Assignment

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01).

=> Pass(K) = 1

Item Set	Sup Count
Hot Dogs	4
Buns	2
Ketchup	2
Coke	3
Chips	4

Frequent k-item sets - HotDogs, Buns , Ketchup , Coke , Chips

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=> pass(K) = 2

Item Set	Set Count
(HotDogs , Buns)	2
(HotDogs , Ketchup)	1
(HotDogs , Coke)	2
(HotDogs , Chips)	2
(Buns , Ketchup)	1
(Buns , Coke)	0
(Buns , Chips)	0

(ketchup , Coke)	0
(Ketchup , Chips)	1
(Coke , Chips)	3

Frequent k-item sets - (HotDogs , Buns) , (HotDogs , Coke) , (HotDogs , Chips) , (Coke , Chips)

Pass(k) = 3

Item Set	Set Count
(HotDogs , Coke , Chips)	2

Frequence k-Item sets – (HotDogs , Coke , Chips)

Item sets:

{HotDogs}, {Buns}, {Ketchup}, {Coke}, {Chips}, {HotDogs, Buns}, {HotDogs, Coke}, {HotDogs, Chips}, {Coke, Chips}, {HotDogs, Coke, Chips}.

Association rules:

{HotDogs, Buns} would generate: HotDogs → Buns (2/6=0.33, 2/4=0.5)

Buns → HotDogs (2/6=0.33, 2/2=1)

{HotDogs, Coke} would generate: HotDogs →Coke (0.33, 0.5)

Coke →HotDogs (2/6=0.33, 2/3=0.66)

{HotDogs, Chips} would generate: HotDogs →Chips (0.33, 0.5)

Chips →HotDogs (2/6=0.33, 2/4=0.5)

{Coke, Chips} would generate: Coke →Chips (3/6=0.5, 3/3=1)

Chips →Coke (3/6=0.5, 3/4=0.75)

{HotDogs, Coke, Chips} generate:

HotDogs →Coke ^ Chips (2/6=0.33, 2/4=0.5),

Coke →Chips ^ HotDogs (2/6=0.33, 2/3=0.66),

Chips →Coke ^ HotDogs (2/6=0.33, 2/4=0.5),

HotDogs ^ Coke →Chips (2/6=0.33, 2/2=1),

HotDogs ^ Chips →Coke (2/6=0.33, 2/2=1)

Coke ^ Chips →HotDogs (2/6=0.33, 2/3=0.66)

confidence threshold set to 60%,

Strong Association Rules

1. Coke →Chips (0.5, 1)
2. Buns → HotDogs (0.33, 1)
3. HotDogs ^ Coke → Chips(0.33, 1)
4. HotDogs ^ Chips →Coke(0.33, 1)
5. Chips → Coke (0.5, 0.75);
6. Coke → HotDogs (0.33, 0.66);
7. Coke → Chips ^ HotDogs (0.33, 0.66)
8. Coke ^ Chips →HotDogs (0.33, 0.66)