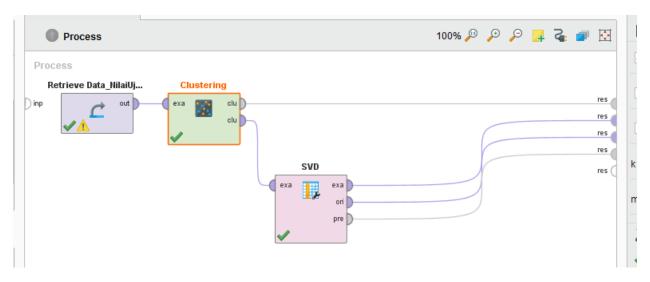
Nama : Ikhwan Fahmi T

NIM : L200170174

Modul: 14

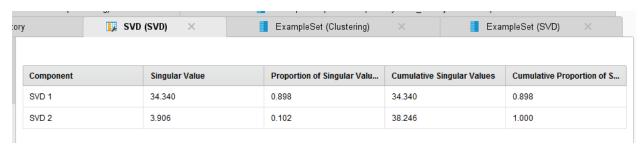
#### Praktikum

#### K-means



#### Hasil

#### SVD (SVD)



Open in	Turbo Prep	Auto Model
Daw No.	NAMA	aluator

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

# ExampleSet (Clustering)

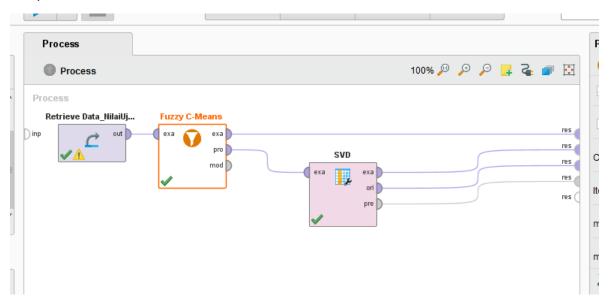
Row No.	NAMA	cluster	B.IND	B.ING
1	ЈОКО	cluster_0	8.540	8.400
2	AGUS	cluster_0	9.980	6.810
3	SUSI	cluster_1	6.200	9.150
4	DYAH	cluster_1	5.240	7.260
5	WATI	cluster_2	5.700	5.710
6	IKA	cluster_2	8.570	5.870
7	EKO	cluster_0	7.700	7.710
8	YANTO	cluster_2	6.600	5.700
9	WAWAN	cluster_0	9	8.120
10	MAHMUD	cluster_0	9.810	9.580

# ExampleSet (Data\_NilaiUjian)

Row No.	NAMA	B.IND	B.ING	MTK	IPA
1	ЈОКО	5.882	7.354	7.544	7.617
2	AGUS	8.429	6.327	5.703	9.908
3	SUSI	5.801	7.861	6.490	6.577
4	DYAH	6.022	9.976	5.789	5.717
5	WATI	9.156	5.258	9.607	5.308
6	IKA	8.527	8.702	5.393	7.429
7	EKO	9.894	7.388	9.403	8.735
8	YANTO	6.652	8.094	9.492	9.581
9	WAWAN	8.659	8.319	5.777	9.771
10	MAHMUD	7.259	9.994	5.134	8.818
11	BUDI	8.385	6.488	8.394	5.176
12	SANTI	7.847	6.795	5.072	5.336
13	DIAH	8.117	9.432	5.423	5.090
14	DANI	5.528	9.285	7.287	6.489

15   AHMAD   5.568   6.512   6.582   5.266     16   BAYU   5.951   5.382   7.546   6.048     17   RISA   5.450   7.637   7.586   5.660     18   RANI   9.905   7.252   6.230   8.759     19   YANI   7.004   6.673   5.228   9.078     20   RATIH   8.593   5.743   7.517   7.939     21   INDAH   9.775   8.668   6.844   8.079     22   JONO   7.119   7.235   5.044   5.191     23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036     29   DENI						
17   RISA   5.450   7.637   7.586   5.660     18   RANI   9.905   7.252   6.230   8.759     19   YANI   7.004   6.673   5.228   9.078     20   RATIH   8.593   5.743   7.517   7.939     21   INDAH   9.775   8.668   6.844   8.079     22   JONO   7.119   7.235   5.044   5.191     23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	15	AHMAD	5.568	6.512	6.582	5.266
18   RANI   9.905   7.252   6.230   8.759     19   YANI   7.004   6.673   5.228   9.078     20   RATIH   8.593   5.743   7.517   7.939     21   INDAH   9.775   8.668   6.844   8.079     22   JONO   7.119   7.235   5.044   5.191     23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	16	BAYU	5.951	5.382	7.546	6.048
19   YANI   7.004   6.673   5.228   9.078     20   RATIH   8.593   5.743   7.517   7.939     21   INDAH   9.775   8.668   6.844   8.079     22   JONO   7.119   7.235   5.044   5.191     23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	17	RISA	5.450	7.637	7.586	5.660
20   RATIH   8.593   5.743   7.517   7.939     21   INDAH   9.775   8.668   6.844   8.079     22   JONO   7.119   7.235   5.044   5.191     23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	18	RANI	9.905	7.252	6.230	8.759
21   INDAH   9.775   8.668   6.844   8.079     22   JONO   7.119   7.235   5.044   5.191     23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	19	YANI	7.004	6.673	5.228	9.078
22 JONO 7.119 7.235 5.044 5.191   23 SARAH 5.314 9.455 5.221 7.919   24 RAMA 8.228 9.268 7.039 5.596   25 BAMBANG 9.471 7.202 8.362 6.383   26 HADI 9.605 8.443 7.412 5.640   27 NANA 8.027 6.525 9.345 7.413   28 FEBRI 6.696 9.079 9.307 6.036	20	RATIH	8.593	5.743	7.517	7.939
23   SARAH   5.314   9.455   5.221   7.919     24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	21	INDAH	9.775	8.668	6.844	8.079
24   RAMA   8.228   9.268   7.039   5.596     25   BAMBANG   9.471   7.202   8.362   6.383     26   HADI   9.605   8.443   7.412   5.640     27   NANA   8.027   6.525   9.345   7.413     28   FEBRI   6.696   9.079   9.307   6.036	22	JONO	7.119	7.235	5.044	5.191
25 BAMBANG 9.471 7.202 8.362 6.383   26 HADI 9.605 8.443 7.412 5.640   27 NANA 8.027 6.525 9.345 7.413   28 FEBRI 6.696 9.079 9.307 6.036	23	SARAH	5.314	9.455	5.221	7.919
26 HADI 9.605 8.443 7.412 5.640   27 NANA 8.027 6.525 9.345 7.413   28 FEBRI 6.696 9.079 9.307 6.036	24	RAMA	8.228	9.268	7.039	5.596
27 NANA 8.027 6.525 9.345 7.413   28 FEBRI 6.696 9.079 9.307 6.036	25	BAMBANG	9.471	7.202	8.362	6.383
28 FEBRI 6.696 9.079 9.307 6.036	26	HADI	9.605	8.443	7.412	5.640
	27	NANA	8.027	6.525	9.345	7.413
29 DENI 6.610 6.126 6.874 7.240	28	FEBRI	6.696	9.079	9.307	6.036
29 DENI 6.610 6.126 6.874 7.240						
	29	DENI	6.610	6.126	6.874	7.240
30 TONI 8.631 7.924 7.999 6.896	30	TONI	8.631	7.924	7.999	6.896

## Fuzzy C-Means



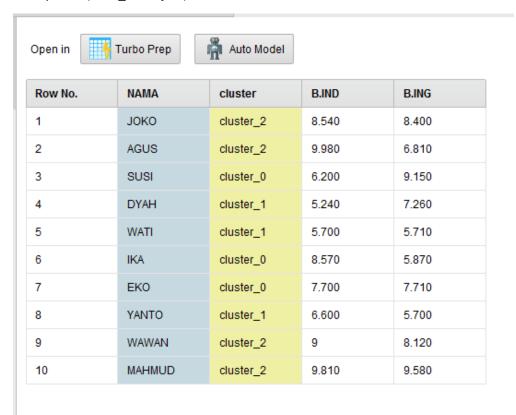
### Hasil

## SVD (SVD)

Component	Singular Value	Proportion of Singular Valu	Cumulative Singular Values	Cumulative Proportion of S
SVD 1	18.509	0.962	18.509	0.962
SVD 2	0.734	0.038	19.243	1.000

Row No.	cluster	svd_1
1	cluster_0	0.588
2	cluster_1	0.465
3	cluster_2	0.662

### ExampleSet (Data\_NilaiUjian)

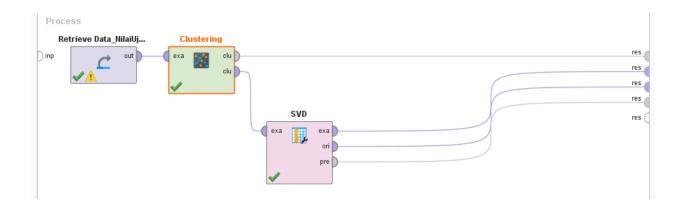


### ExampleSet (Fuzzy C-Means)

Row No.	cluster	B.IND	B.ING
1	cluster_0	7.482	7.931
2	cluster_1	6.089	6.078
3	cluster_2	9.164	8.139

## Tugas

# Clustering K-means



### Hasil

# SVD (SVD)

Component	Singular Value	Proportion of Singular Valu	Cumulative Singular Values	Cumulative Proportion of S
SVD 1	80.758	0.772	80.758	0.772
SVD 2	9.102	0.087	89.860	0.859
SVD 3	7.894	0.076	97.754	0.935
SVD 4	6.795	0.065	104.549	1.000

# ExampleSet (Clustering)

Row No.	NAMA	cluster	B.IND	B.ING	MTK	IPA
1	JOKO	cluster_1	5.882	7.354	7.544	7.617
2	AGUS	cluster_0	8.429	6.327	5.703	9.908
3	SUSI	cluster_3	5.801	7.861	6.490	6.577
4	DYAH	cluster_3	6.022	9.976	5.789	5.717
5	WATI	cluster_2	9.156	5.258	9.607	5.308
6	IKA	cluster_0	8.527	8.702	5.393	7.429
7	EKO	cluster_2	9.894	7.388	9.403	8.735
8	YANTO	cluster_1	6.652	8.094	9.492	9.581
9	WAWAN	cluster_0	8.659	8.319	5.777	9.771
10	MAHMUD	cluster_0	7.259	9.994	5.134	8.818
11	BUDI	cluster_2	8.385	6.488	8.394	5.176
12	SANTI	cluster_3	7.847	6.795	5.072	5.336
13	DIAH	cluster_3	8.117	9.432	5.423	5.090

Row No.	NAMA	cluster	B.IND	B.ING	MTK	IPA
14	DANI	cluster_3	5.528	9.285	7.287	6.489
15	AHMAD	cluster_3	5.568	6.512	6.582	5.266
16	BAYU	cluster_3	5.951	5.382	7.546	6.048
17	RISA	cluster_3	5.450	7.637	7.586	5.660
18	RANI	cluster_0	9.905	7.252	6.230	8.759
19	YANI	cluster_0	7.004	6.673	5.228	9.078
20	RATIH	cluster_2	8.593	5.743	7.517	7.939
21	INDAH	cluster_0	9.775	8.668	6.844	8.079
22	JONO	cluster_3	7.119	7.235	5.044	5.191
23	SARAH	cluster_3	5.314	9.455	5.221	7.919
24	RAMA	cluster_3	8.228	9.268	7.039	5.596
25	BAMBANG	cluster_2	9.471	7.202	8.362	6.383
26	HADI	cluster_2	9.605	8.443	7.412	5.640

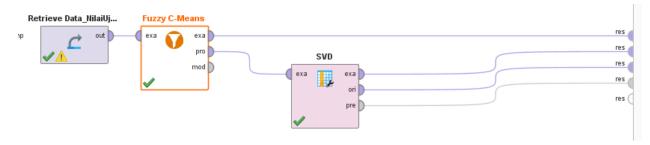
27	NANA	cluster_2	8.027	6.525	9.345	7.413
28	FEBRI	cluster_1	6.696	9.079	9.307	6.036
29	DENI	cluster_3	6.610	6.126	6.874	7.240
30	TONI	cluster_2	8.631	7.924	7.999	6.896

Row No.	NAMA	cluster	svd_1
1	JOKO	cluster_1	0.175
2	AGUS	cluster_0	0.188
3	SUSI	cluster_3	0.166
4	DYAH	cluster_3	0.171
5	WATI	cluster_2	0.181
6	IKA	cluster_0	0.187
7	EKO	cluster_2	0.219
8	YANTO	cluster_1	0.208
9	WAWAN	cluster_0	0.202
10	MAHMUD	cluster_0	0.194
11	BUDI	cluster_2	0.176
12	SANTI	cluster_3	0.156
13	DIAH	cluster_3	0.175
14	DANI	cluster_3	0.177

15	AHMAD	cluster_3	0.148
16	BAYU	cluster_3	0.154
17	RISA	cluster_3	0.163
18	RANI	cluster_0	0.199
19	YANI	cluster_0	0.173
20	RATIH	cluster_2	0.184
21	INDAH	cluster_0	0.207
22	JONO	cluster_3	0.153
23	SARAH	cluster_3	0.173
24	RAMA	cluster_3	0.188
25	BAMBANG	cluster_2	0.195
26	HADI	cluster_2	0.194
27	NANA	cluster_2	0.193
28	FEBRI	cluster_1	0.193

29	DENI	cluster_3	0.166
30	TONI	cluster_2	0.195

# Fuzzy C-Means



## Hasil

# SVD (SVD)

Component	Singular Value	Proportion of Singular Valu	Cumulative Singular Values	Cumulative Proportion of S
SVD 1	29.359	0.971	29.359	0.971
SVD 2	0.633	0.021	29.992	0.991
SVD 3	0.248	0.008	30.241	1.000
SVD 4	0.009	0.000	30.250	1.000

Row No.	cluster	svd_1
1	cluster_0	0.509
2	cluster_1	0.495
3	cluster_2	0.505
4	cluster_3	0.491

# ExampleSet (Retrieve Data\_NilaiUjian30Siswa)

Row No.	NAMA	cluster	B.IND	B.ING	MTK	IPA
1	JOKO	cluster_1	5.882	7.354	7.544	7.617
2	AGUS	cluster_1	8.429	6.327	5.703	9.908
3	SUSI	cluster_1	5.801	7.861	6.490	6.577
4	DYAH	cluster_1	6.022	9.976	5.789	5.717
5	WATI	cluster_2	9.156	5.258	9.607	5.308
6	IKA	cluster_0	8.527	8.702	5.393	7.429
7	EKO	cluster_2	9.894	7.388	9.403	8.735
8	YANTO	cluster_1	6.652	8.094	9.492	9.581
9	WAWAN	cluster_1	8.659	8.319	5.777	9.771
10	MAHMUD	cluster_1	7.259	9.994	5.134	8.818
11	BUDI	cluster_2	8.385	6.488	8.394	5.176
12	SANTI	cluster_3	7.847	6.795	5.072	5.336
13	DIAH	cluster_0	8.117	9.432	5.423	5.090
14	DANI	cluster_1	5.528	9.285	7.287	6.489

Row No.	NAMA	cluster	B.IND	B.ING	MTK	IPA
15	AHMAD	cluster_3	5.568	6.512	6.582	5.266
16	BAYU	cluster_3	5.951	5.382	7.546	6.048
17	RISA	cluster_3	5.450	7.637	7.586	5.660
18	RANI	cluster_0	9.905	7.252	6.230	8.759
19	YANI	cluster_1	7.004	6.673	5.228	9.078
20	RATIH	cluster_2	8.593	5.743	7.517	7.939
21	INDAH	cluster_0	9.775	8.668	6.844	8.079
22	JONO	cluster_3	7.119	7.235	5.044	5.191
23	SARAH	cluster_1	5.314	9.455	5.221	7.919
24	RAMA	cluster_0	8.228	9.268	7.039	5.596
25	BAMBANG	cluster_2	9.471	7.202	8.362	6.383
26	HADI	cluster_0	9.605	8.443	7.412	5.640
27	NANA	cluster_2	8.027	6.525	9.345	7.413
28	FEBRI	cluster_2	6.696	9.079	9.307	6.036

29	DENI	cluster_3	6.610	6.126	6.874	7.240
30	TONI	cluster_2	8.631	7.924	7.999	6.896

# ExampleSet (Fuzzy C-Means)

Row No.	cluster	B.IND	B.ING	МТК	IPA
1	cluster_0	7.935	7.842	7.104	6.959
2	cluster_1	7.239	7.729	6.842	7.238
3	cluster_2	7.854	7.522	7.323	6.910
4	cluster_3	7.390	7.623	6.837	6.972