Nama : Palistya Nesty Harijanti

NIM : L200170083

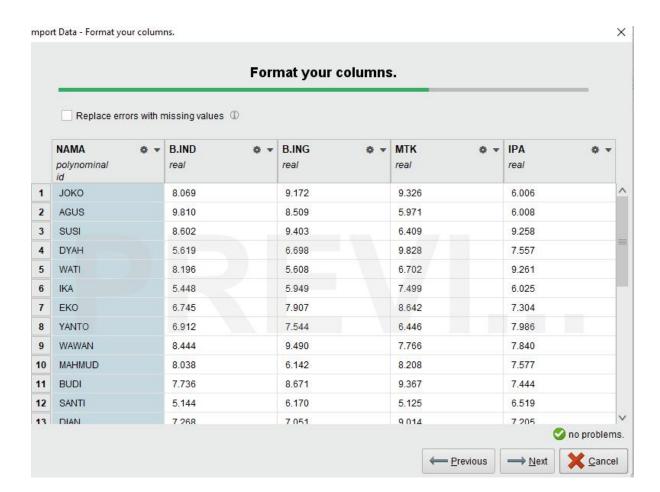
# TUGAS

# 1. membuat table Data Nilai ujian 30 siswa

NO_SISWA	NAMA	B.IND	B.ING	MTK	IPA
S_101	JOKO	9,83	5,16	6,75	7,24
S_102	AGUS	7,15	8,54	6,37	8,62
S_103	SUSI	8,33	9,83	9,01	8,21
S_104	DYAH	8,88	7,72	7,48	5,25
S_105	WATI	6,34	8,90	9,34	6,43
S_106	IKA	7,92	8,22	7,77	9,19
S_107	EKO	9,80	7,47	9,08	5,48
S_108	YANTO	7,33	5,71	7,65	7,29
S_109	WAWAN	5,25	8,68	8,76	6,74
S_110	MAHMUD	6,89	5,89	9,96	8,50
S_111	BUDI	8,87	8,26	9,76	8,99
S_112	SANTI	8,83	5,42	9,35	8,33
S_113	DIAN	6,49	5,45	7,36	9,85
S_114	DANI	7,80	9,24	7,64	6,11
S_115	AHMAD	7,53	5,52	7,48	8,54
S_116	BAYU	9,41	9,99	7,91	6,36
S_117	RISA	8,98	8,63	9,51	6,07
S_118	RANI	6,00	8,82	9,07	7,91
S_119	YANI	7,62	8,70	5,68	6,37
S_120	RATIH	6,19	7,49	7,13	5,24
S_121	INDAH	8,04	6,86	6,74	5,74
S_122	JONO	7,23	9,69	7,40	9,15
S_123	SARAH	6,99	5,92	8,32	6,02
S_124	RAMA	5,36	6,52	7,73	9,92

8	S_107	EKO	9,80	7,47	9,08	5,48
9	S_108	YANTO	7,33	5,71	7,65	7,29
10	S_109	WAWAN	5,25	8,68	8,76	6,74
11	S_110	MAHMUD	6,89	5,89	9,96	8,50
12	S_111	BUDI	8,87	8,26	9,76	8,99
13	S_112	SANTI	8,83	5,42	9,35	8,33
14	S_113	DIAN	6,49	5,45	7,36	9,85
15	S_114	DANI	7,80	9,24	7,64	6,11
16	S_115	AHMAD	7,53	5,52	7,48	8,54
17	S_116	BAYU	9,41	9,99	7,91	6,36
18	S_117	RISA	8,98	8,63	9,51	6,07
19	S_118	RANI	6,00	8,82	9,07	7,91
20	S_119	YANI	7,62	8,70	5,68	6,37
21	S_120	RATIH	6,19	7,49	7,13	5,24
22	S_121	INDAH	8,04	6,86	6,74	5,74
23	S_122	JONO	7,23	9,69	7,40	9,15
24	S_123	SARAH	6,99	5,92	8,32	6,02
25	S_124	RAMA	5,36	6,52	7,73	9,92
26	S_125	BAMBANG	9,04	7,85	9,40	7,52
27	S_126	HADI	6,18	8,03	9,85	9,29
28	S_127	NANA	7,37	6,17	7,97	9,75
29	S_128	FEBRI	8,43	8,73	9,27	5,94
30	S_129	DENI	6,64	7,04	8,60	8,77
31	S 130	TONI	6,76	7,41	5,76	9,85

2. import data ke rapid miner.



	NAMA ♣ ▼ polynominal id	B.IND   real	B.ING • •	MTK ♣ ▼	IPA   real
11	BUDI	7.736	8.671	9.367	7.444
12	SANTI	5.144	6.170	5.125	6.519
13	DIAN	7.268	7.051	9.014	7.205
14	DANI	9.713	8.568	9.556	7.519
15	AHMAD	7.272	7.127	9.235	5.901
16	BAYU	9.329	7.103	6.515	9.815
17	RISA	8.153	7.100	6.944	9.377
18	RANI	8.738	7.510	9.480	5.283
19	YANI	7.627	9.513	9.009	9.249
20	RATIH	9.298	7.837	7.032	7.433
21	INDAH	7.441	7.737	7.633	6.473
22	JONO	5.378	9.710	9.955	6.616

	NAMA	B.IND   real	B.ING    real   real	MTK    real	IPA ❖ ▼
18	RANI	8.738	7.510	9.480	5.283
19	YANI	7.627	9.513	9.009	9.249
20	RATIH	9.298	7.837	7.032	7.433
21	INDAH	7.441	7.737	7.633	6.473
22	JONO	5.378	9.710	9.955	6.616
23	SARAH	9.351	7.632	9.889	8.594
24	RAMA	6.287	5.718	8.925	5.443
25	BAMBANG	8.692	6.366	6.494	5.608
26	HADI	8.697	9.233	8.457	9.572
27	NANA	5.716	7.498	8.760	9.800
28	FEBRI	5.491	8.904	7.519	8.144
29	DENI	7.990	8.652	5.651	5.987
30	TONI	8.194	6.335	5.298	7.201
,,,	TOW	0.137	0.000	3.230	ono problem

3.

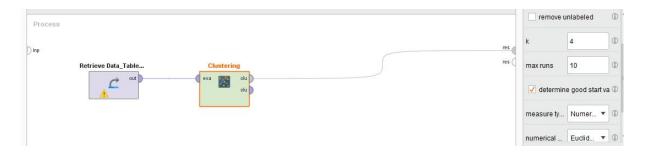
Row No.	NAMA	B.IND	B.ING	MTK	IPA
1	ЈОКО	8.069	9.172	9.326	6.006
2	AGUS	9.810	8.509	5.971	6.008
3	SUSI	8.602	9.403	6.409	9.258
4	DYAH	5.619	6.698	9.828	7.557
5	WATI	8.196	5.608	6.702	9.261
6	IKA	5.448	5.949	7.499	6.025
7	EKO	6.745	7.907	8.642	7.304
8	YANTO	6.912	7.544	6.446	7.986
9	WAWAN	8.444	9.490	7.766	7.840
10	MAHMUD	8.038	6.142	8.208	7.577
11	BUDI	7.736	8.671	9.367	7.444
12	SANTI	5.144	6.170	5.125	6.519
13	DIAN	7.268	7.051	9.014	7.205

Row No.	NAMA	B.IND	B.ING	MTK	IPA
13	DIAN	1.200	7.051	3.014	1.203
14	DANI	9.713	8.568	9.556	7.519
15	AHMAD	7.272	7.127	9.235	5.901
16	BAYU	9.329	7.103	6.515	9.815
17	RISA	8.153	7.100	6.944	9.377
18	RANI	8.738	7.510	9.480	5.283
19	YANI	7.627	9.513	9.009	9.249
20	RATIH	9.298	7.837	7.032	7.433
21	INDAH	7.441	7.737	7.633	6.473
22	JONO	5.378	9.710	9.955	6.616
23	SARAH	9.351	7.632	9.889	8.594
24	RAMA	6.287	5.718	8.925	5.443
25	BAMBANG	8.692	6.366	6.494	5.608
26	HADI	2 607	0 222	9.457	0.572

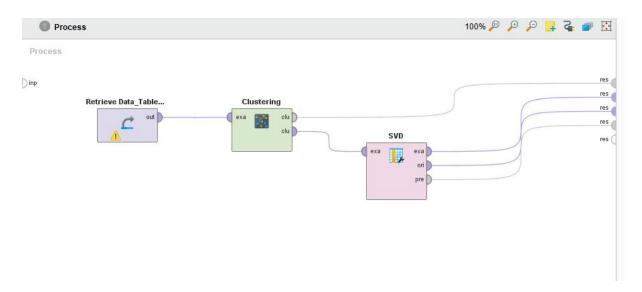
ExampleSet (30 examples, 1 special attribute, 4 regular attributes)

Row No.	NAMA	B.IND	B.ING	MTK	IPA
18	RANI	8.738	7.510	9.480	5.283
19	YANI	7.627	9.513	9.009	9.249
20	RATIH	9.298	7.837	7.032	7.433
21	INDAH	7.441	7.737	7.633	6.473
22	JONO	5.378	9.710	9.955	6.616
23	SARAH	9.351	7.632	9.889	8.594
24	RAMA	6.287	5.718	8.925	5.443
25	BAMBANG	8.692	6.366	6.494	5.608
26	HADI	8.697	9.233	8.457	9.572
27	NANA	5.716	7.498	8.760	9.800
28	FEBRI	5.491	8.904	7.519	8.144
29	DENI	7.990	8.652	5.651	5.987
30	TONI	8.194	6.335	5.298	7.201

4. tambahkan operator –means. Hubungkan output operator retrieve ke entry exa operator ini dan output clu(cluster model) dihubungkan ke connector res panel. Ubah nilai parameter k=3 pada operator ini



5. tambahkan operator SVD. Lalu hubungkan output clu ke-2 operator clustering (k-means) kedalam entry exa operator SVD dan 3 port output exa,ori, dan pre terhadap konektor



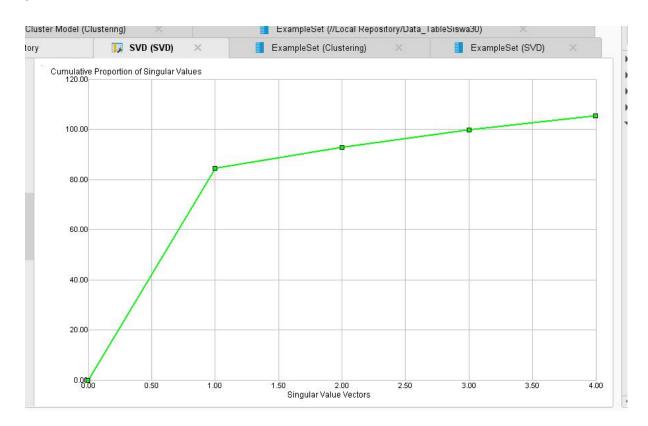
- 6. hasil proses clustering dengan algoritma K-means
- a) SVD
- i. nilai Eigenvalue

Component	Singular Value	Proportion of Singular V	Cumulative Singular Val	Cumulative Proportion o
SVD 1	84.502	0.801	84.502	0.801
SVD 2	8.430	0.080	92.933	0.881
SVD 3	6.944	0.066	99.876	0.947
SVD 4	5.599	0.053	105.475	1.000

## 7. Nilai Svd vector

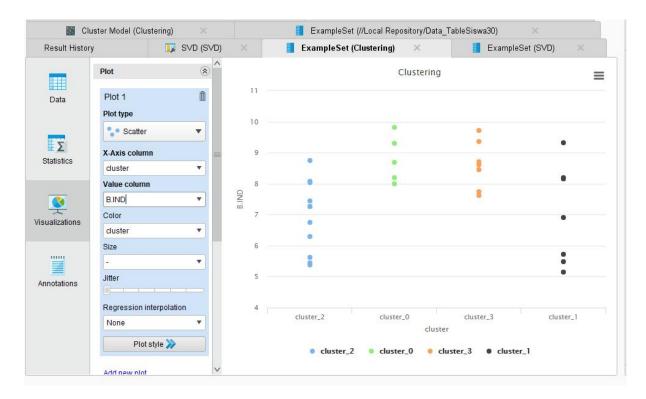
Attribute	SVD Vector 1	SVD Vector 2	SVD Vector 3
B.IND	0.498	-0.522	0.615
B.ING	0.502	0.068	0.095
MTK	0.514	0.774	0.051
IPA	0.487	-0.353	-0.781

## 8. nilai cumulative variance

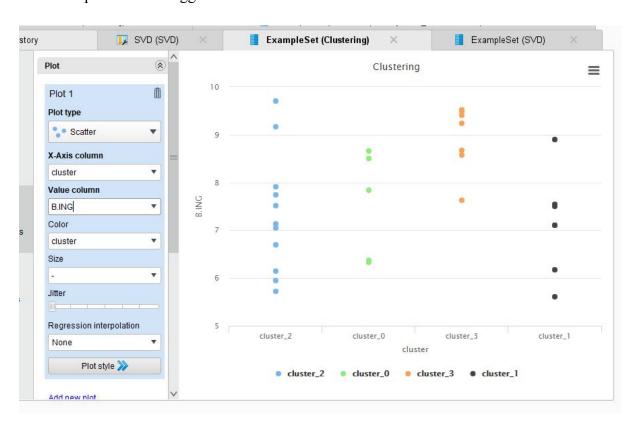


## 9. exampleSet K-means

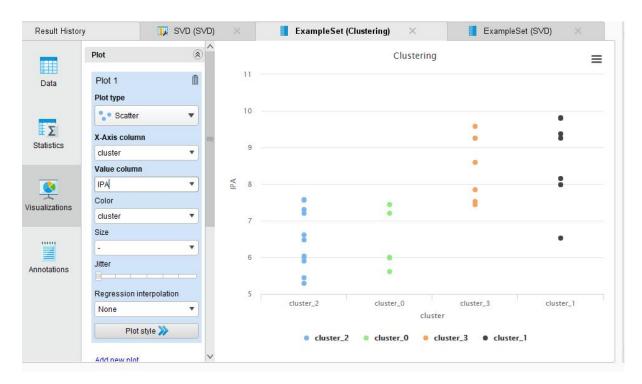
#### Kelompok siswa B.Indonesia



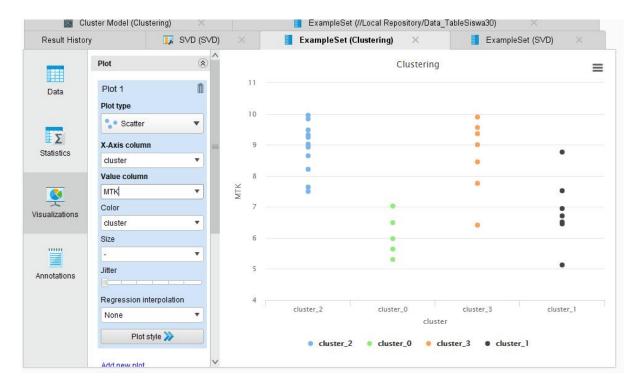
### 10. Kelompok siswa B.Inggris



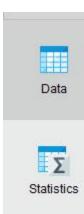
#### 9. Kelompok siswa IPA



### 10. Kelompok siswa MTK



## 11. hasil ExampleSet (SVD)



Visualizations

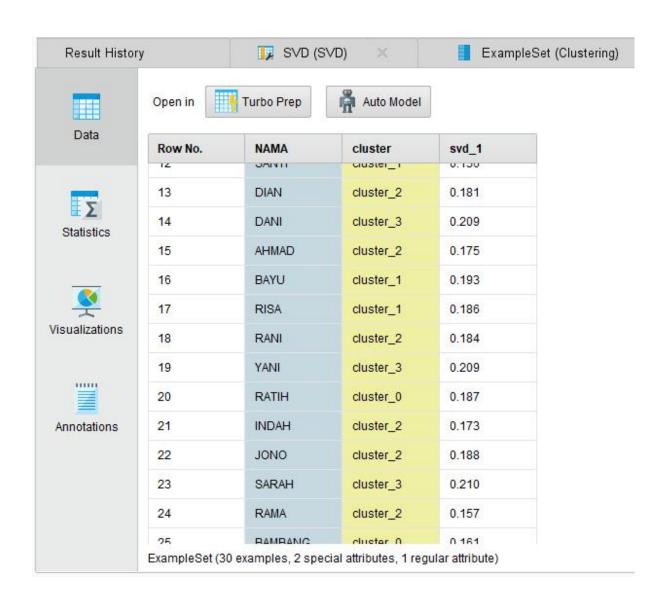
Annotations

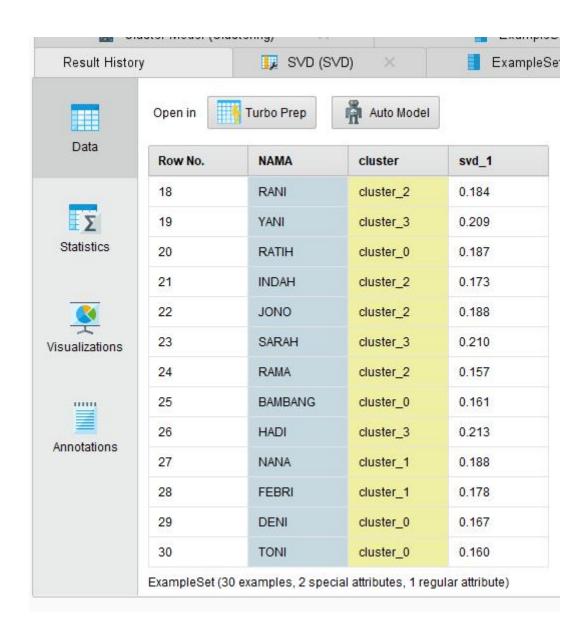




Row No.	NAMA	cluster	svd_1	
1	JOKO	cluster_2	0.193	
2	AGUS	cluster_0	0.179	
3	SUSI	cluster_3	0.199	
4	DYAH	cluster_2	0.176	
5	WATI	cluster_1	0.176	
6	IKA	cluster_2	0.148	
7	EKO	cluster_2	0.181	
8	YANTO	cluster_1	0.171	
9	WAWAN	cluster_3	0.198	
10	MAHMUD	cluster_2	0.177	
11	BUDI	cluster_3	0.197	
12	SANTI	cluster_1	0.136	
13	DIAN	cluster_2	0.181	

ExampleSet (30 examples, 2 special attributes, 1 regular attribute)





# 12. Cluster Model(Clustering)

