

Quiz 7 หา frequent itemsets และ association rules ที่น่าสนใจ

Transaction ID	Items Purchased
1	Milk, Bread, Butter
2	Milk, Eggs
3	Bread, Butter, Jam
4	Milk, Eggs, Butter
5	Bread, Butter, Jam, Milk

ตั้ง minimum support เป็น 3

frequent 1

- Milk: 3 $\rightarrow 3/5 = 0.6$
- Bread: 3 $\rightarrow 3/5 = 0.6$
- Butter: 4 $\rightarrow 4/5 = 0.8$
- Eggs: 2
- Jam: 2

Frequent 1-itemsets (support ≥ 3):

- Milk, Bread, Butter

frequent 2

- (Milk, Bread): 2
- (Milk, Butter): 3 $\rightarrow 3/5 = 0.6$
- (Milk, Eggs): 2
- (Bread, Butter): 3 $\rightarrow 3/5 = 0.6$
- (Bread, Jam): 2
- (Butter, Jam): 2

Frequent 2-itemsets (support ≥ 3):

- (Milk, Butter), (Bread, Butter)

frequent 3

- (Milk, Bread, Butter): 2
- (Bread, Butter, Jam): 2
- (Milk, Butter, Eggs): 1

ไม่มี frequent 3-itemsets ที่มี support ≥ 3

Association rule

1. จาก (Milk, Butter):

- Milk \rightarrow Butter (confidence = $3/3 = 100\%$) $\rightarrow 3/5$, $3/4$ ได้ 60%, 75%
- Butter \rightarrow Milk (confidence = $3/4 = 75\%$) $\rightarrow 3/5$, $3/4$ ได้ 60%, 75%

2. จาก (Bread, Butter):

- Bread \rightarrow Butter (confidence = $3/3 = 100\%$) $\rightarrow 3/5$, $3/3$ ได้ 60%, 100%
- Butter \rightarrow Bread (confidence = $3/4 = 75\%$) $\rightarrow 3/5$, $3/4$ ได้ 60%, 75%