

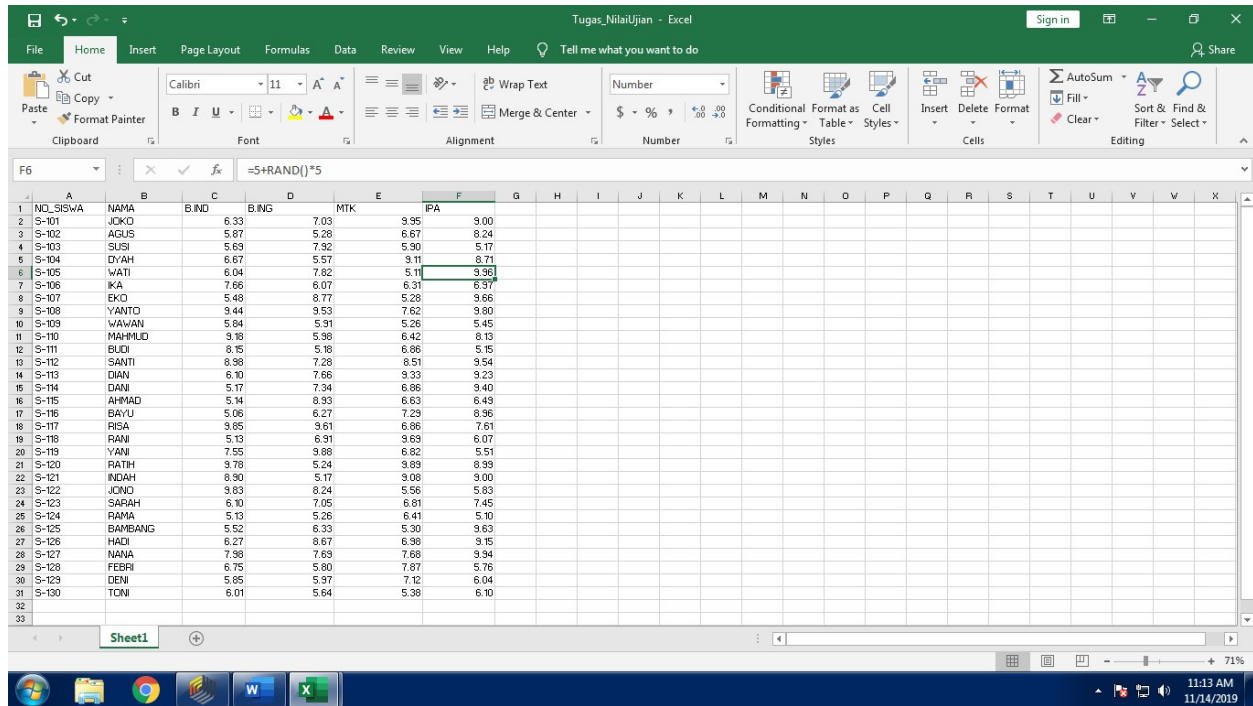
Nama: Tio Septiadi Murbiantoro

Nim :L200170099

Kelas : B

### Tugas

- Berikut adalah table siswa dan memasukkan nilai secara random dengan  $=5+RAND()*5$



The screenshot shows a Microsoft Excel spreadsheet titled "Tugas\_NilaiUjian - Excel". The spreadsheet contains a table with 31 rows of student data. The columns are labeled A through X. The data is as follows:

No.	Siswa	NAMA	B.IND	B.ING	MTK	IPA
1	S-101	JOKO	6.33	7.03	9.35	9.00
2	S-102	AGUS	5.87	5.26	6.67	8.24
3	S-103	SUSI	5.69	7.92	5.30	5.17
4	S-104	DYAH	6.67	5.57	9.11	8.71
5	S-105	WATI	6.04	7.82	5.11	9.36
6	S-106	KA	7.66	6.07	6.31	6.37
7	S-107	IKO	5.48	8.77	5.28	9.66
8	S-108	YANTO	9.44	9.53	7.62	9.80
9	S-109	WAWAN	5.84	5.91	5.26	5.45
10	S-110	MAHMUD	3.18	5.98	6.42	8.13
11	S-111	BUDI	8.15	5.18	6.86	5.15
12	S-112	SANTI	8.98	7.26	8.51	9.54
13	S-113	DANI	6.10	7.66	9.33	9.23
14	S-114	DANI	5.17	7.34	6.86	9.40
15	S-115	AHMAD	5.14	8.33	6.63	6.49
16	S-116	BAYU	5.06	6.27	7.29	8.96
17	S-117	RISA	9.85	9.61	6.86	7.61
18	S-118	RANI	5.13	6.91	9.69	6.07
19	S-119	YANI	7.55	9.88	6.82	5.51
20	S-120	RATHI	9.78	5.24	9.89	8.99
21	S-121	INDAH	8.30	5.17	9.08	9.00
22	S-122	JONO	9.63	8.24	5.56	5.83
23	S-123	SARAH	6.10	7.05	6.81	7.45
24	S-124	RAMA	5.13	5.26	6.41	5.10
25	S-125	BAMBANG	5.52	6.33	5.30	9.63
26	S-126	HADI	6.27	8.67	6.98	9.15
27	S-127	NANA	7.98	7.63	7.68	9.94
28	S-128	FEBRI	6.75	5.80	7.87	5.76
29	S-129	DENI	5.85	5.97	7.12	6.04
30	S-130	TONI	6.01	5.64	5.38	6.10

- Gunakan file Tugas\_NilaiUjian.xlsx sebagai data yang akan digunakan dalam proses Clustering. Lalu import ke dalam aplikasi RapidMiner.

The image displays two screenshots of the RapidMiner Studio Free 9.3.001 interface, showing the steps to import and format data for clustering.

**Top Screenshot: Import Data - Select the cells to import.**

The "Import Data" dialog is open, showing the "Select the cells to import" step. The "Sheet" is set to "Sheet1" and the "Cell range" is "B:F". The "Define header row" checkbox is checked and set to "1". The data table is displayed below:

	A	B	C	D	E	F
13	S-112	SANTI	8.975	7.280	8.514	9.545
14	S-113	DIAN	6.098	7.660	9.331	9.226
15	S-114	DANI	5.170	7.338	6.863	9.401
16	S-115	AHMAD	5.140	8.933	6.625	6.490
17	S-116	BAYU	5.062	6.268	7.287	8.958
18	S-117	RISA	9.846	9.611	6.862	7.611
19	S-118	RANI	5.126	6.906	9.694	6.069
20	S-119	YANI	7.547	9.881	6.825	5.510
21	S-120	RATIH	9.785	5.239	9.893	8.987
22	S-121	INDAH	8.901	5.171	9.076	9.005
23	S-122	JONO	9.832	8.238	5.557	5.830
24	S-123	SARAH	6.105	7.050	6.814	7.449
25	S-124	RAMA	5.127	5.262	6.411	5.104
26	S-125	BAMBANG	5.523	6.326	5.300	9.633

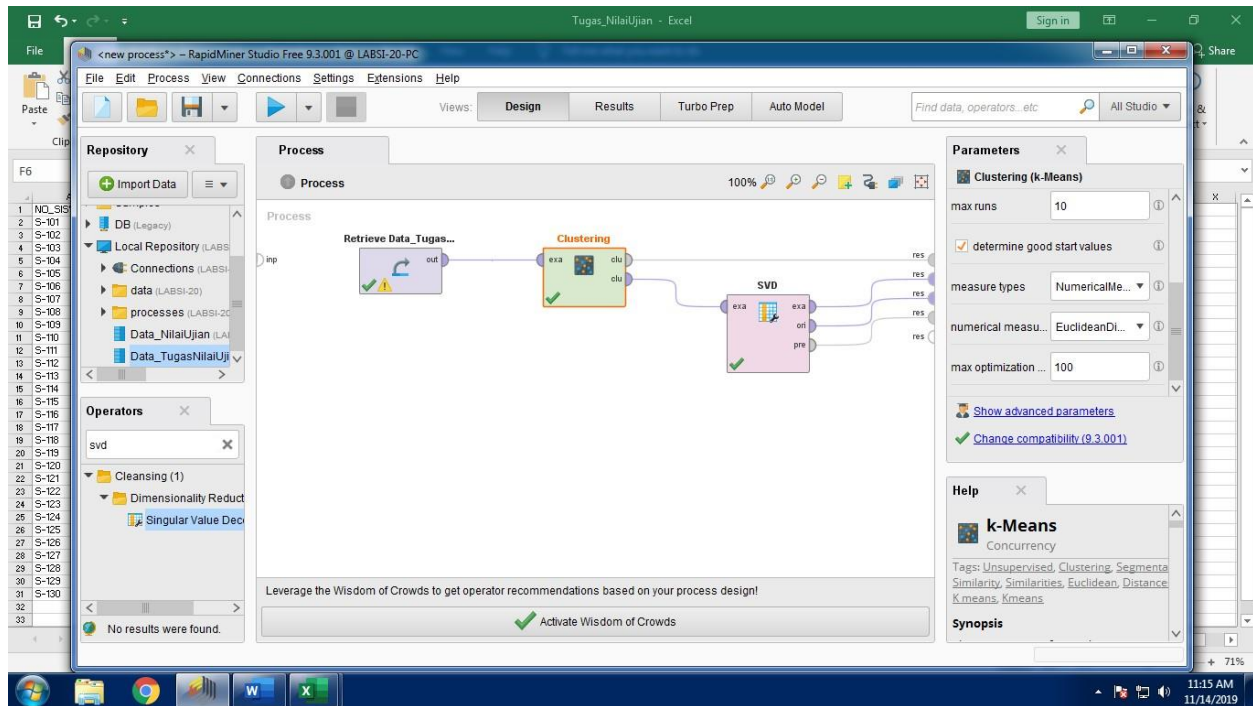
**Bottom Screenshot: Import Data - Format your columns.**

The "Import Data" dialog is open, showing the "Format your columns" step. The "Replace errors with missing values" checkbox is unchecked. The data table is displayed below:

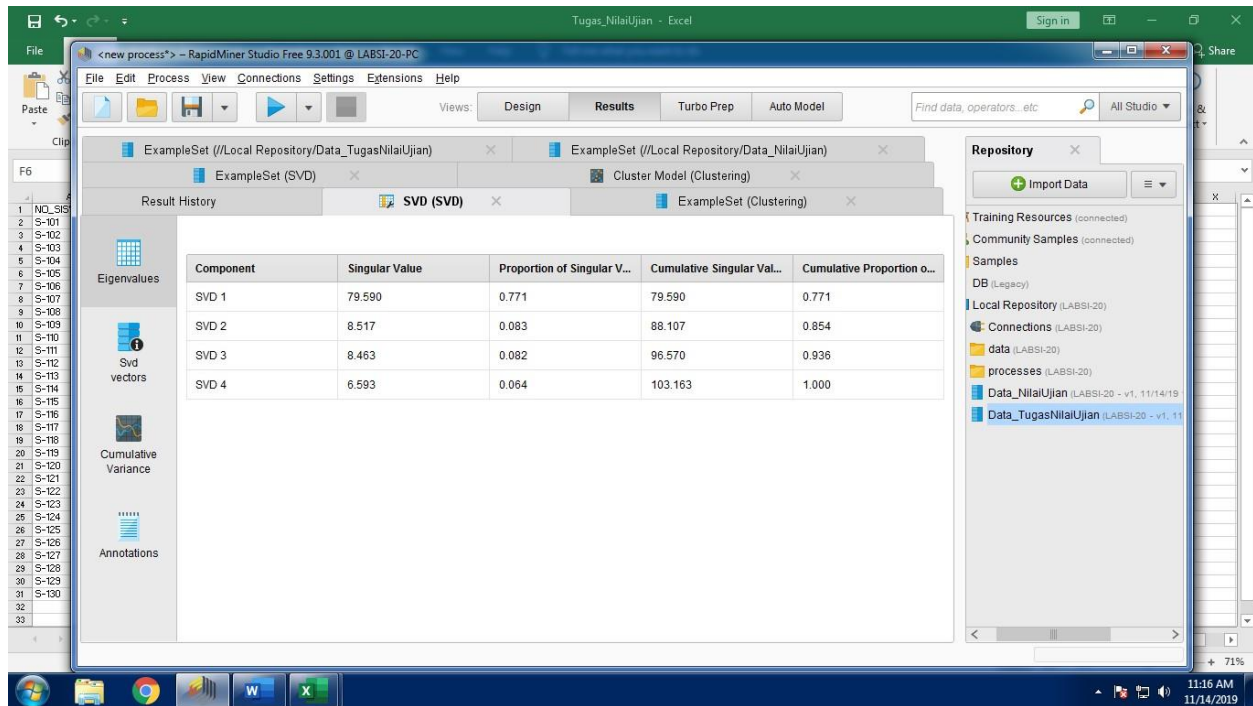
	NAMA polynomial id	B.IND real	B.ING real	MTK real	IPA real
1	JOKO	6.330	7.029	9.950	9.001
2	AGUS	5.869	5.275	6.666	8.243
3	SUSI	5.692	7.916	5.903	5.166
4	DYAH	6.671	5.570	9.109	8.714
5	WATI	6.039	7.820	5.111	9.961
6	IKA	7.658	6.069	6.309	6.972
7	EKO	5.485	8.767	5.277	9.657
8	YANTO	9.438	9.526	7.619	9.803
9	WAWAN	5.839	5.907	7.619	5.454
10	MAHMUD	9.182	5.976	6.424	8.129
11	BUDI	8.155	5.177	6.863	5.152
12	SANTI	8.975	7.280	8.514	9.545
13	DIAN	6.098	7.660	9.331	9.226

The status bar at the bottom of the dialog indicates "no problems."

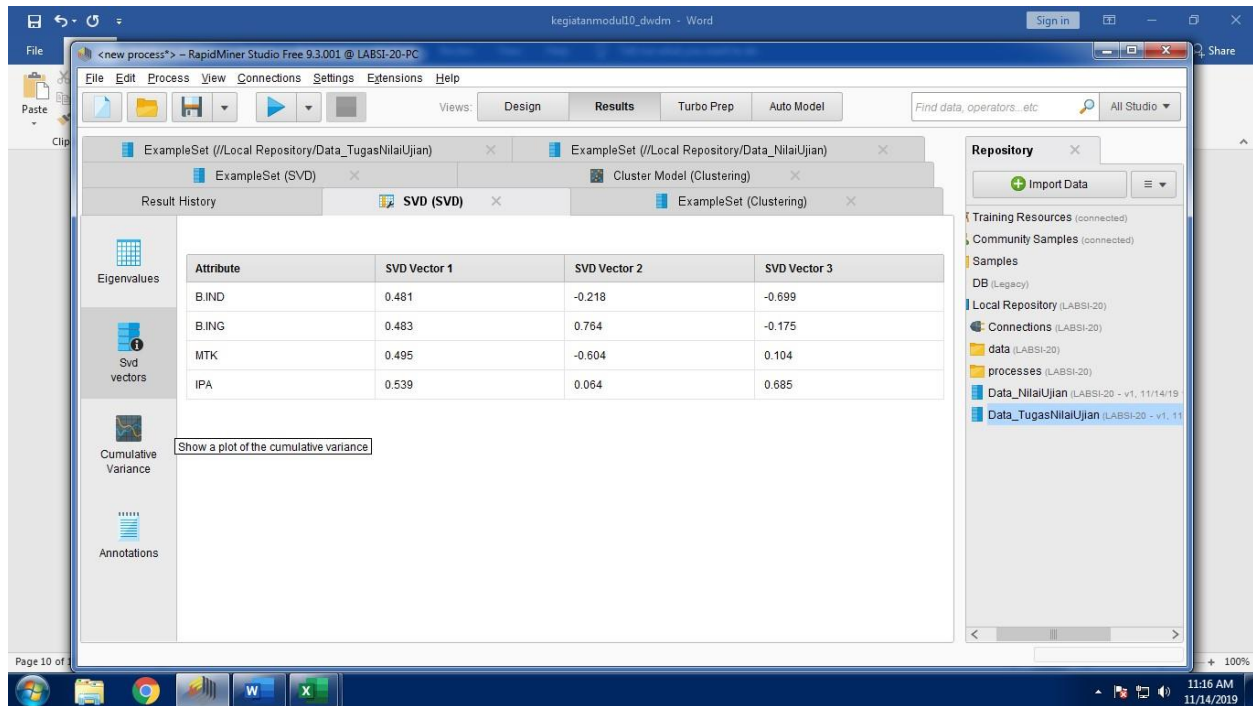
- Tambahkan operator k-Means. Lalu Jalankan dengan menekan tombol run (F11)



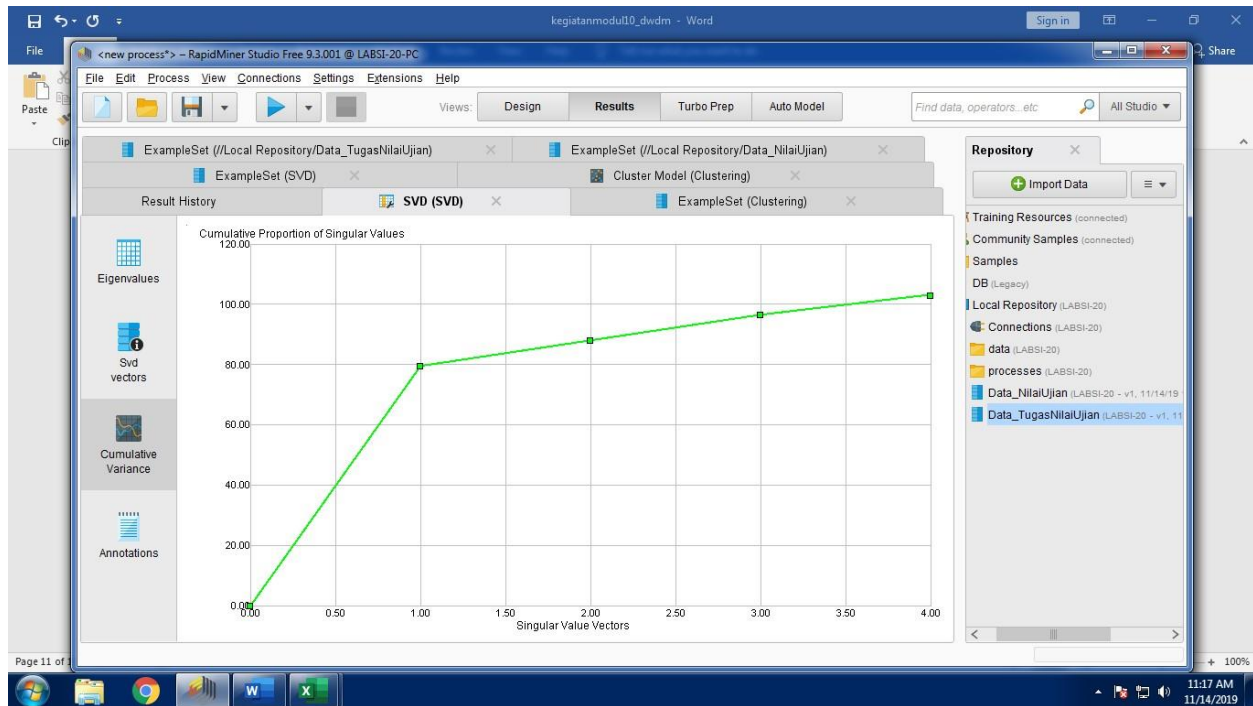
## Nilai Eigenvalue



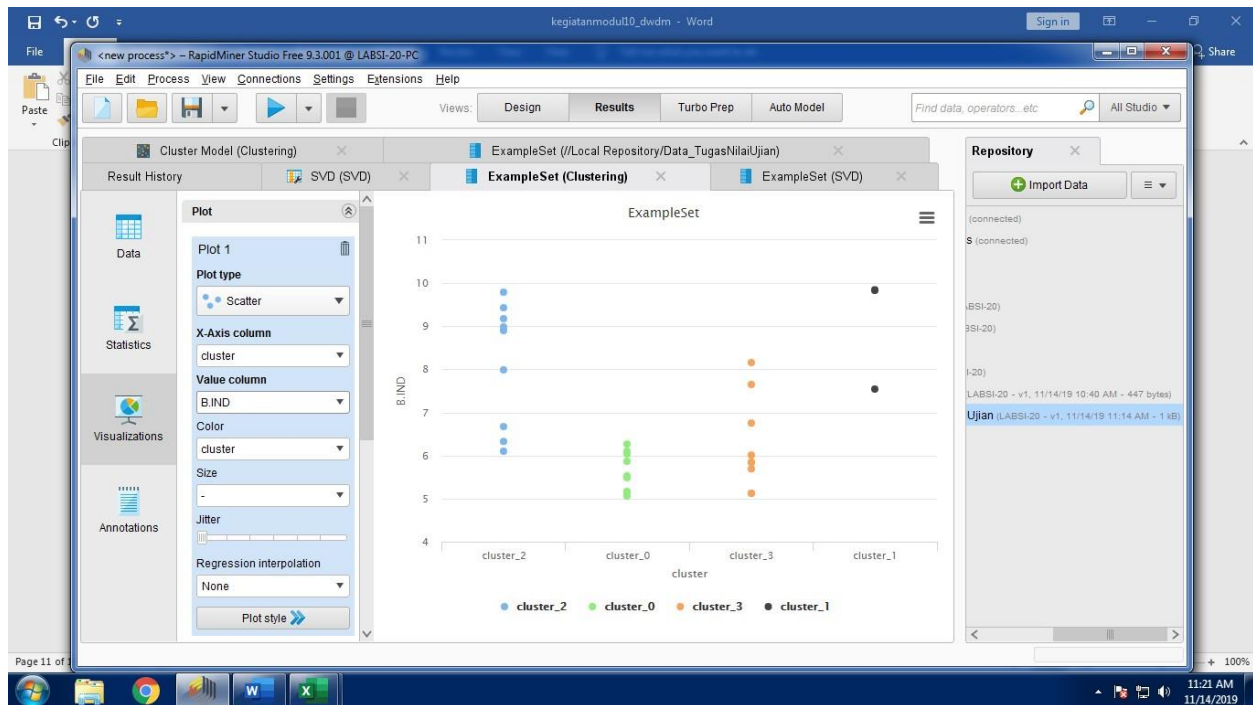
## Nilai Svd Vectors



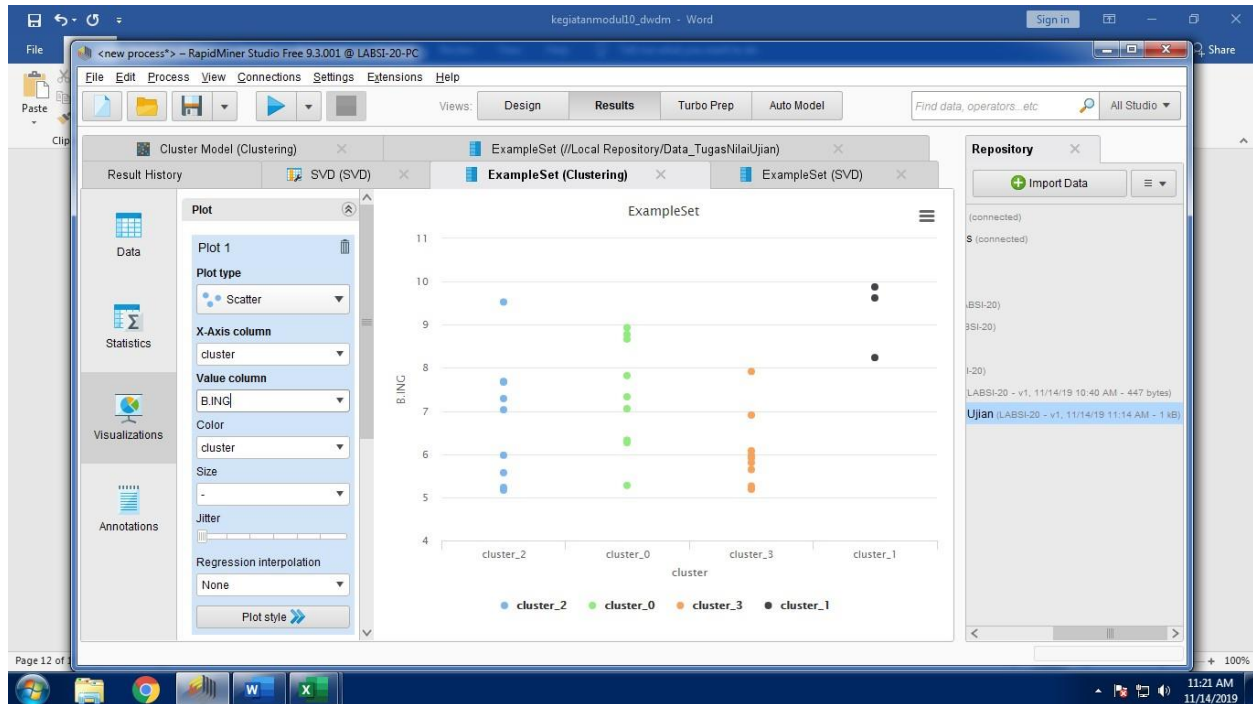
## Nilai Cumulative Variance



## Kelompok siswa bidang B.INDO

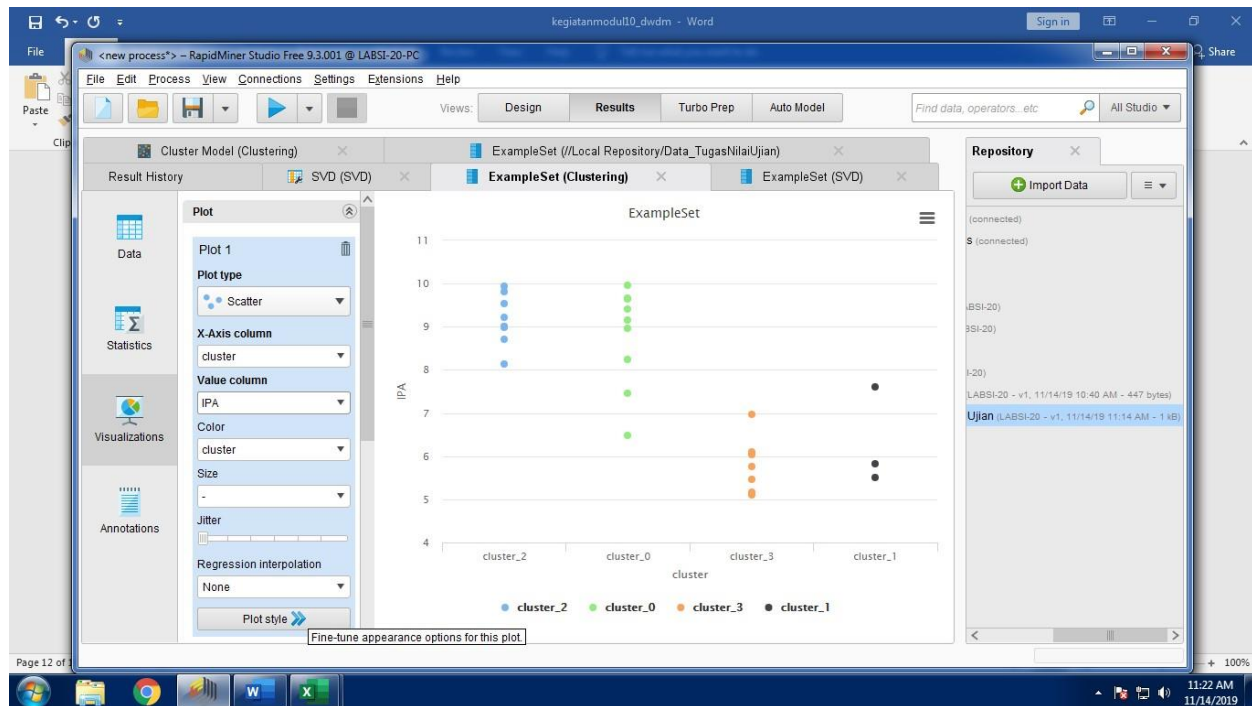


- 
- Kelompok siswa kelompok B.ING

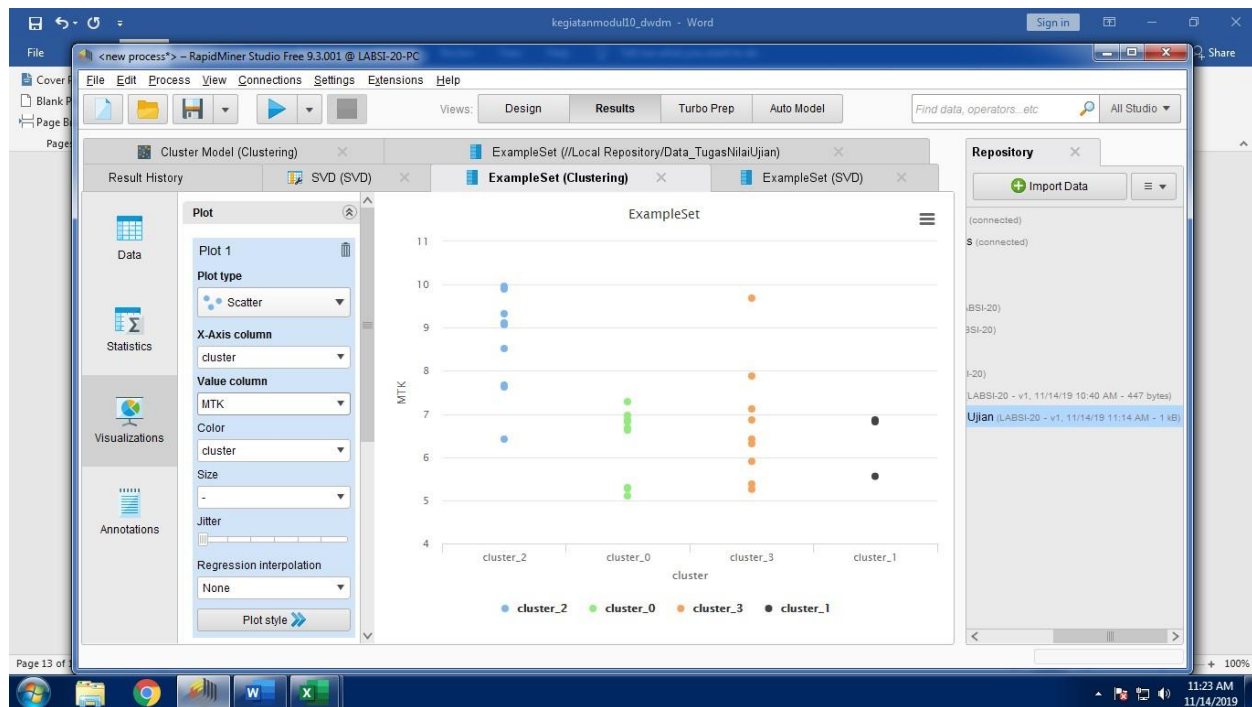




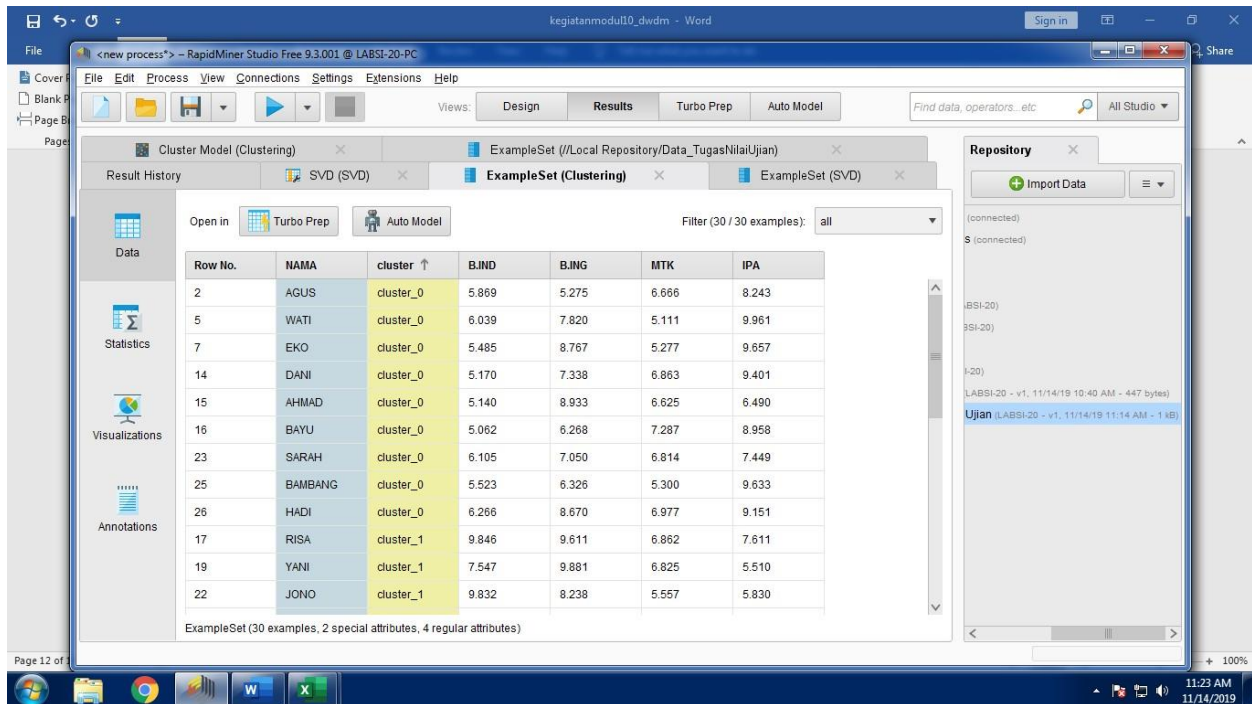
- Kelompok siswa bidang IPA



- Kelompok siswa bidang MTK



- Masing-masing nama siswa yang terdapat dalam kelompok cluster 0, cluster 1, cluster 2, cluster 3.



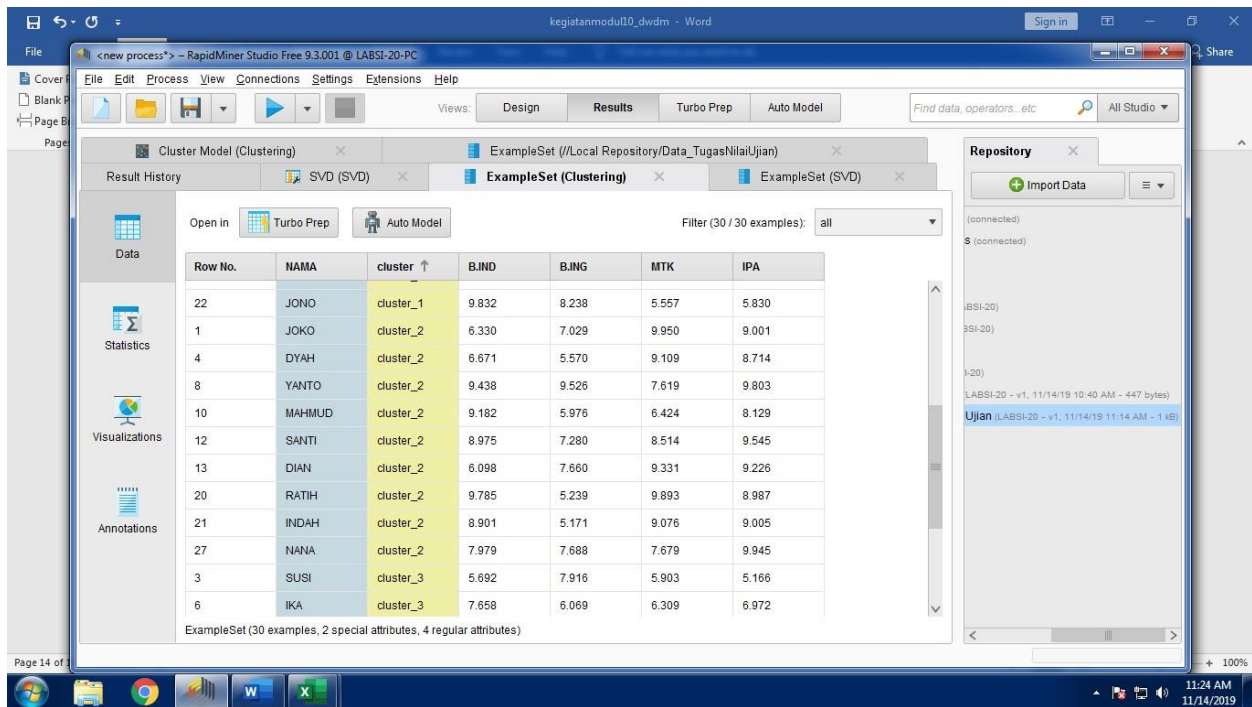
Cluster Model (Clustering) x ExampleSet (/Local Repository/Data\_TugasNilaiUjian) x

Result History x SVD (SVD) x ExampleSet (Clustering) x ExampleSet (SVD) x

Open in Turbo Prep Auto Model Filter (30 / 30 examples): all

Row No.	NAMA	cluster ↑	B.JND	B.JING	MTK	IPA
2	AGUS	cluster_0	5.869	5.275	6.666	8.243
5	WATI	cluster_0	6.039	7.820	5.111	9.961
7	EKO	cluster_0	5.485	8.767	5.277	9.657
14	DANI	cluster_0	5.170	7.338	6.863	9.401
15	AHMAD	cluster_0	5.140	8.933	6.625	6.490
16	BAYU	cluster_0	5.062	6.268	7.287	8.958
23	SARAH	cluster_0	6.105	7.050	6.814	7.449
25	BAMBANG	cluster_0	5.523	6.326	5.300	9.633
26	HADI	cluster_0	6.266	8.670	6.977	9.151
17	RISA	cluster_1	9.846	9.611	6.862	7.611
19	YANI	cluster_1	7.547	9.881	6.825	5.510
22	JONO	cluster_1	9.832	8.238	5.557	5.830

ExampleSet (30 examples, 2 special attributes, 4 regular attributes)



Cluster Model (Clustering) x ExampleSet (/Local Repository/Data\_TugasNilaiUjian) x

Result History x SVD (SVD) x ExampleSet (Clustering) x ExampleSet (SVD) x

Open in Turbo Prep Auto Model Filter (30 / 30 examples): all

Row No.	NAMA	cluster ↑	B.JND	B.JING	MTK	IPA
22	JONO	cluster_1	9.832	8.238	5.557	5.830
1	JOKO	cluster_2	6.330	7.029	9.950	9.001
4	DYAH	cluster_2	6.671	5.570	9.109	8.714
8	YANTO	cluster_2	9.438	9.526	7.619	9.803
10	MAHMUD	cluster_2	9.182	5.976	6.424	8.129
12	SANTI	cluster_2	8.975	7.280	8.514	9.545
13	DIAN	cluster_2	6.098	7.660	9.331	9.226
20	RATIH	cluster_2	9.785	5.239	9.893	8.987
21	INDAH	cluster_2	8.901	5.171	9.076	9.005
27	NANA	cluster_2	7.979	7.688	7.679	9.945
3	SUSI	cluster_3	5.692	7.916	5.903	5.166
6	IKA	cluster_3	7.658	6.069	6.309	6.972

ExampleSet (30 examples, 2 special attributes, 4 regular attributes)





