

Nama : RONI ARDIANZAH

NIM : L200170073

KELAS : C

MODUL-10

CLUSTERING : K-MEANS

PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

LANGKAH – LANGKAH PRATIKUM :

- Membuat data di excel dan disimpan dengan nama Tabel_NilaiUjian.xls

NO-SISWA	NAMA	B.IND	B.ING
S-101	JOKO	8.54	8.4
S-102	AGUS	9.98	6.81
S-103	SUSI	6.2	9.15
S-104	DYAH	5.24	7.26
S-105	WATI	5.7	5.71
S-106	IKA	8.57	5.87
S-107	EKO	7.7	7.71
S-108	YANTO	6.6	5.7
S-109	WAWAN	9	8.12
S-110	MAHMUD	9.81	9.58

- Gunakan file Tabel_NilaiUjian.xls

Import Data - Select the cells to import.

Select the cells to import.

Sheet: Sheet1

Cell range: B1:D11

Select All

☒ Define header row: 1

	A	B	C	D
1	NO-SISWA	NAMA	B.IND	B.ING
2	S-101	JOKO	8.540	8.400
3	S-102	AGUS	9.980	6.810
4	S-103	SUSI	6.200	9.150
5	S-104	DYAH	5.240	7.260
6	S-105	WATI	5.700	5.710
7	S-106	IKA	8.570	5.870
8	S-107	EKO	7.700	7.710
9	S-108	YANTO	6.600	5.700
10	S-109	WAWAN	9.000	8.120
11	S-110	MAHMUD	9.810	9.580

Previous

Next

Cancel

MODUL-10
CLUSTERING : K-MEANS
PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

- Ubah kolom nama menjadi id, klik change>>role>>id>>ok

Import Data - Format your columns.

Format your columns.

☐ Replace errors with missing values ⓘ

	NAMA <i>polynomial</i>	B.IND <i>real</i>	B.ING <i>real</i>
1	JOKO		
2	AGUS		
3	SUSI		
4	DYAH		
5	WATI		
6	IKA		
7	EKO		
8	YANTO		
9	WAWAN	9.000	8.120
10	MAHMUD	9.810	9.580

Change role

Please enter the new role:

id

OK Cancel

✔ no problems.

Previous Next Cancel

Import Data - Format your columns.

Format your columns.

☐ Replace errors with missing values ⓘ

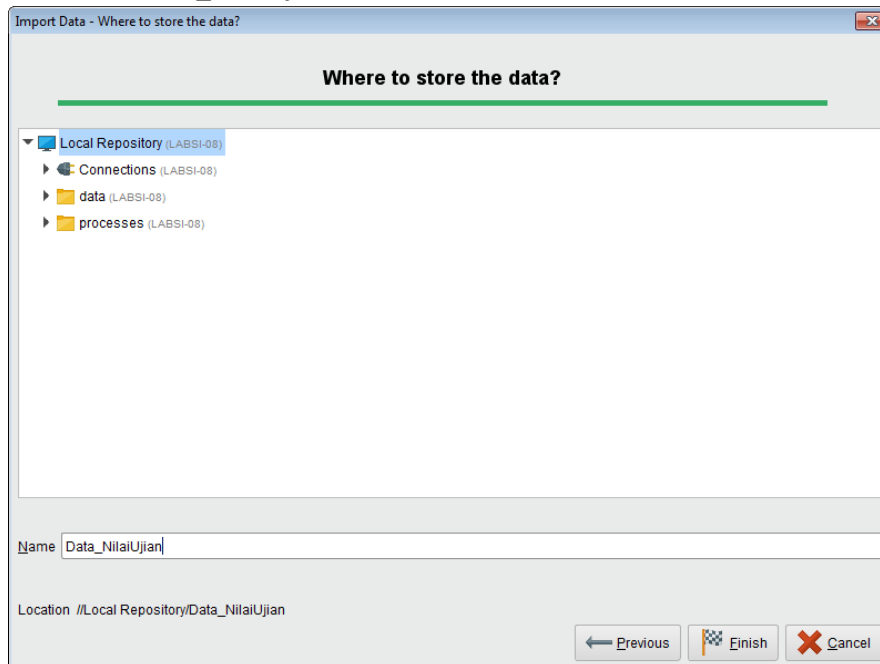
	NAMA <i>polynomial</i> <i>id</i>	B.IND <i>real</i>	B.ING <i>real</i>
1	JOKO	8.540	8.400
2	AGUS	9.980	6.810
3	SUSI	6.200	9.150
4	DYAH	5.240	7.260
5	WATI	5.700	5.710
6	IKA	8.570	5.870
7	EKO	7.700	7.710
8	YANTO	6.600	5.700
9	WAWAN	9.000	8.120
10	MAHMUD	9.810	9.580

✔ no problems.

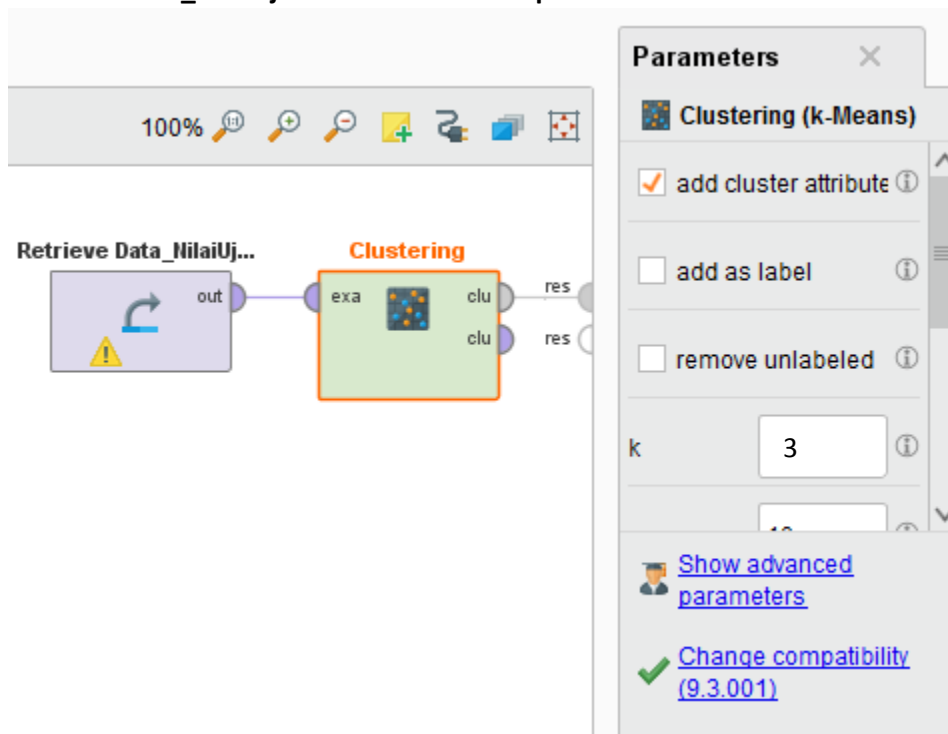
Previous Next Cancel

MODUL-10
CLUSTERING : K-MEANS
PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

- Beri nama Data_NilaiUjian >> finish

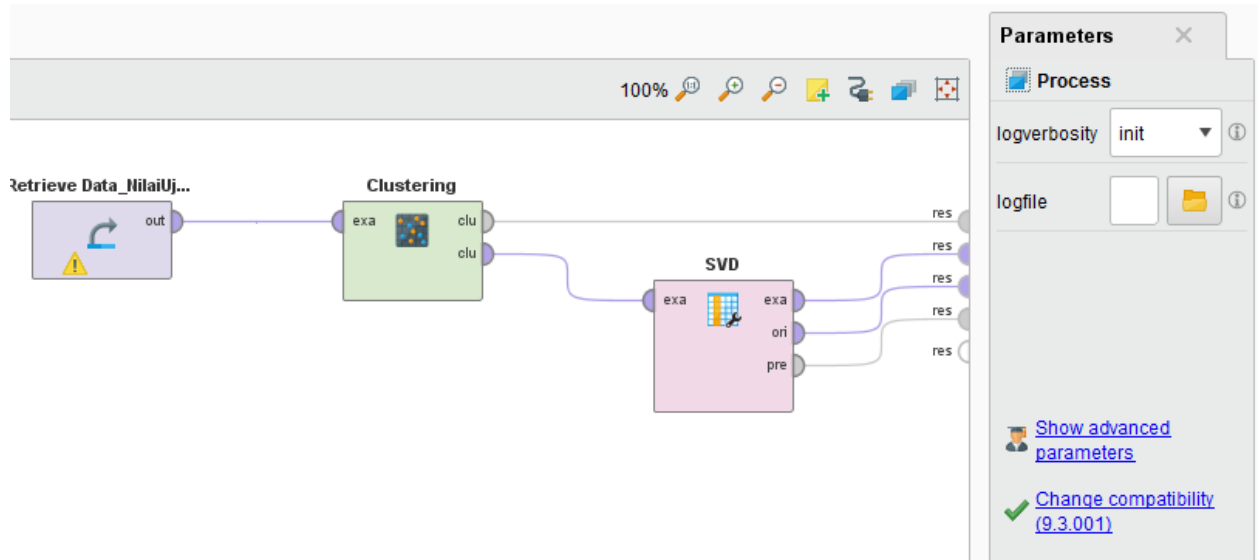


- Gunakan Data_NilaiUjian dan tambahkan operator k-means



MODUL-10
CLUSTERING : K-MEANS
PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

- Tambahkan operator SVD



- Jalankan proses tekan F11
 - a) SVD (Singular Value Decomposition)

I. Nilai Eigenvalue

It History	SVD (SVD) ×	ExampleSet (SVD) ×
------------	--------------------------	---------------------------------

Component	Singular Value	Proportion of Singular V...	Cumulative Singular Val...	Cumulative Proportion o...
SVD 1	34.340	0.898	34.340	0.898
SVD 2	3.906	0.102	38.246	1.000

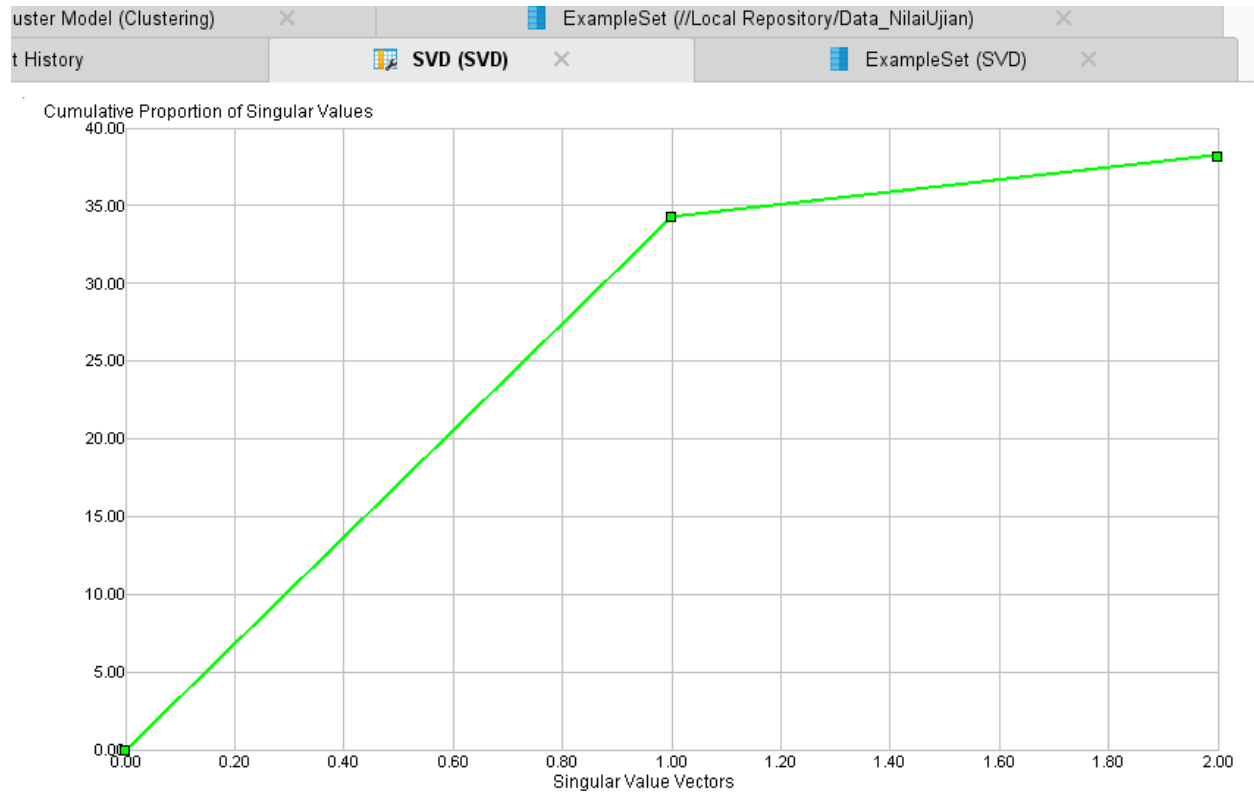
II. Nilai SVD Vectors

Cluster Model (Clustering)	SVD (SVD) ×	ExampleSet (SVD) ×
----------------------------	--------------------------	---------------------------------

Attribute	SVD Vector 1
B.IND	0.723
B.ING	0.690

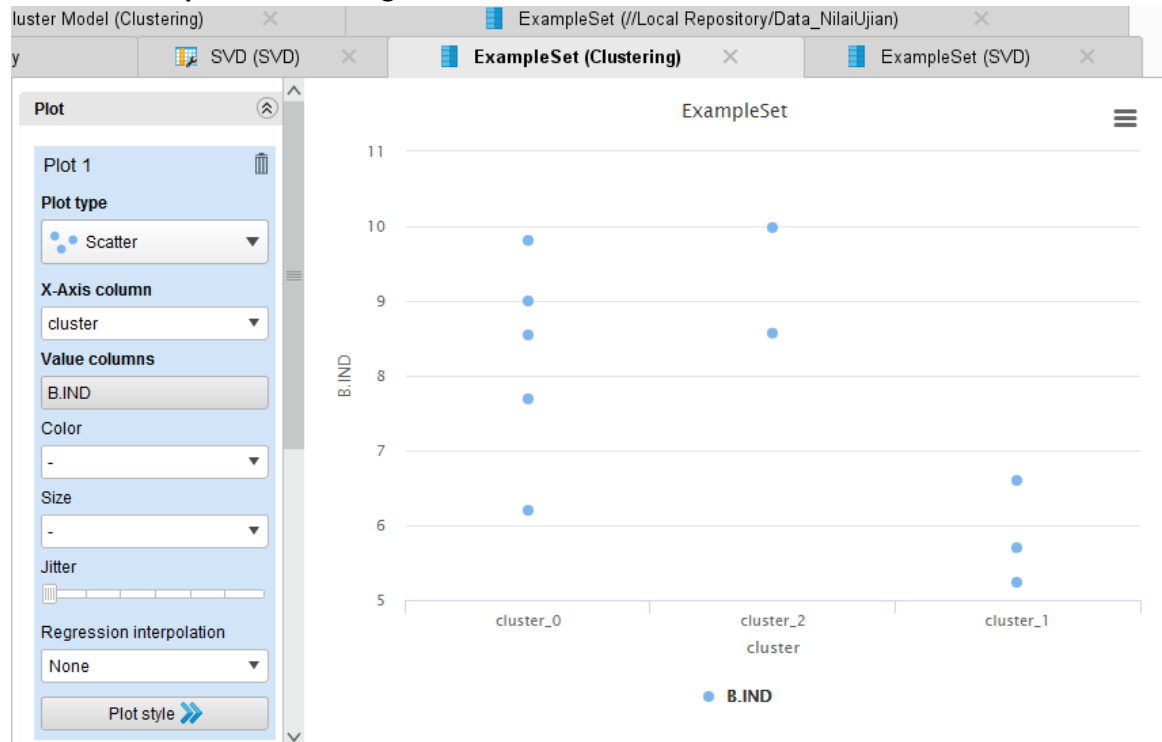
MODUL-10
CLUSTERING : K-MEANS
PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

III. Nilai Cumulative variance



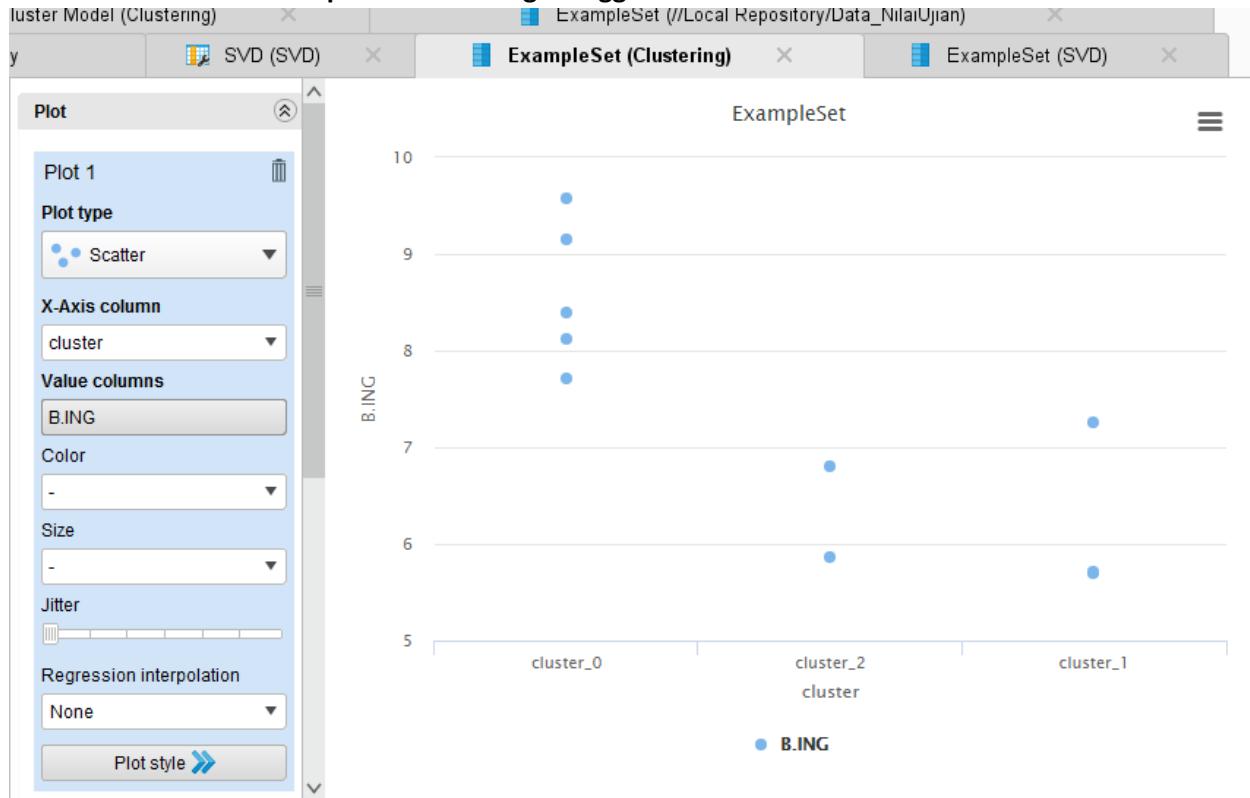
b) ExampleSET

I. Kelompok Siswa bidang B. Indonesia



MODUL-10
CLUSTERING : K-MEANS
PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

II. Kelompok Siswa bidang B. Inggris



c) ExampleSet (SVD)

Row No.	NAMA	cluster ↑	svd_1
1	JOKO	cluster_0	0.349
3	SUSI	cluster_0	0.315
7	EKO	cluster_0	0.317
9	WAWAN	cluster_0	0.353
10	MAHMUD	cluster_0	0.399
4	DYAH	cluster_1	0.256
5	WATI	cluster_1	0.235
8	YANTO	cluster_1	0.254
2	AGUS	cluster_2	0.347
6	IKA	cluster_2	0.299

MODUL-10

CLUSTERING : K-MEANS

PRAKTIKUM DATA WAREHOUSING DAN DATA MINING

d) Cluster Model (Clustering)

I. Description

Cluster Model

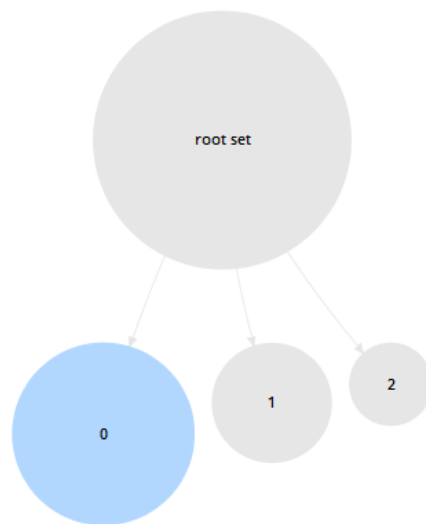
Cluster 0: 5 items

Cluster 1: 3 items

Cluster 2: 2 items

Total number of items: 10

II. Graph



JOKO
SUSI
EKO
WAWAN
MAHMUD