

-!- FP - growth

① TID items

1 EK MNOY

2 DE KNOY

3 AERM

4 CKMU Y

5 CEIKO

Min support = 3

step: 1

Freq. 1-itemsets

item frequency

A 1 x

C 2 x

D 1 x

E 4

I 1 x

K 5

M 3

N 2 x

O 3

U 1 x

Y 3

step: 2 item sorted

{K:5, E:4, M:3, O:3, Y:3}

TID sorted item

1 KEMOY

2 KE OY

3 KEM

4 KMV

5 KEO

step: 3

K: 5

E: 4

M: 3

O: 3

Y: 3

K: 1, 2, 3, 4, 5

E: 1, 2, 3, 4

M: 1, 2

O: 1

Y: 1

O: 1, 2

Y: 1

M: 1

Y: 1

Item

Conditional

Y {KEMO:1} {KEO:1} {KM:1}

O {KEM:1} {KE:2}

M {KE:2} {K:1}

E {K:4}

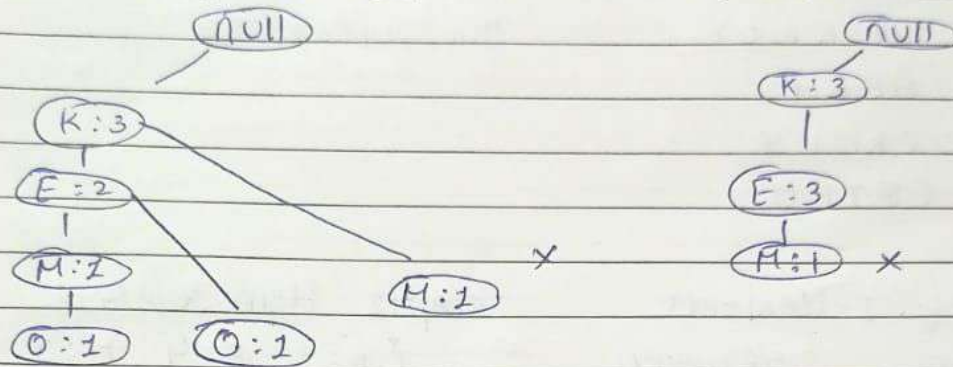
K -

Step: 4

Item condition P.B. condition FP-tree

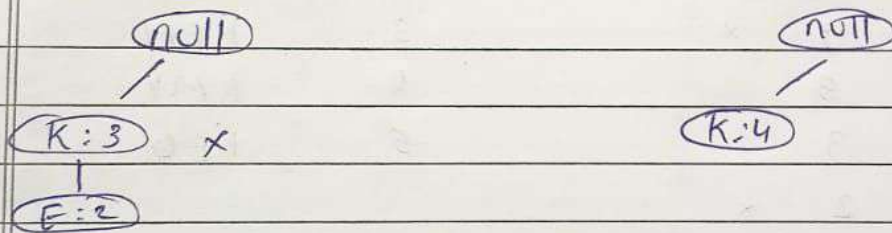
Y {KEMO:1} {KEO:1} {KM:1} {K:3}

O {KEM:1} {KE:2} {K:3, E:3}



M {KE:2} {K:1} {K:3}

E {K:4} {K:4}



Step: 5

Item condition P.B.

FP-tree

Frequency Pattern.

Y {KEMO:1} {KEO:1} {KM:1} {K:3} {K, Y:3}

O {KEM:1} {KE:2} {K:3, E:3} {K, O:3} {E, O:3}

M {KE:2} {K:1} {K:3} {K, M:3}

E {K:4} {K:4} {K, E:4}

K - -

(2)

TID	items	Min. support - 3
1	1 2 5	
2	2 4	
3	2 3	
4	1 2 4	
5	1 3	
6	2 3	
7	1 3	
8	1 2 3 5	
9	1 2 3	

step: 1

item	frequency
1	6
2	7
3	6
4	2 x
5	2 x

step: 2

item sorted
{1: 6, 2: 7, 3: 6}

TID	sorted item
1	2 1
2	2
3	2 3
4	2 1
5	1 3
6	2 3
7	1 3
8	2 1 3
9	2 1 3

step: 3

(NOT)

2: 7	→ 2: 1, 2, 3, 4, 5, 6, 7
1: 6	→ 1: 1, 2, 3, 4, 5, 6
3: 6	→ 3: 1, 2, 3, 4, 5, 6

Item	conditional
2	{2, 1} {2, 3} {2, 4}
3	{2, 1: 2}, {2: 2}, {1: 2}
1	{2: 2} 9
2	-

Step: 4

Item

conditional

FP-tree

3

$\{2, 1:2\}, \{2:2\}, \{1:2\}$

1

$\{2:2\}$

