

LAMPIRAN

Lampiran 1. Data banyaknya kabupaten/kota yang mempunyai sekolah pada tahun 2018 di Jawa Timur.

NO	Kabupaten/Kota	SD/MI	SMP/MTs	SMA	SMK
1	Pacitan	171	96	29	24
2	Ponorogo	304	130	69	38
3	Trenggalek	157	77	33	28
4	Tulungagung	270	98	37	25
5	Blitar	248	114	39	27
6	Kediri	343	130	54	40
7	Malang	390	297	108	101
8	Lumajang	205	148	73	31
9	Jember	248	222	127	114
10	Banyuwangi	217	153	79	63
11	Bondowoso	217	141	71	53
12	Situbondo	136	103	59	36
13	Probolinggo	326	232	124	46
14	Pasuruan	365	207	100	48
15	Sidoarjo	345	153	88	52
16	Mojokerto	302	150	67	53
17	Jombang	306	162	85	48
18	Nganjuk	282	110	53	42
19	Madiun	205	73	29	20
20	Magetan	235	71	27	28
21	Ngawi	217	85	32	33
22	Bojonegoro	428	163	81	49
23	Tuban	326	153	66	34
24	Lamongan	470	217	103	62
25	Gresik	345	178	98	46
26	Bangkalan	273	168	82	45
27	Sampang	186	166	113	60
28	Pamekasan	189	149	103	70
29	Sumenep	331	238	160	55
30	Kota Kediri	43	27	13	14
31	Kota Blitar	21	11	10	10
32	Kota Malang	57	53	33	34
33	Kota Probolinggo	29	22	12	13
34	Kota Pasuruan	33	23	9	12

35	Kota Mojokerto	18	13	9	8
36	Kota Madiun	27	14	10	12
37	Kota Surabaya	154	132	91	50
38	Kota Batu	24	17	9	7



Lampiran 2. Hasil *Clustering* algoritma *Partitioning Around Medoids*(PAM) di *Microsoft Excel*

1. *Cluster 2*

NO	Jarak Medoids1	Jarak Medoids2	K-Medoids1	K-Medoids2
1	168,935	252,757	OK	
2	309,403	144,786		OK
3	149,352	270,287	OK	
4	261,123	198,368		OK
5	246,749	194,139		OK
6	342,993	152,542		OK
7	480,617	108,545		OK
8	233,654	179,223		OK
9	342,891	108,236		OK
10	252,549	163,847		OK
11	242,043	174,155		OK
12	152,581	258,480	OK	
13	390,096	37,921		OK
14	402,918	75,934		OK
15	360,282	112,312		OK
16	316,943	131,294		OK
17	328,643	109,886		OK
18	279,954	174,365		OK
19	190,961	247,966	OK	
20	219,550	235,633	OK	

21	207,552	230,809	OK	
22	437,584	145,983		OK
23	337,162	128,557		OK
24	500,776	151,855		OK
25	372,027	87,869		OK
26	302,614	120,200		OK
27	249,139	168,651		OK
28	239,696	177,649		OK
29	410,116	0,000		OK
30	22,935	388,272	OK	
31	7,416	414,914	OK	
32	60,745	354,783	OK	
33	9,747	401,905	OK	
34	11,916	399,599	OK	
35	7,280	416,658	OK	
36	6,633	408,584	OK	
37	196,718	217,603	OK	
38	0,000	410,116	OK	

2. Cluster 3

NO	Jmedoids1	JMedoids2	JMedoids3	KMedoids1	KMedoids2	KMedoids3
1	78,134	252,757	168,935	OK		
2	152,092	144,786	309,403		OK	
3	82,958	270,287	149,352	OK		
4	134,733	198,368	261,123	OK		
5	111,324	194,139	246,749	OK		
6	192,857	152,542	342,993		OK	
7	292,935	108,545	480,617		OK	
8	59,515	179,223	233,654	OK		
9	149,426	108,236	342,891		OK	
10	68,724	163,847	252,549	OK		
11	66,776	174,155	242,043	OK		
12	48,836	258,480	152,581	OK		
13	201,715	37,921	390,096		OK	
14	224,123	75,934	402,918		OK	
15	192,185	112,312	360,282		OK	
16	151,040	131,294	316,943		OK	
17	155,061	109,886	328,643		OK	
18	135,558	174,365	279,954	OK		
19	104,048	247,966	190,961	OK		
20	121,910	235,633	219,550	OK		
21	99,740	230,809	207,552	OK		
22	275,931	145,983	437,584		OK	

23	175,801	128,557	337,162		OK	
24	327,672	151,855	500,776		OK	
25	196,627	87,869	372,027		OK	
26	124,752	120,200	302,614		OK	
27	52,574	168,651	249,139	OK		
28	45,365	177,649	239,696	OK		
29	217,603	0,000	410,116		OK	
30	175,288	388,272	22,935			OK
31	201,224	414,914	7,416			OK
32	138,816	354,783	60,745			OK
33	187,976	401,905	9,747			OK
34	186,253	399,599	11,916			OK
35	202,842	416,658	7,280			OK
36	195,085	408,584	6,633			OK
37	0,000	217,603	196,718	OK		
38	196,718	410,116	0,000			OK

3. Cluster 4

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4
1	168,935	137,252	252,757	78,134				OK
2	309,403	51,215	144,786	152,092		OK		
3	149,352	156,291	270,287	82,958				OK
4	261,123	85,639	198,368	134,733		OK		
5	246,749	75,591	194,139	111,324		OK		
6	342,993	84,575	152,542	192,857		OK		
7	480,617	184,776	108,545	292,935			OK	
8	233,654	72,808	179,223	59,515				OK
9	342,891	101,622	108,236	149,426		OK		
10	252,549	60,778	163,847	68,724		OK		
11	242,043	63,640	174,155	66,776		OK		
12	152,581	153,636	258,480	48,836				OK
13	390,096	93,113	37,921	201,715			OK	
14	402,918	101,578	75,934	224,123			OK	
15	360,282	74,122	112,312	192,185		OK		
16	316,943	38,131	131,294	151,040		OK		
17	328,643	33,808	109,886	155,061		OK		
18	279,954	65,536	174,365	135,558		OK		
19	190,961	130,702	247,966	104,048				OK
20	219,550	119,025	235,633	121,910		OK		

21	207,552	112,557	230,809	99,740				OK
22	437,584	155,135	145,983	275,931			OK	
23	337,162	58,404	128,557	175,801		OK		
24	500,776	204,793	151,855	327,672			OK	
25	372,027	74,438	87,869	196,627		OK		
26	302,614	0,000	120,200	124,752		OK		
27	249,139	93,590	168,651	52,574				OK
28	239,696	92,103	177,649	45,365				OK
29	410,116	120,200	0,000	217,603			OK	
30	22,935	280,184	388,272	175,288	OK			
31	7,416	307,509	414,914	201,224	OK			
32	60,745	249,806	354,783	138,816	OK			
33	9,747	294,578	401,905	187,976	OK			
34	11,916	291,621	399,599	186,253	OK			
35	7,280	309,432	416,658	202,842	OK			
36	6,633	300,840	408,584	195,085	OK			
37	196,718	124,752	217,603	0,000				OK
38	0,000	302,614	410,116	196,718	OK			

4. Cluster 5

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	Jarak Medoids5	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4	K-Medoids5
1	168,935	48,239	78,134	137,252	252,757		OK			
2	309,403	104,824	152,092	51,215	144,786				OK	
3	149,352	60,745	82,958	156,291	270,287		OK			
4	261,123	55,381	134,733	85,639	198,368		OK			
5	246,749	43,440	111,324	75,591	194,139		OK			
6	342,993	135,772	192,857	84,575	152,542				OK	
7	480,617	292,015	292,935	184,776	108,545					OK
8	233,654	76,145	59,515	72,808	179,223			OK		
9	342,891	187,926	149,426	101,622	108,236				OK	
10	252,549	87,937	68,724	60,778	163,847				OK	
11	242,043	71,113	66,776	63,640	174,155				OK	
12	152,581	87,310	48,836	153,636	258,480			OK		
13	390,096	205,239	201,715	93,113	37,921					OK
14	402,918	204,051	224,123	101,578	75,934					OK
15	360,282	156,541	192,185	74,122	112,312				OK	
16	316,943	114,346	151,040	38,131	131,294				OK	
17	328,643	129,938	155,061	33,808	109,886				OK	
18	279,954	73,294	135,558	65,536	174,365				OK	
19	190,961	21,587	104,048	130,702	247,966		OK			
20	219,550	23,875	121,910	119,025	235,633		OK			
21	207,552	0,000	99,740	112,557	230,809		OK			
22	437,584	230,786	275,931	155,135	145,983					OK

23	337,162	132,898	175,801	58,404	128,557				OK	
24	500,776	295,491	327,672	204,793	151,855					OK
25	372,027	171,924	196,627	74,438	87,869				OK	
26	302,614	112,557	124,752	0,000	120,200				OK	
27	249,139	121,705	52,574	93,590	168,651			OK		
28	239,696	106,254	45,365	92,103	177,649			OK		
29	410,116	230,809	217,603	120,200	0,000					OK
30	22,935	185,370	175,288	280,184	388,272	OK				
31	7,416	211,908	201,224	307,509	414,914	OK				
32	60,745	163,175	138,816	249,806	354,783	OK				
33	9,747	200,282	187,976	294,578	401,905	OK				
34	11,916	196,647	186,253	291,621	399,599	OK				
35	7,280	214,334	202,842	309,432	416,658	OK				
36	6,633	205,100	195,085	300,840	408,584	OK				
37	196,718	99,740	0,000	124,752	217,603			OK		
38	0,000	207,552	196,718	302,614	410,116	OK				

5. Cluster 6

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	Jarak Medoids5	Jarak Medoids6	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4	K-Medoids5	K-Medoids6
1	48,239	168,935	333,110	137,252	252,757	78,134	OK					
2	104,824	309,403	191,982	51,215	144,786	152,092				OK		
3	60,745	149,352	351,603	156,291	270,287	82,958	OK					
4	55,381	261,123	244,716	85,639	198,368	134,733	OK					
5	43,440	246,749	255,370	75,591	194,139	111,324	OK					
6	135,772	342,993	163,043	84,575	152,542	192,857				OK		
7	292,015	480,617	119,775	184,776	108,545	292,935					OK	
8	76,145	233,654	277,213	72,808	179,223	59,515						OK
9	187,926	342,891	229,323	101,622	108,236	149,426				OK		
10	87,937	252,549	262,073	60,778	163,847	68,724				OK		
11	71,113	242,043	266,252	63,640	174,155	66,776				OK		
12	87,310	152,581	356,601	153,636	258,480	48,836						OK
13	205,239	390,096	147,167	93,113	37,921	201,715					OK	
14	204,051	402,918	106,442	101,578	75,934	224,123					OK	
15	156,541	360,282	141,584	74,122	112,312	192,185				OK		
16	114,346	316,943	184,635	38,131	131,294	151,040				OK		
17	129,938	328,643	174,473	33,808	109,886	155,061				OK		
18	73,294	279,954	222,919	65,536	174,365	135,558				OK		
19	21,587	190,961	313,370	130,702	247,966	104,048	OK					
20	23,875	219,550	288,917	119,025	235,633	121,910	OK					
21	0,000	207,552	295,491	112,557	230,809	99,740	OK					
22	230,786	437,584	73,027	155,135	145,983	275,931			OK			

23	132,898	337,162	164,271	58,404	128,557	175,801				OK		
24	295,491	500,776	0,000	204,793	151,855	327,672			OK			
25	171,924	372,027	132,011	74,438	87,869	196,627				OK		
26	112,557	302,614	204,793	0,000	120,200	124,752				OK		
27	121,705	249,139	288,723	93,590	168,651	52,574						OK
28	106,254	239,696	289,221	92,103	177,649	45,365						OK
29	230,809	410,116	151,855	120,200	0,000	217,603					OK	
30	185,370	22,935	478,365	280,184	388,272	175,288		OK				
31	211,908	7,416	505,361	307,509	414,914	201,224		OK				
32	163,175	60,745	450,721	249,806	354,783	138,816		OK				
33	200,282	9,747	493,141	294,578	401,905	187,976		OK				
34	196,647	11,916	489,838	291,621	399,599	186,253		OK				
35	214,334	7,280	507,614	309,432	416,658	202,842		OK				
36	205,100	6,633	498,605	300,840	408,584	195,085		OK				
37	99,740	196,718	327,672	124,752	217,603	0,000						OK
38	207,552	0,000	500,776	302,614	410,116	196,718		OK				

6. Cluster 7

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	Jarak Medoids5	Jarak Medoids6	Jarak Medoids7	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4	K-Medoids5	K-Medoids6	K-Medoids7
1	48,239	168,935	78,134	333,110	205,536	252,757	137,252	OK						
2	104,824	309,403	152,092	191,982	69,929	144,786	51,215							OK
3	60,745	149,352	82,958	351,603	223,817	270,287	156,291	OK						
4	55,381	261,123	134,733	244,716	127,228	198,368	85,639	OK						
5	43,440	246,749	111,324	255,370	131,708	194,139	75,591	OK						
6	135,772	342,993	192,857	163,043	65,422	152,542	84,575					OK		
7	292,015	480,617	292,935	119,775	138,964	108,545	184,776						OK	
8	76,145	233,654	59,515	277,213	146,116	179,223	72,808			OK				
9	187,926	342,891	149,426	229,323	129,653	108,236	101,622							OK
10	87,937	252,549	68,724	262,073	132,887	163,847	60,778							OK
11	71,113	242,043	66,776	266,252	136,129	174,155	63,640							OK
12	87,310	152,581	48,836	356,601	225,670	258,480	153,636			OK				
13	205,239	390,096	201,715	147,167	62,873	37,921	93,113						OK	
14	204,051	402,918	224,123	106,442	35,341	75,934	101,578					OK		
15	156,541	360,282	192,185	141,584	27,586	112,312	74,122					OK		
16	114,346	316,943	151,040	184,635	60,357	131,294	38,131							OK
17	129,938	328,643	155,061	174,473	44,159	109,886	33,808							OK
18	73,294	279,954	135,558	222,919	103,121	174,365	65,536							OK
19	21,587	190,961	104,048	313,370	189,900	247,966	130,702	OK						
20	23,875	219,550	121,910	288,917	170,041	235,633	119,025	OK						
21	0,000	207,552	99,740	295,491	171,924	230,809	112,557	OK						
22	230,786	437,584	275,931	73,027	86,093	145,983	155,135				OK			

23	132,898	337,162	175,801	164,271	46,411	128,557	58,404					OK		
24	295,491	500,776	327,672	0,000	132,011	151,855	204,793					OK		
25	171,924	372,027	196,627	132,011	0,000	87,869	74,438					OK		
26	112,557	302,614	124,752	204,793	74,438	120,200	0,000							OK
27	121,705	249,139	52,574	288,723	160,767	168,651	93,590					OK		
28	106,254	239,696	45,365	289,221	160,555	177,649	92,103					OK		
29	230,809	410,116	217,603	151,855	87,869	0,000	120,200							OK
30	185,370	22,935	175,288	478,365	349,648	388,272	280,184					OK		
31	211,908	7,416	201,224	505,361	376,703	414,914	307,509					OK		
32	163,175	60,745	138,816	450,721	320,840	354,783	249,806					OK		
33	200,282	9,747	187,976	493,141	364,249	401,905	294,578					OK		
34	196,647	11,916	186,253	489,838	361,173	399,599	291,621					OK		
35	214,334	7,280	202,842	507,614	378,839	416,658	309,432					OK		
36	205,100	6,633	195,085	498,605	370,027	408,584	300,840					OK		
37	99,740	196,718	0,000	327,672	196,627	217,603	124,752					OK		
38	207,552	0,000	196,718	500,776	372,027	410,116	302,614					OK		

7. Cluster 8

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	Jarak Medoids5	Jarak Medoids6	Jarak Medoids7	Jarak Medoids8	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4	K-Medoids5	K-Medoids6	K-Medoids7	K-Medoids8
1	168,935	78,134	48,239	103,562	205,536	252,757	333,110	137,252			OK					
2	309,403	152,092	104,824	125,563	69,929	144,786	191,982	51,215								OK
3	149,352	82,958	60,745	113,455	223,817	270,287	351,603	156,291			OK					
4	261,123	134,733	55,381	124,672	127,228	198,368	244,716	85,639			OK					
5	246,749	111,324	43,440	103,204	131,708	194,139	255,370	75,591			OK					
6	342,993	192,857	135,772	165,463	65,422	152,542	163,043	84,575					OK			
7	480,617	292,935	292,015	251,577	138,964	108,545	119,775	184,776						OK		
8	233,654	59,515	76,145	51,749	146,116	179,223	277,213	72,808				OK				
9	342,891	149,426	187,926	106,405	129,653	108,236	229,323	101,622								OK
10	252,549	68,724	87,937	37,749	132,887	163,847	262,073	60,778				OK				
11	242,043	66,776	71,113	46,487	136,129	174,155	266,252	63,640				OK				
12	152,581	48,836	87,310	89,538	225,670	258,480	356,601	153,636		OK						
13	390,096	201,715	205,239	163,325	62,873	37,921	147,167	93,113						OK		
14	402,918	224,123	204,051	186,636	35,341	75,934	106,442	101,578					OK			
15	360,282	192,185	156,541	157,801	27,586	112,312	141,584	74,122					OK			
16	316,943	151,040	114,346	119,812	60,357	131,294	184,635	38,131								OK
17	328,643	155,061	129,938	121,103	44,159	109,886	174,473	33,808								OK
18	279,954	135,558	73,294	115,991	103,121	174,365	222,919	65,536								OK
19	190,961	104,048	21,587	118,355	189,900	247,966	313,370	130,702			OK					
20	219,550	121,910	23,875	125,459	170,041	235,633	288,917	119,025			OK					

21	207,552	99,740	0,000	106,254	171,924	230,809	295,491	112,557			OK					
22	437,584	275,931	230,786	241,334	86,093	145,983	73,027	155,135								OK
23	337,162	175,801	132,898	146,458	46,411	128,557	164,271	58,404					OK			
24	500,776	327,672	295,491	289,221	132,011	151,855	0,000	204,793								OK
25	372,027	196,627	171,924	160,555	0,000	87,869	132,011	74,438					OK			
26	302,614	124,752	112,557	92,103	74,438	120,200	204,793	0,000								OK
27	249,139	52,574	121,705	22,316	160,767	168,651	288,723	93,590			OK					
28	239,696	45,365	106,254	0,000	160,555	177,649	289,221	92,103			OK					
29	410,116	217,603	230,809	177,649	87,869	0,000	151,855	120,200						OK		
30	22,935	175,288	185,370	217,798	349,648	388,272	478,365	280,184	OK							
31	7,416	201,224	211,908	243,961	376,703	414,914	505,361	307,509	OK							
32	60,745	138,816	163,175	181,207	320,840	354,783	450,721	249,806	OK							
33	9,747	187,976	200,282	230,779	364,249	401,905	493,141	294,578	OK							
34	11,916	186,253	196,647	228,937	361,173	399,599	489,838	291,621	OK							
35	7,280	202,842	214,334	245,799	378,839	416,658	507,614	309,432	OK							
36	6,633	195,085	205,100	237,659	370,027	408,584	498,605	300,840	OK							
37	196,718	0,000	99,740	45,365	196,627	217,603	327,672	124,752		OK						
38	0,000	196,718	207,552	239,696	372,027	410,116	500,776	302,614	OK							

8. Cluster 9

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	Jarak Medoids5	Jarak Medoids6	Jarak Medoids7	Jarak Medoids8	Jarak Medoids9	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4	K-Medoids5	K-Medoids6	K-Medoids7	K-Medoids8	K-Medoids9
1	115,832	168,935	48,239	205,536	333,110	137,252	82,134	78,134	252,757			OK						
2	34,000	309,403	104,824	69,929	191,982	51,215	88,989	152,092	144,786	OK								
3	131,567	149,352	60,745	223,817	351,603	156,291	98,818	82,958	270,287			OK						
4	28,862	261,123	55,381	127,228	244,716	85,639	81,228	134,733	198,368	OK								
5	39,912	246,749	43,440	131,708	255,370	75,591	58,224	111,324	194,139	OK								
6	64,234	342,993	135,772	65,422	163,043	84,575	128,277	192,857	152,542	OK								
7	230,519	480,617	292,015	138,964	119,775	184,776	240,703	292,935	108,545									OK
8	88,848	233,654	76,145	146,116	277,213	72,808	26,096	59,515	179,223							OK		
9	156,077	342,891	187,926	129,653	229,323	101,622	119,912	149,426	108,236						OK			
10	84,800	252,549	87,937	132,887	262,073	60,778	17,550	68,724	163,847							OK		
11	75,040	242,043	71,113	136,129	266,252	63,640	0,000	66,776	174,155							OK		
12	146,414	152,581	87,310	225,670	356,601	153,636	91,859	48,836	258,480								OK	
13	147,909	390,096	205,239	62,873	147,167	93,113	151,723	201,715	37,921									OK
14	136,173	402,918	204,051	35,341	106,442	101,578	164,700	224,123	75,934				OK					
15	84,516	360,282	156,541	27,586	141,584	74,122	129,684	192,185	112,312				OK					
16	48,135	316,943	114,346	60,357	184,635	38,131	85,569	151,040	131,294						OK			
17	65,879	328,643	129,938	44,159	174,473	33,808	92,644	155,061	109,886						OK			
18	0,000	279,954	73,294	103,121	222,919	65,536	75,040	135,558	174,365	OK								
19	91,422	190,961	21,587	189,900	313,370	130,702	87,298	104,048	247,966			OK						
20	67,838	219,550	23,875	170,041	288,917	119,025	88,233	121,910	235,633			OK						
21	73,294	207,552	0,000	171,924	295,491	112,557	71,113	99,740	230,809			OK						
22	157,981	437,584	230,786	86,093	73,027	155,135	212,417	275,931	145,983					OK				

23	63,388	337,162	132,898	46,411	164,271	58,404	111,405	175,801	128,557				OK				
24	222,919	500,776	295,491	132,011	0,000	204,793	266,252	327,672	151,855					OK			
25	103,121	372,027	171,924	0,000	132,011	74,438	136,129	196,627	87,869				OK				
26	65,536	302,614	112,557	74,438	204,793	0,000	63,640	124,752	120,200						OK		
27	127,577	249,139	121,705	160,767	288,723	93,590	58,301	52,574	168,651								OK
28	115,991	239,696	106,254	160,555	289,221	92,103	46,487	45,365	177,649								OK
29	174,365	410,116	230,809	87,869	151,855	120,200	174,155	217,603	0,000								OK
30	257,670	22,935	185,370	349,648	478,365	280,184	219,447	175,288	388,272		OK						
31	284,245	7,416	211,908	376,703	505,361	307,509	246,751	201,224	414,914		OK						
32	233,105	60,745	163,175	320,840	450,721	249,806	187,481	138,816	354,783		OK						
33	272,534	9,747	200,282	364,249	493,141	294,578	233,636	187,976	401,905		OK						
34	269,084	11,916	196,647	361,173	489,838	291,621	230,879	186,253	399,599		OK						
35	286,700	7,280	214,334	378,839	507,614	309,432	248,705	202,842	416,658		OK						
36	277,471	6,633	205,100	370,027	498,605	300,840	240,065	195,085	408,584		OK						
37	135,558	196,718	99,740	196,627	327,672	124,752	66,776	0,000	217,603								OK
38	279,954	0,000	207,552	372,027	500,776	302,614	242,043	196,718	410,116		OK						

9. Cluster 10

NO	Jarak Medoids1	Jarak Medoids2	Jarak Medoids3	Jarak Medoids4	Jarak Medoids5	Jarak Medoids6	Jarak Medoids7	Jarak Medoids8	Jarak Medoids9	Jarak Medoids10	K-Medoids1	K-Medoids2	K-Medoids3	K-Medoids4	K-Medoids5	K-Medoids6	K-Medoids7	K-Medoids8	K-Medoids9
1	115,832	168,935	48,239	205,536	271,785	137,252	333,110	82,134	78,134	252,757			OK						
2	34,000	309,403	104,824	69,929	129,345	51,215	191,982	88,989	152,092	144,786	OK								
3	131,567	149,352	60,745	223,817	289,106	156,291	351,603	98,818	82,958	270,287			OK						
4	28,862	261,123	55,381	127,228	178,048	85,639	244,716	81,228	134,733	198,368	OK								
5	39,912	246,749	43,440	131,708	192,481	75,591	255,370	58,224	111,324	194,139	OK								
6	64,234	342,993	135,772	65,422	95,520	84,575	163,043	128,277	192,857	152,542	OK								
7	230,519	480,617	292,015	138,964	151,106	184,776	119,775	240,703	292,935	108,545									
8	88,848	233,654	76,145	146,116	224,370	72,808	277,213	26,096	59,515	179,223								OK	
9	156,077	342,891	187,926	129,653	205,480	101,622	229,323	119,912	149,426	108,236						OK			
10	84,800	252,549	87,937	132,887	211,710	60,778	262,073	17,550	68,724	163,847								OK	
11	75,040	242,043	71,113	136,129	212,417	63,640	266,252	0,000	66,776	174,155								OK	
12	146,414	152,581	87,310	225,670	299,194	153,636	356,601	91,859	48,836	258,480									OK
13	147,909	390,096	205,239	62,873	130,472	93,113	147,167	151,723	201,715	37,921									
14	136,173	402,918	204,051	35,341	79,164	101,578	106,442	164,700	224,123	75,934				OK					
15	84,516	360,282	156,541	27,586	83,946	74,122	141,584	129,684	192,185	112,312				OK					
16	48,135	316,943	114,346	60,357	127,503	38,131	184,635	85,569	151,040	131,294						OK			
17	65,879	328,643	129,938	44,159	122,074	33,808	174,473	92,644	155,061	109,886						OK			
18	0,000	279,954	73,294	103,121	157,981	65,536	222,919	75,040	135,558	174,365	OK								
19	91,422	190,961	21,587	189,900	247,738	130,702	313,370	87,298	104,048	247,966			OK						

20	67,838	219,550	23,875	170,041	221,517	119,025	288,917	88,233	121,910	235,633			OK					
21	73,294	207,552	0,000	171,924	230,786	112,557	295,491	71,113	99,740	230,809			OK					
22	157,981	437,584	230,786	86,093	0,000	155,135	73,027	212,417	275,931	145,983				OK				
23	63,388	337,162	132,898	46,411	104,661	58,404	164,271	111,405	175,801	128,557			OK					
24	222,919	500,776	295,491	132,011	73,027	204,793	0,000	266,252	327,672	151,855					OK			
25	103,121	372,027	171,924	0,000	86,093	74,438	132,011	136,129	196,627	87,869			OK					
26	65,536	302,614	112,557	74,438	155,135	0,000	204,793	63,640	124,752	120,200				OK				
27	127,577	249,139	121,705	160,767	244,373	93,590	288,723	58,301	52,574	168,651								OK
28	115,991	239,696	106,254	160,555	241,334	92,103	289,221	46,487	45,365	177,649								OK
29	174,365	410,116	230,809	87,869	145,983	120,200	151,855	174,155	217,603	0,000								
30	257,670	22,935	185,370	349,648	415,415	280,184	478,365	219,447	175,288	388,272		OK						
31	284,245	7,416	211,908	376,703	441,945	307,509	505,361	246,751	201,224	414,914		OK						
32	233,105	60,745	163,175	320,840	390,218	249,806	450,721	187,481	138,816	354,783		OK						
33	272,534	9,747	200,282	364,249	430,278	294,578	493,141	233,636	187,976	401,905		OK						
34	269,084	11,916	196,647	361,173	426,823	291,621	489,838	230,879	186,253	399,599		OK						
35	286,700	7,280	214,334	378,839	444,370	309,432	507,614	248,705	202,842	416,658		OK						
36	277,471	6,633	205,100	370,027	435,215	300,840	498,605	240,065	195,085	408,584		OK						
37	135,558	196,718	99,740	196,627	275,931	124,752	327,672	66,776	0,000	217,603								OK
38	279,954	0,000	207,552	372,027	437,584	302,614	500,776	242,043	196,718	410,116		OK						

Catatan: Jmedoid = Jarak medoid
Kmedoid = Keanggotaan Medoid

Lampiran 3. Penerapan Metode *Davies bouldin index*

1. Cluster 2

	C1	C2					
SSW	94,154	132,448					
	C1, C2						
SSB	410,115		RATIO	1	2	MAX	DBI
RATIO	0,552		1	0	0,552	0,552	0,552
			2	0,552	0	0,552	

2. Cluster 3

	C1	C2	C3						
SSW	80,68	107,73	15,834						
	C1, C2	C1, C3	C2 C3	RATIO					
SSB	217,6	196,72	410,12		1	2	3	MAX	DBI
RATIO	0,741			1	0	0,8658	0,4906	0,8658	0,740
				2	0,8658	0	0,3013	0,8658	
				3	0,4906	0,3013	0	0,4906	

3. Cluster 4

SSW			
C1	C2	C3	C4
15,834	65,768	86,706	63,463

SSB		RATIO
C1, C2	302,613	0,994
C1, C3	410,115	
C1, C4	196,718	
C2, C3	120,199	
C2, C4	124,751	
C3, C4	217,602	

RATIO	1	2	3	4	MAX	DBI
1	0	0,269	0,250	0,403	0,403	0,994
2	0,269	0	1,268	1,035	1,268	
3	0,250	1,268	0	0,690	1,268	
4	0,403	1,035	0,690	0	1,035	

4. Cluster 5

SSW				
C1	C2	C3	C4	C5
15,8341	36,18088	41,25802	58,85579	86,70636

SSB		RATIO
C1, C2	207,5524	0,872
C1, C3	196,7181	
C1, C4	302,6136	
C1, C5	410,1158	
C2, C3	99,73966	
C2, C4	112,5567	
C2, C5	230,8094	
C3, C4	124,7518	
C3, C5	217,6028	
C4, C5	120,1998	

RATIO	1	2	3	4	5	MAX	DBI
1	0	0,250611	0,290223	0,246816	0,250028	0,290223	0,872
2	0,250611	0	0,77641	0,844345	0,532419	0,844345	
3	0,290223	0,77641	0	0,802504	0,588064	0,802504	
4	0,246816	0,844345	0,802504	0	1,211001	1,211001	
5	0,250028	0,532419	0,588064	1,211001	0	1,211001	

1. Cluster 6

SSW					
C1	C2	C3	C4	C5	C6
36,181	15,834	36,514	58,856	55,600	41,258

SSB	RATIO
C1, C2 207,55240 3	0,741
C1, C3 295,49111 7	
C1, C4 112,55665 2	
C1, C5 230,80944 5	
C1, C6 99,739661 1	
C2, C3 500,77639 7	
C2, C4 302,61361 5	
C2, C5 410,11583 7	
C2, C6 196,71807 2	
C3, C4 204,79257 8	
C3, C5 151,85519 4	
C3, C6 327,67209 2	
C4, C5 120,19983 4	
C4, C6 124,75175 3	
C5, C6 217,60284 9	

RATIO	1	2	3	4	5	6	MAX	DBI
1	0,000	0,251	0,246	0,844	0,398	0,776	0,844	0,741
2	0,251	0,000	0,105	0,247	0,174	0,290	0,290	
3	0,246	0,105	0,000	0,466	0,607	0,237	0,607	
4	0,844	0,380	0,466	0,000	0,952	0,803	0,952	
5	0,398	0,174	0,607	0,952	0,000	0,445	0,952	
6	0,776	0,290	0,237	0,803	0,445	0,000	0,803	

2. Cluster 7

SSW						
C1	C2	C3	C4	C5	C6	C7
36,18088	15,83409846	41,25802	36,513696	34,95207	48,82196	51,84136

SSB		RATIO
C1, C2	207,552	0,814
C1, C3	99,740	
C1, C4	295,491	
C1, C5	171,924	
C1, C6	230,809	
C1, C7	112,557	
C2, C3	196,718	
C2, C4	500,776	
C2, C5	372,027	
C2, C6	410,116	
C2, C7	302,614	
C3, C4	327,672	
C3, C5	196,627	
C3, C6	217,603	
C3, C7	124,752	
C4, C5	132,011	
C4, C6	151,855	
C4, C7	204,793	
C5, C6	87,869	
C5, C7	74,438	
C6, C7	120,200	

RATIO	1	2	3	4	5	6	7	MAX	DBI
1	0,000	0,251	0,776	0,246	0,414	0,368	0,782	0,782	0,814
2	0,251	0,000	0,290	0,105	0,137	0,158	0,224	0,290	
3	0,776	0,290	0,000	0,237	0,388	0,414	0,746	0,776	
4	0,246	0,105	0,237	0,000	0,541	0,562	0,431	0,562	
5	0,414	0,137	0,388	0,541	0,000	0,953	1,166	1,166	
6	0,368	0,158	0,414	0,562	0,953	0,000	0,837	0,953	
7	0,782	0,224	0,746	0,431	1,166	0,837	0,000	1,166	

3. Cluster 8

SSW							
C1	C2	C3	C4	C5	C6	C7	C8
15,834	24,418	36,181	31,660	34,952	48,822	36,514	48,385

SSB		RATIO
C1, C2	196,718	0,904
C1, C3	207,552	
C1, C4	239,696	
C1, C5	372,027	
C1, C6	410,116	
C1, C7	500,776	
C1, C8	302,614	
C2, C3	99,740	
C2, C4	45,365	
C2, C5	196,627	
C2, C6	217,603	
C2, C7	327,672	
C2, C8	124,752	
C3, C4	106,254	
C3, C5	171,924	
C3, C6	230,809	
C3, C7	295,491	
C3, C8	112,557	
C4, C5	160,555	
C4, C6	177,649	
C4, C7	289,221	
C4, C8	92,103	
C5, C6	87,869	
C5, C7	132,011	
C5, C8	74,438	
C6, C7	151,855	
C6, C8	120,200	
C7, C8	204,793	

RATIO	1	2	3	4	5	6	7	8	MAX	DBI
1	0,0000	0,2046	0,2506	0,1981	0,1365	0,1577	0,1045	0,2122	0,2506	0,904
2	0,2046	0,0000	0,6076	1,2362	0,3019	0,3366	0,1860	0,5836	1,2362	
3	0,2506	0,6076	0,0000	0,6385	0,4137	0,3683	0,2460	0,7513	0,7513	
4	0,1981	1,2362	0,6385	0,0000	0,4149	0,4530	0,2357	0,8691	1,2362	
5	0,1365	0,3019	0,4137	0,4149	0,0000	0,9534	0,5414	1,1196	1,1196	
6	0,1577	0,3366	0,3683	0,4530	0,9534	0,0000	0,5620	0,8087	0,9534	
7	0,1045	0,1860	0,2460	0,2357	0,5414	0,5620	0,0000	0,4146	0,5620	
8	0,2122	0,5836	0,7513	0,8691	1,1196	0,8087	0,4146	0,0000	1,1196	

4. Cluster 9

SSW								
C1	C2	C3	C4	C5	C6	C7	C8	C9
33,402	15,834	30,889	27,335	36,514	43,390	14,549	36,694	48,822

SSB	RATIO
C1, C2	279,954
C1, C3	73,294
C1, C4	103,121
C1, C5	222,919
C1, C6	65,536
C1, C7	75,040
C1, C8	135,558
C1, C9	174,365
C2, C3	207,552
C2, C4	372,027
C2, C5	500,776
C2, C6	302,614
C2, C7	242,043
C2, C8	196,718
C2, C9	410,116
C3, C4	171,924
C3, C5	295,491
C3, C6	112,557
C3, C7	71,113
C3, C8	99,740

0,838

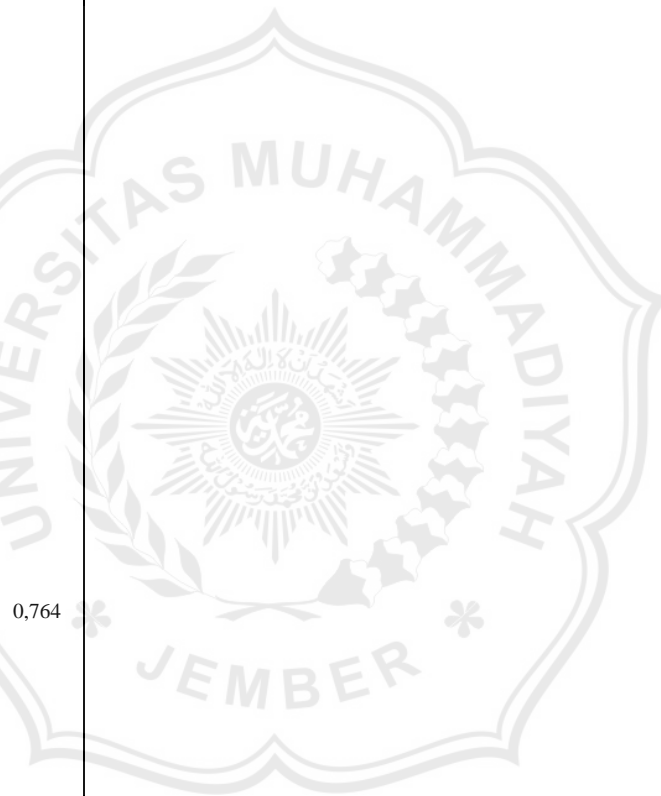
C3, C9	230,809
C4, C5	132,011
C4, C6	74,438
C4, C7	136,129
C4, C8	196,627
C4, C9	87,869
C5, C6	204,793
C5, C7	266,192
C5, C8	327,672
C5, C9	151,855
C6, C7	63,640
C6, C8	124,752
C6, C9	120,200
C7, C8	66,776
C7, C9	174,155
C8, C9	217,603

RATIO	1	2	3	4	5	6	7	8	9	MAX	DBI
1	0,000	0,176	0,877	0,589	0,314	1,172	0,639	0,517	0,472	1,172	0,838
2	0,176	0,000	0,225	0,116	0,105	0,196	0,126	0,267	0,158	0,267	
3	0,877	0,225	0,000	0,339	0,228	0,660	0,639	0,678	0,345	0,877	
4	0,589	0,116	0,339	0,000	0,484	0,950	0,308	0,326	0,867	0,950	
5	0,314	0,105	0,228	0,484	0,000	0,390	0,192	0,223	0,562	0,562	
6	1,172	0,196	0,660	0,950	0,390	0,000	0,910	0,642	0,767	1,172	
7	0,639	0,126	0,639	0,308	0,192	0,910	0,000	0,767	0,364	0,910	
8	0,517	0,267	0,678	0,326	0,223	0,642	0,767	0,000	0,393	0,767	
9	0,472	0,158	0,345	0,867	0,562	0,767	0,364	0,393	0,000	0,867	

5. Cluster 10

SSW									
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
33,402	15,834	30,889	27,335	0,000	43,390	0,000	14,549	36,694	48,822

SSB	RATIO
C1, C2	279,954
C1, C3	73,294
C1, C4	103,121
C1, C5	157,981
C1, C6	65,536
C1, C7	222,919
C1, C8	75,040
C1, C9	135,558
C1, C10	174,365
C2, C3	207,552
C2, C4	372,027
C2, C5	437,584
C2, C6	302,614
C2, C7	500,776
C2, C8	242,043
C2, C9	196,718
C2, C10	410,116
C3, C4	171,924
C3, C5	437,584
C3, C6	302,614
C3, C7	500,776
C3, C8	242,043
C3, C9	196,718
C3, C10	410,116
C4, C5	86,093
C4, C6	74,438
C4, C7	132,011
C4, C8	136,129
C4, C9	196,627
C4, C10	87,869
C5, C6	155,135



C5, C7	73,027
C5, C8	212,417
C5, C9	275,931
C5, C10	145,983
C6, C7	204,793
C6, C8	63,640
C6, C9	124,752
C6, C10	120,200
C7, C8	266,252
C7, C9	327,672
C7, C10	151,855
C8, C9	66,776
C8, C10	174,155
C9, C10	217,603

RATIO	1	2	3	4	5	6	7	8	9	10	MAX	DBI
1	0,000	0,176	0,877	0,589	0,211	1,172	0,150	0,639	0,517	0,472	1,172	0,764
2	0,176	0,000	0,225	0,116	0,036	0,196	0,032	0,126	0,267	0,158	0,267	
3	0,877	0,225	0,000	0,339	0,071	0,245	0,062	0,188	0,344	0,194	0,877	
4	0,589	0,116	0,339	0,000	0,318	0,950	0,207	0,308	0,326	0,867	0,950	
5	0,211	0,036	0,071	0,318	0,000	0,280	0,000	0,068	0,133	0,334	0,334	
6	1,172	0,196	0,245	0,950	0,280	0,000	0,212	0,910	0,642	0,767	1,172	
7	0,150	0,032	0,062	0,207	0,000	0,212	0,000	0,055	0,112	0,322	0,322	
8	0,639	0,126	0,188	0,308	0,068	0,910	0,055	0,000	0,767	0,364	0,910	
9	0,517	0,267	0,344	0,326	0,133	0,642	0,112	0,767	0,000	0,393	0,767	
10	0,472	0,158	0,194	0,867	0,334	0,767	0,322	0,364	0,393	0,000	0,867	



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**DAFTAR REVISI PENGUJI 1
SIDANG TUGAS AKHIR**

Nama Mahasiswa : **MUHAMMAD FIKRI**
 Nomor Induk Mahasiswa : **1610651074**
 Judul Tugas Akhir : **PENGELOMPOKKAN KABUPATEN/KOTA DI JAWA TIMUR BERDASARKAN BANYAKNYA SEKOLAH MENGGUNAKAN ALGORITMA PARTITIONING AROUND MEDOIDS (PAM) DAN METODE DAVIES BOULDIN INDEX**
 Hari / Tanggal : **Jumat / 29 Januari 2021**
 Jam : **13:00 WIB**
 Tempat : **zoom meeting**

Bab/Halaman	Uraian	Keterangan
1	Perbaikan Latar belakang	
1	Rumusan masalah nomer 1	

Dosen Penguji 1

RENI UMILASARI, S.Pd, M.Si

NB : Untuk Mahasiswa



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DAFTAR REVISI PENGUJI 2
SIDANG TUGAS AKHIR

Nama Mahasiswa : MUHAMMAD FIKRI
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 Judul Tugas Akhir : PENGELOMPOKKAN KABUPATEN/KOTA DI JAWA TIMUR BERDASARKAN BANYAKNYA SEKOLAH MENGGUNAKAN ALGORITMA PARTITIONING AROUND MEDOIDS (PAM) DAN METODE DAVIES BOULDIN INDEX
 Hari / Tanggal : Jumat / 29 Januari 2021
 Jam : 13:00 WIB
 Tempat : zoom meeting

Bab/Halaman	Uraian	Keterangan
Bab 1 halaman 5-6	Penulisan Sitasi	
Bab 1 halaman 8	Penambahan dasar teori tentang <i>RapidMiner</i>	
Bab 4	Penggantian diagram menggunakan plot beserta keterangan	
Bab 5	Kesimpulan karakteristik <i>cluster</i>	

Dosen Penguji 2

ROSITA YANUARTI, S.Kom., M. Cs

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