

Data mining : Tutorial 5

Question 1

q)	c1	Item	Sup	c2	Item	Sup	c3	Item	Sup
		1	5		1, 2	9		1, 2, 4	3
		2	5		1, 3	2		2, 4, 5	2
		3	3		1, 4	3			
		4	4		1, 5	3			
		5	4		2, 3	2			
					2, 4	4			
					2, 5	3			
					3, 4	2			
					3, 5	2			
					4, 5	3			

Answer : 1

2

3

4

5

1, 2

1, 4

2, 4

2, 5

4, 5

1, 2, 4

2, 4, 5 ~~✗~~

b) ~~1 → 3~~

Association Rules	Support	Confidence
$1 \rightarrow 2$	3 3 (40%)	60%
$1 \rightarrow 4$	3 (40%)	60%
$2 \rightarrow 4$	4 (60%)	80%
$2 \rightarrow 5$	3 (40%)	60%
$4 \rightarrow 5$	3 (40%)	75%

Question 2a) hot dogs \Rightarrow hamburgers, mined.

$$\text{Support} = \frac{2000}{2500} = 80\%$$

$$\text{Confidence} = \frac{2000}{2500} \cdot \frac{80\%}{0.8} = \frac{1}{2} = 50\%$$

* This association rule is strong since the support exceed min support threshold.

b)