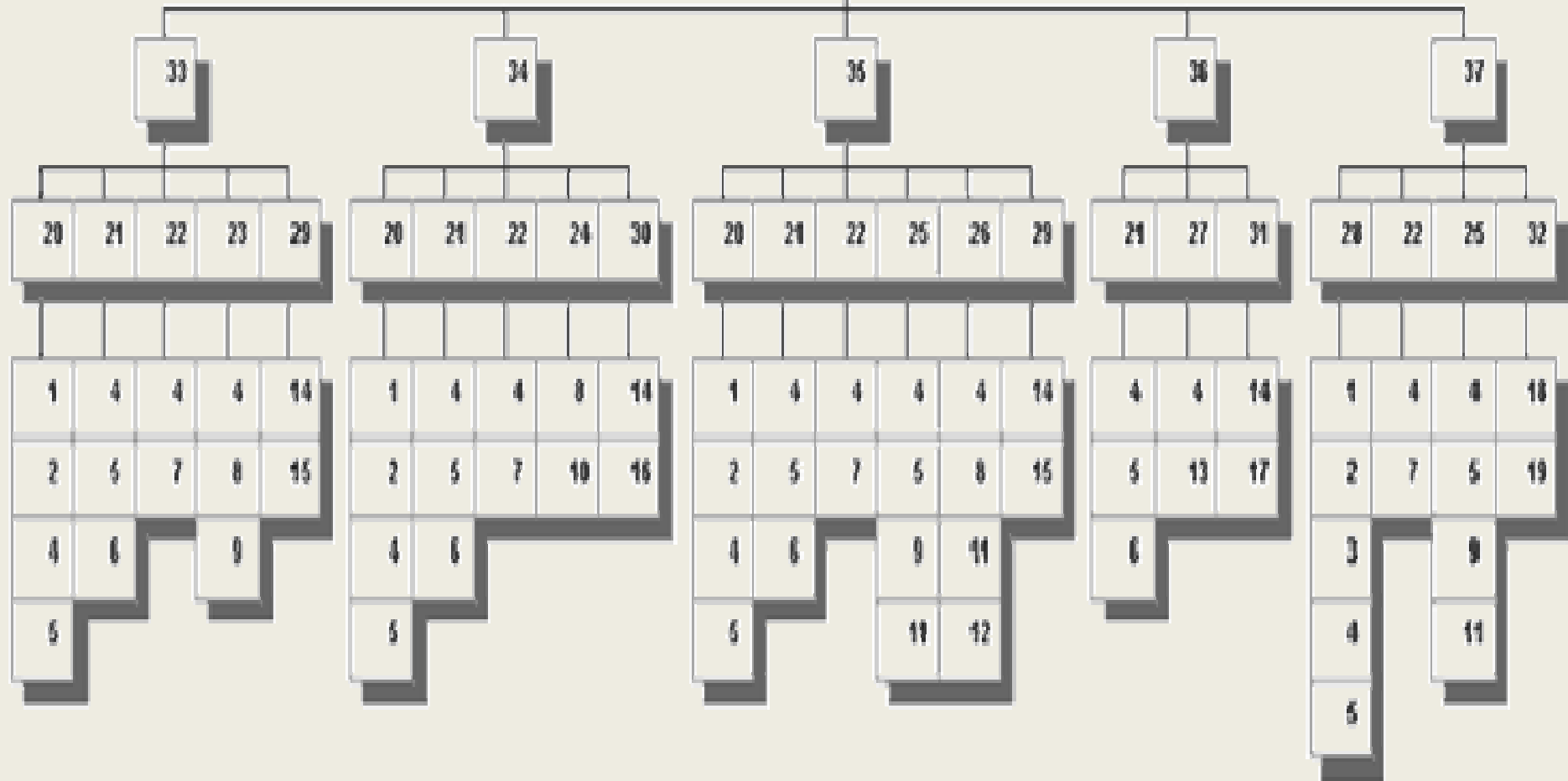


Studi kasus

Aplikasi Data Mining
untuk mendeteksi
infeksi sistem Gastro Usus

Indeksi Sistem Cuscat-nara



Keterangan gambar

1. Buang air besar (lebih dari 2 kali)
2. Berak encer
3. Berak berdarah
4. Lesu dan tidak bergairah
5. Tidak selera makan
6. Merasa mual dan sering muntah (lebih dari 1 kali)
7. Merasa sakit di bagian perut
8. Tekanan darah rendah
9. Pusing
10. Pingsan
11. Suhu badan tinggi
12. Luka di bagian tertentu
13. Tidak dapat menggerakkan anggota badan tertentu
14. Memakan sesuatu
15. Memakan daging
16. Memakan jamur
17. Memakan makanan kaleng
18. Membeli susu
19. Meminum susu
20. Mencret
21. Muntah
22. Sakit perut
23. Darah rendah
24. Koma
25. Demam
26. Septicaemia
27. Lumpuh
28. Mencret berdarah
29. Makan daging
30. Makan jamur
31. Makan makanan kaleng
32. Minum susu
33. Keracunan *Staphylococcus aureus*
34. Keracunan jamur beracun
35. Keracunan *Salmonellae*
36. Keracunan *Clostridium botulinum*
37. Keracunan *Campylobacter*

	20	21	22	23	24	25	26	27	28	29	30	31	32
33	1	1	1	1	0	0	0	0	0	1	0	0	0
34	1	1	1	0	1	0	0	0	0	0	1	0	0
35	1	1	1	0	0	1	1	0	0	1	0	0	0
36	0	1	0	0	0	0	0	1	0	0	0	1	0
37	0	0	1	0	0	1	0	0	1	0	0	0	1

Correlation Computing

- Inner-product

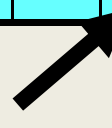
$$x \cdot y = \sum_{i=1}^n x_i \cdot y_i$$

- Cosine

$$\cos(x, y) = \frac{x \cdot y}{|x| \cdot |y|} = \frac{\sum_{i=1}^n x_i \cdot y_i}{\sqrt{\sum_{i=1}^n x_i^2} \sqrt{\sum_{i=1}^n y_i^2}}$$

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
20	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
21	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
22	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
23	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
24	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
25	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	4
26	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	3
27	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
28	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
29	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	1	1	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	

input



Dengan inner-product

Solusi

	20	21	22	23	24	25	26	27	28	29	30	31	32	
	4	3	1	3	1	4	3	1	4	0	0	0	0	
33	1	1	1	1	0	0	0	0	0	1	0	0	0	11
34	1	1	1	0	1	0	0	0	0	0	1	0	0	9
35	1	1	1	0	0	1	1	0	0	1	0	0	0	15
36	0	1	0	0	0	0	0	1	0	0	0	1	0	4
37	0	0	1	0	0	1	0	0	1	0	0	0	1	9

Dengan inner-product

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
20	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7
21	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.61
22	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.25
23	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.61
24	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.25
25	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0.7
26	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0.53
27	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.25
28	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.63
29	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
	1	1	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	

Dengan cosine

Solusi

	20	21	22	23	24	25	26	27	28	29	30	31	32	
	0.7	0.61	0.25	0.61	0.25	0.7	0.53	0.25	0.63	0	0	0	0	
33	1	1	1	1	0	0	0	0	0	1	0	0	0	0.6
34	1	1	1	0	1	0	0	0	0	0	1	0	0	0.5
35	1	1	1	0	0	1	1	0	0	1	0	0	0	0.7
36	0	1	0	0	0	0	0	1	0	0	0	1	0	0.3
37	0	0	1	0	0	1	0	0	1	0	0	0	1	0.49

Dengan cosine