	7.4265	6.4206	6.3943
21	S-120	RATIH	5.6103762	9.1785	7.7701	8.5189
22	S-121	INDAH	6.7975579	8.4333	9.8245	8.8383
23	S-122	JONO	9.1006578	6.2719	9.1409	8.2709
24	S-123	SARAH	7.2522646	6.4935	9.3768	9.1546
25	S-124	RAMA	8.5852368	7.7787	5.6178	7.7852
26	S-125	BAMBANG	9.1595593	7.2224	7.0145	7.5595
27	S-126	HADI	5.9226747	6.5411	7.4777	7.2569
28	S-127	NANA	6.7670971	7.1619	7.4573	7.6921
29	S-128	FEBRI	5.2499587	6.3821	7.2318	8.1545
30	S-129	DENI	9.863322	9.6554	9.6861	6.5187
31	S-130	TONI	7.6968657	6.9555	9.2278	7.5086
32						

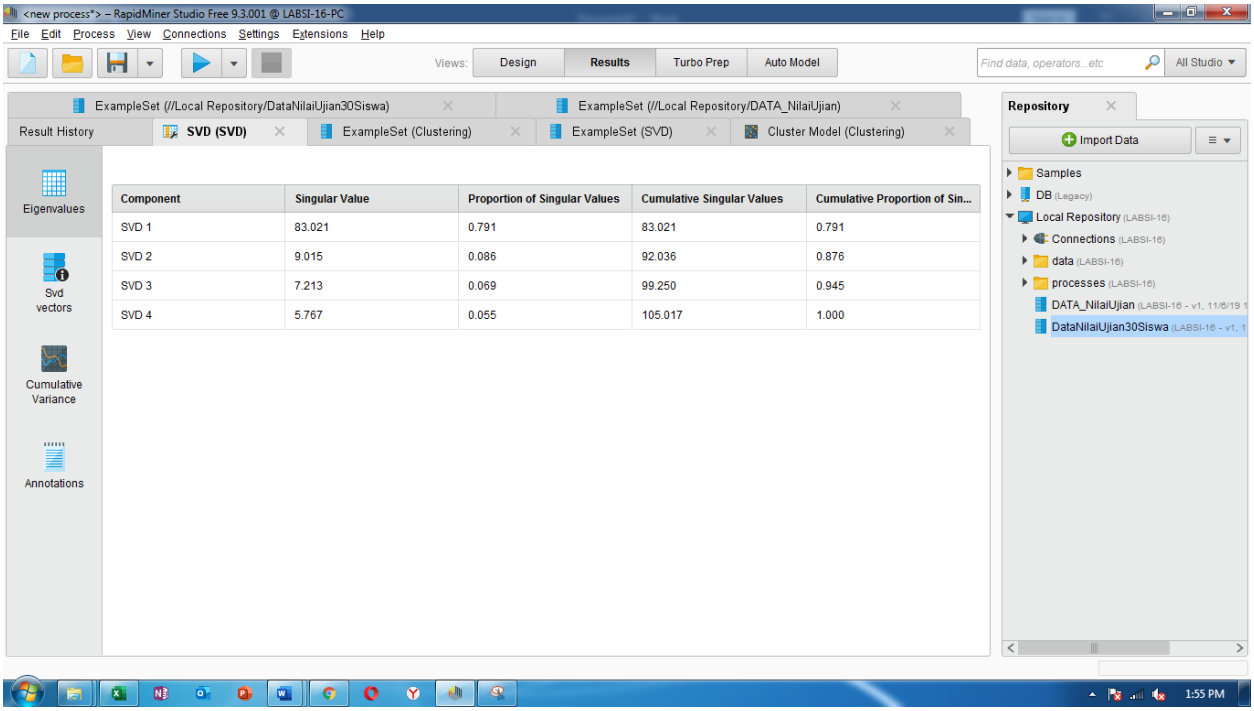
2. Buka aplikasi rapid manner lalu masukan data yang tadi dan blok antaran kolom NAMA sampai kolom B.ING. selanjutnya ubaghlah role pada Nama. Kemudian save dengan nama DATA_NilaiUjian.



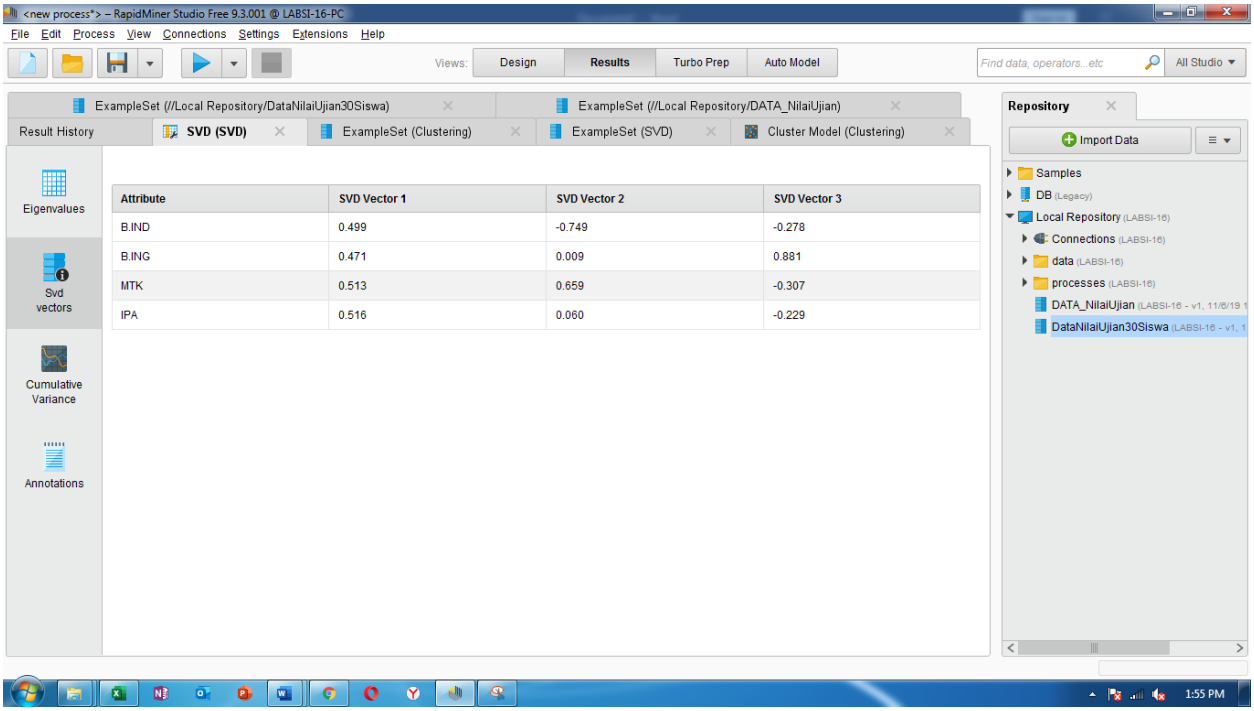
3. Tambahakan operator k-mens, SVD, sama Data_NilaiUjian jika error bias tambahkan operator nominal to numeric. Lalu ubahlah nilai K pada operator k-mens.



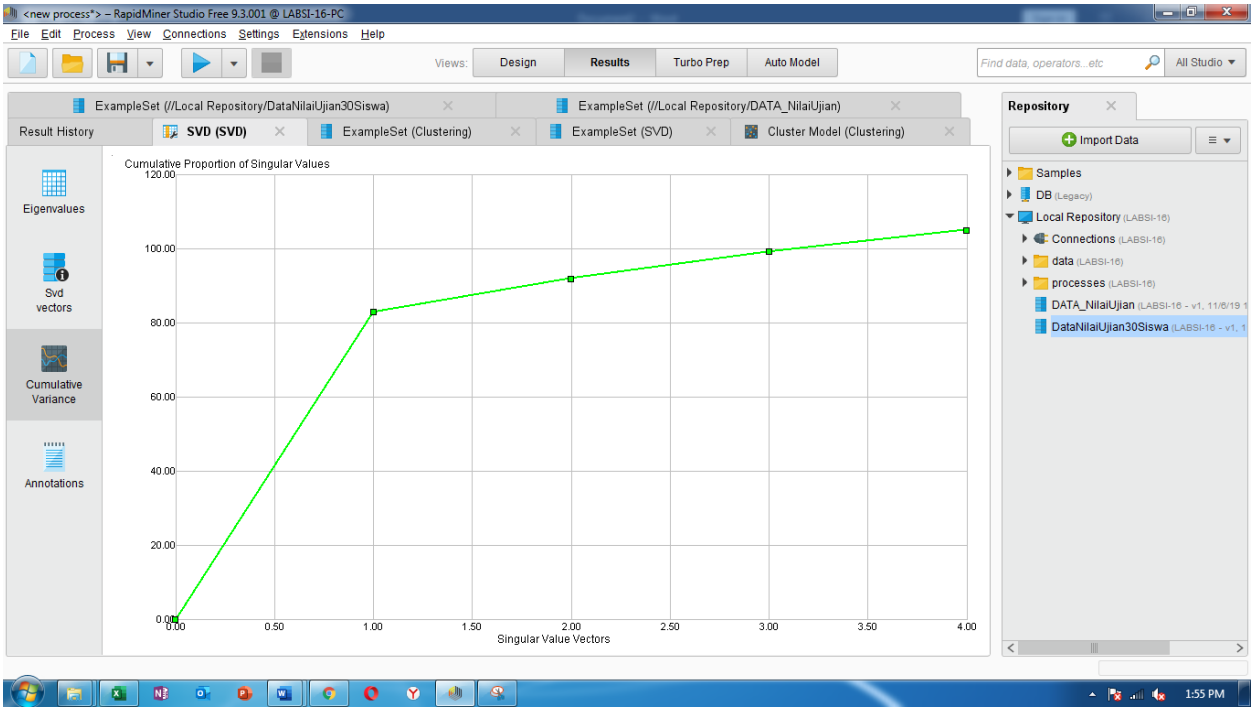
4. Hasil dari proses dengan algoritma K-Means
    a. SVD
        i. Nilai Eigenvalue



ii. Nilai svd vectors

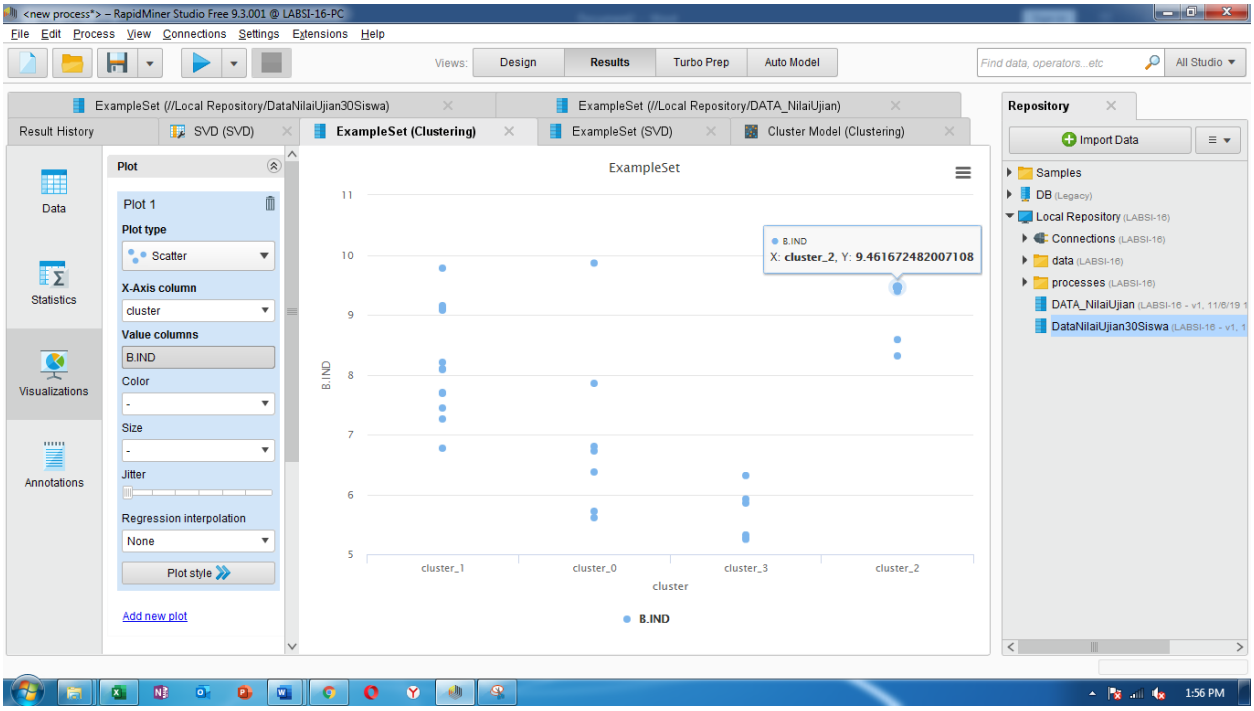


iii. Nilai cumulative variance

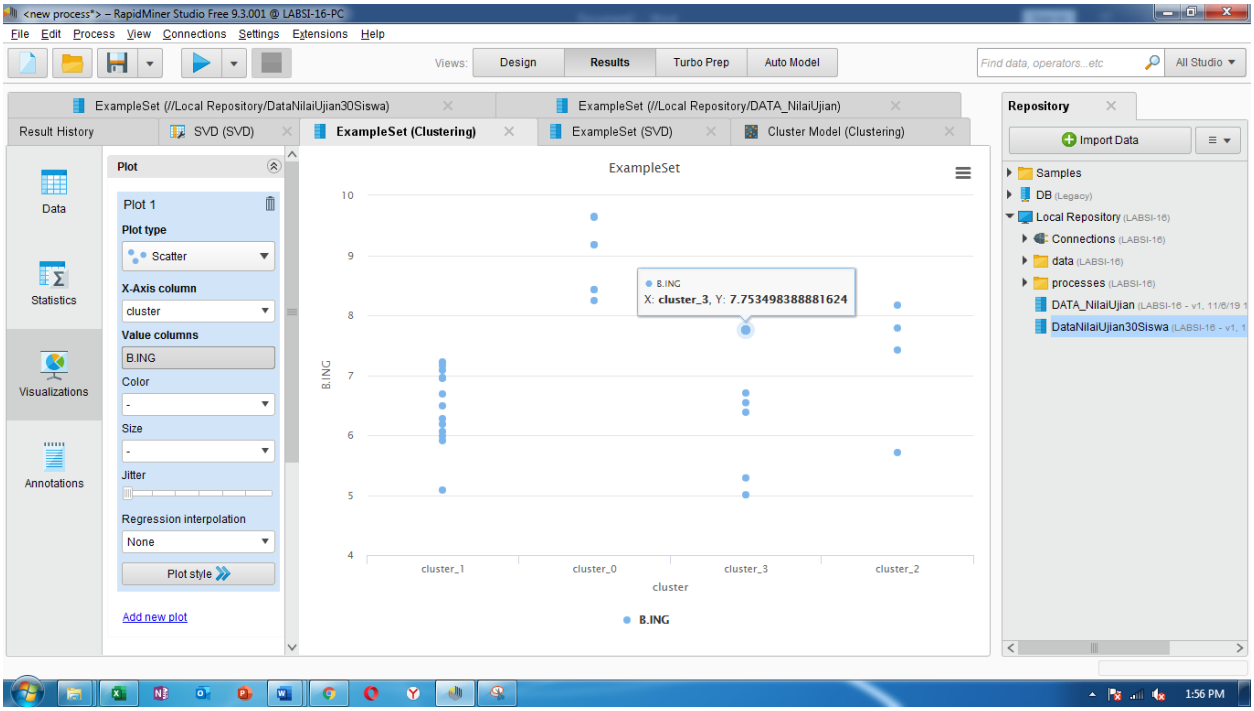


b. ExampleSet (K-Means)

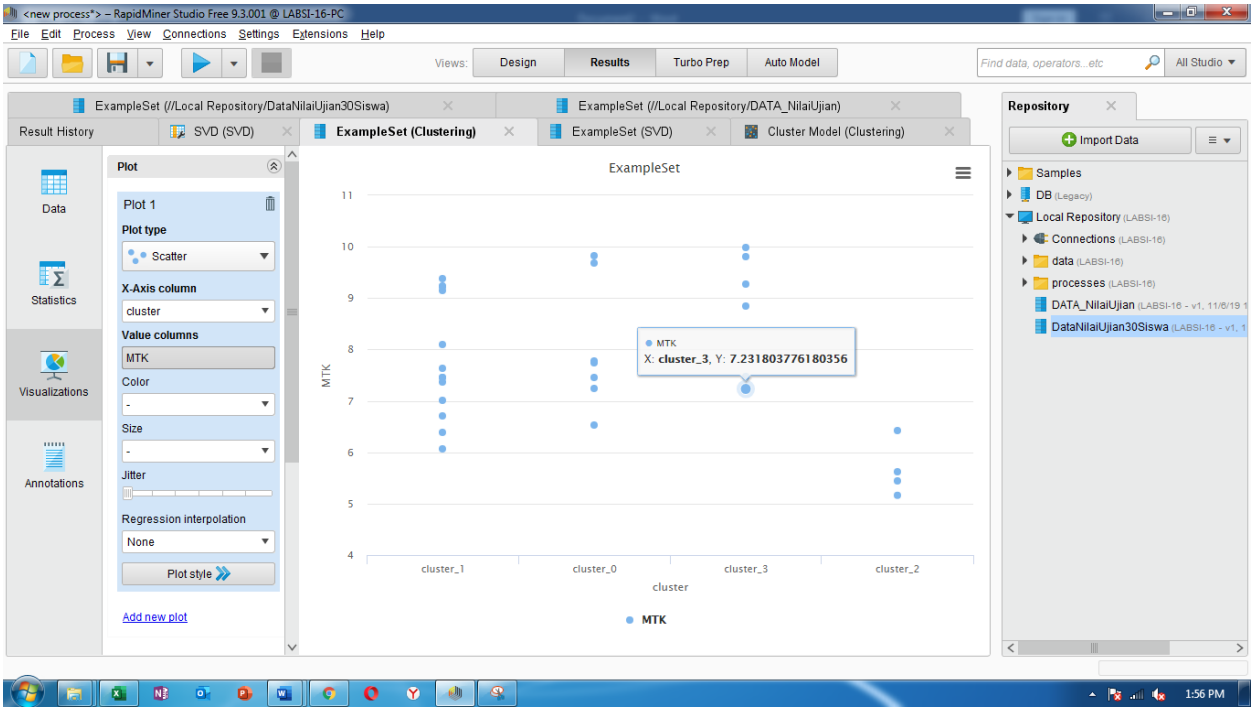
i. Kelompok siswa bidang B.IND



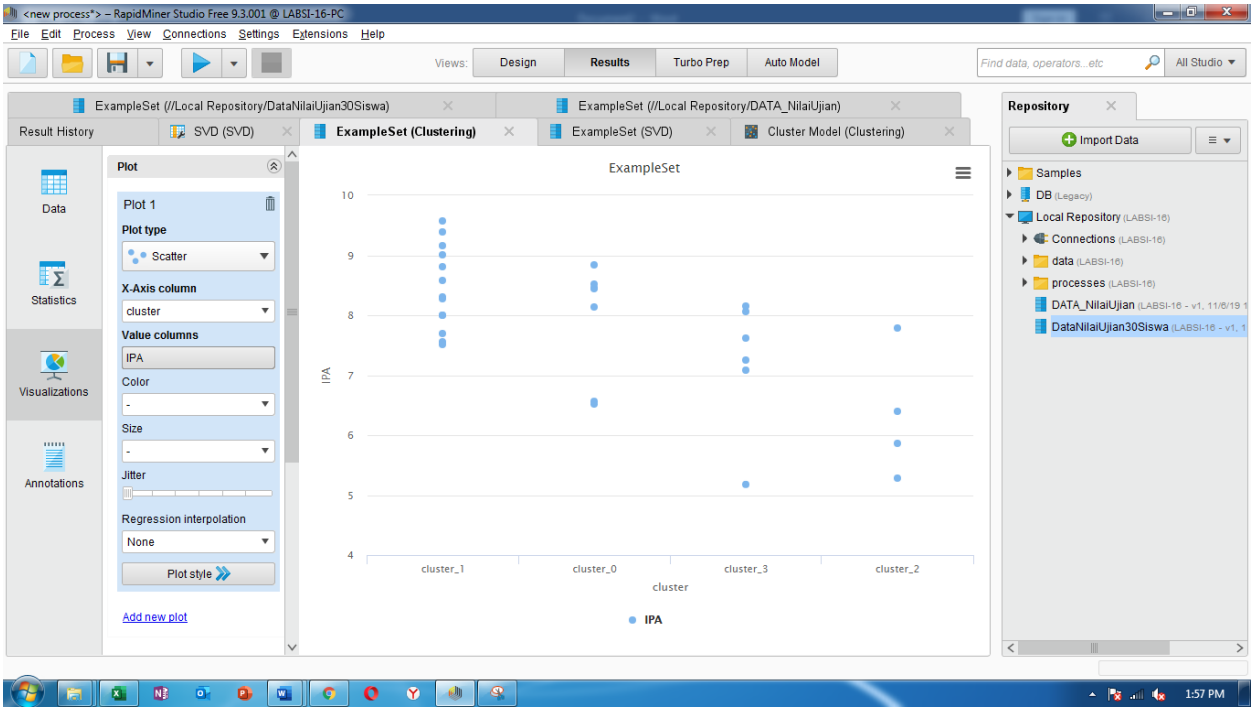
ii. Kelompok siswa bidang B.ING



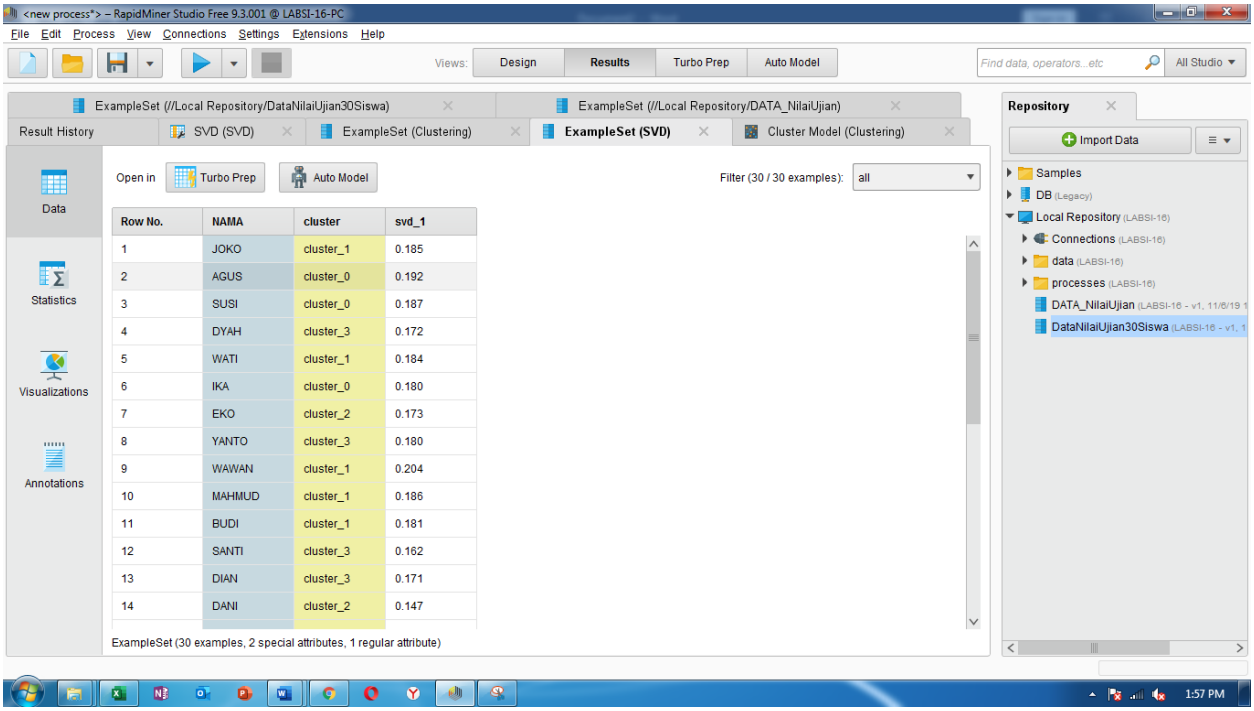
iii. Kelompok siswa bidang MTK

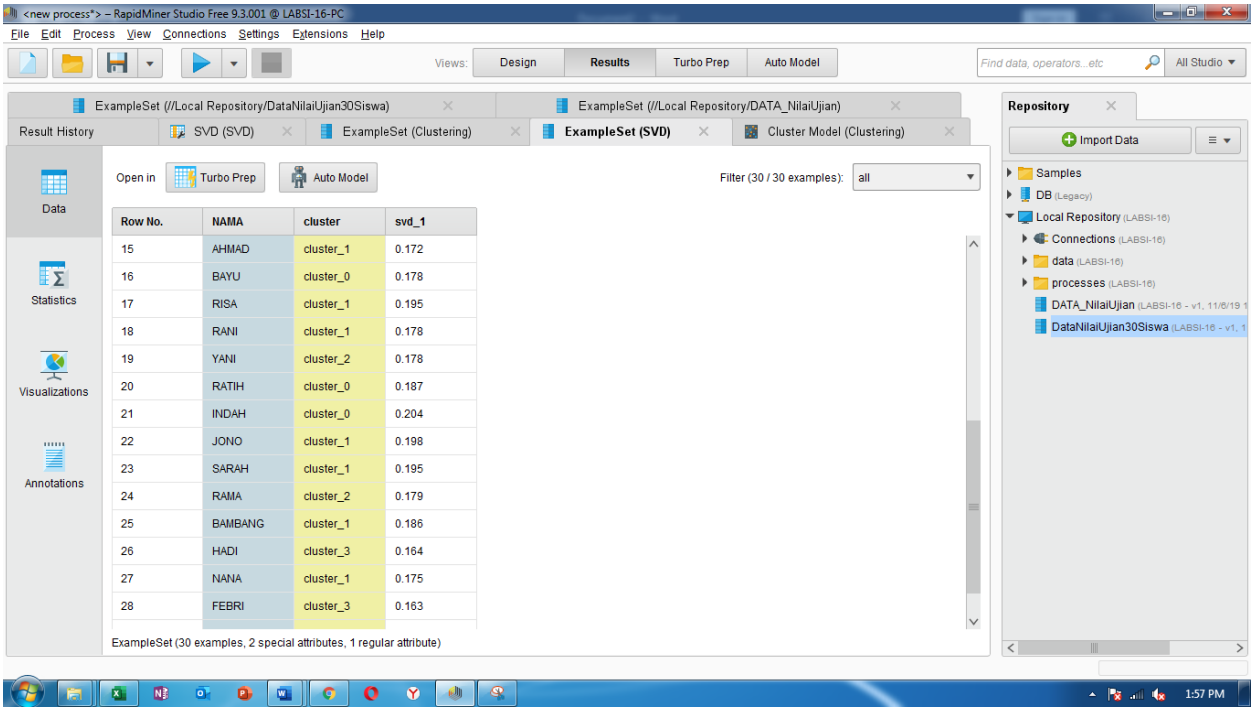


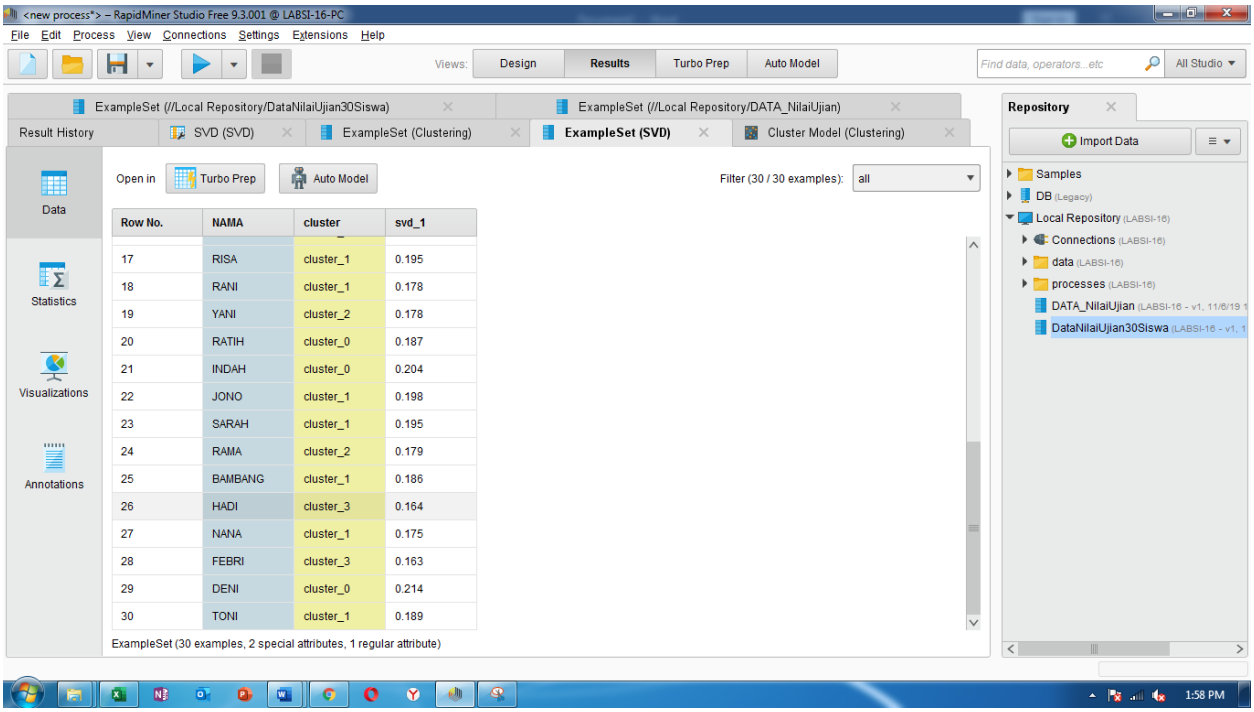
iv. Kelompok siswa bidang IPA



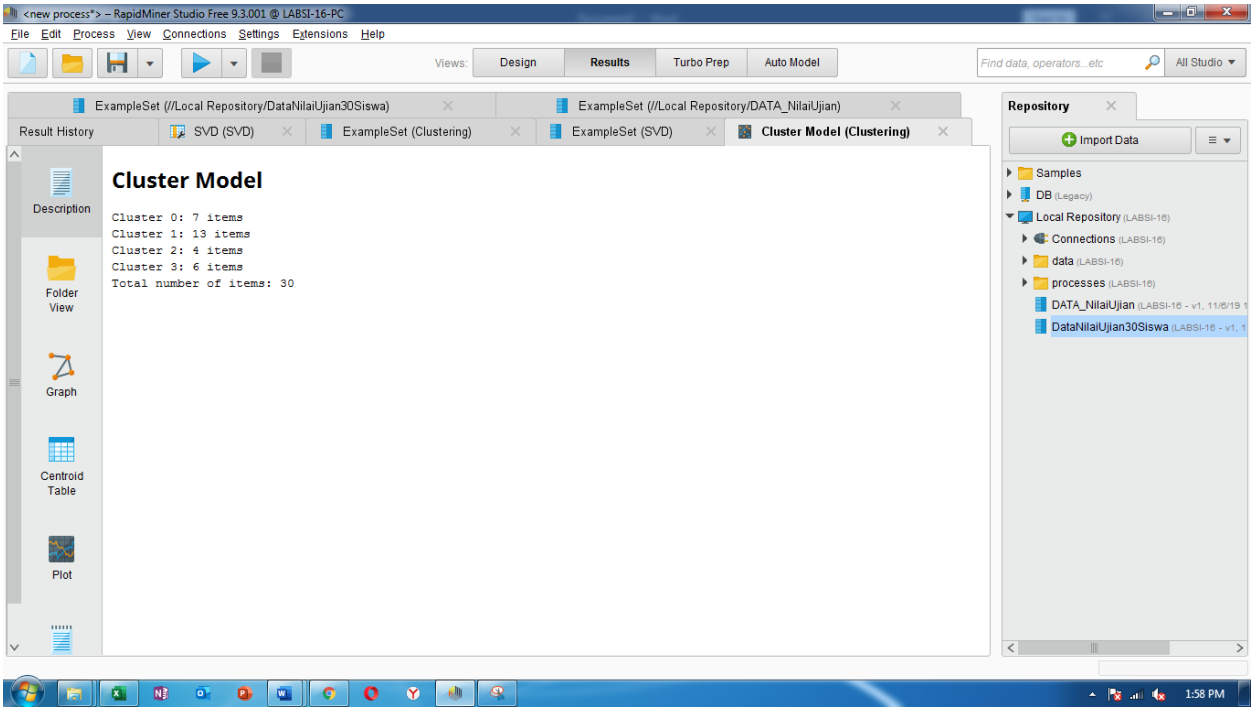
c. ExampleSet(SVD)



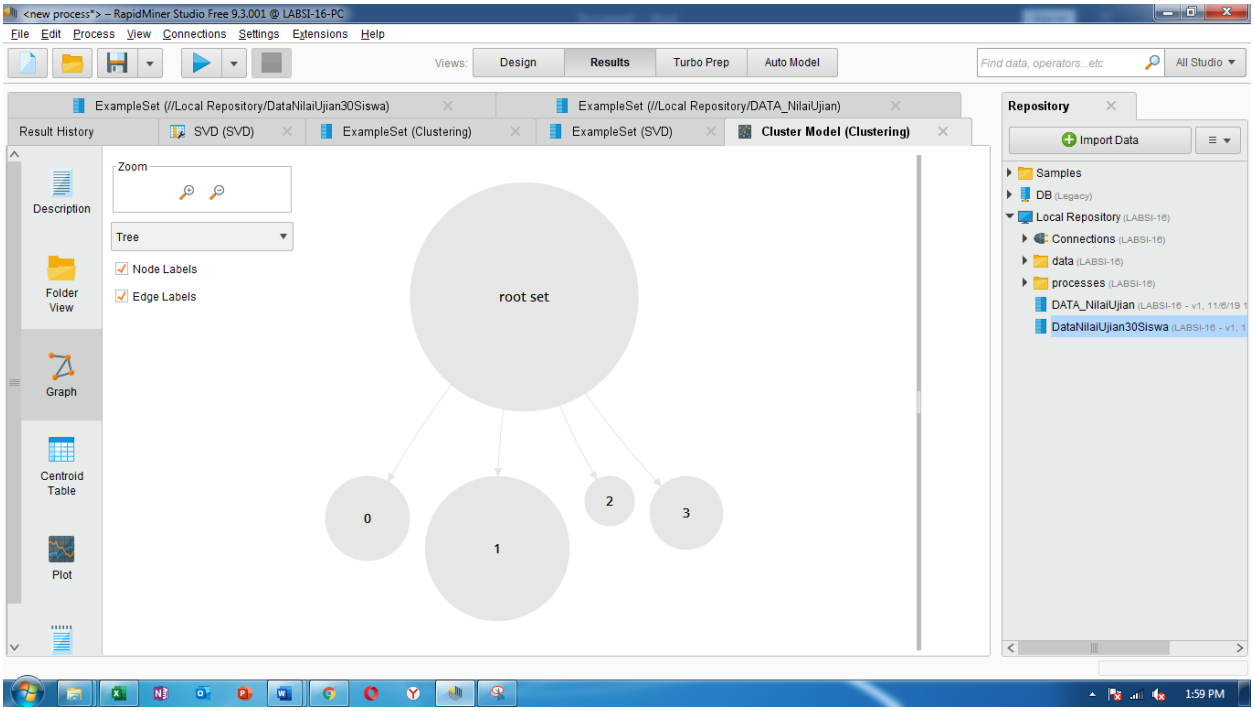




d. Cluster Model (clustering)
    i. Description



ii. Graph



e. Interpretasi hasil algoritma K_Means

NO_SISWA	NAMA	CLUSTER	svd_1
2	AGUS	cluster_0	0.192081
3	SUSI	cluster_0	0.186906

6	IKA	cluster_0	0.180372
16	BAYU	cluster_0	0.17759
20	RATIH	cluster_0	0.18674
21	INDAH	cluster_0	0.204323
29	DENI	cluster_0	0.21439
1	JOKO	cluster_1	0.185282
5	WATI	cluster_1	0.184037
9	WAWAN	cluster_1	0.20352
10	MAHMUD	cluster_1	0.18595
11	BUDI	cluster_1	0.180669
15	AHMAD	cluster_1	0.172431
17	RISA	cluster_1	0.195428
18	RANI	cluster_1	0.17846
22	JONO	cluster_1	0.198141
23	SARAH	cluster_1	0.19525
25	BAMBANG	cluster_1	0.186325
27	NANA	cluster_1	0.175173
30	TONI	cluster_1	0.189387
7	EKO	cluster_2	0.173212
14	DANI	cluster_2	0.147108
19	YANI	cluster_2	0.17797
24	RAMA	cluster_2	0.178803
4	DYAH	cluster_3	0.171513
8	YANTO	cluster_3	0.180372
12	SANTI	cluster_3	0.161789
13	DIAN	cluster_3	0.171277
26	HADI	cluster_3	0.164001
28	FEBRI	cluster_3	0.16312