

HW9

- ▶ Due: next Wed. 23:59:59
- ▶ Filename: HW#_StuID.zip
 - Ex) HW3_Q123456.zip

Tid	Items
001	A, C, D
002	B, C, E
003	A, B, C, E
004	B, E

support $(X \rightarrow Y) = \text{Prob.}(X \cup Y)$

min_support = 0.5

- ▶ Frequent patterns
 - A, B, C, E
 - AC, BC, BE, CE
 - BCE

Tid	Items
001	A, C, D
002	B, C, E
003	A, B, C, E
004	B, E

$$\text{confidence}(X \rightarrow Y) = \text{Prob.}(X \cup Y / X)$$

$$\text{min_conf} = 2/3$$

► Strong association rules

- $\{B, E\} \rightarrow C$ (2 / 3)
- $C \rightarrow A$ (2 / 3)
- $A \rightarrow C$ (2 / 2)

- ▶ Compute strong association rules from a given DB and user-defined min_supp and min_conf
- ▶ Requirements:
 - First, let users input the file name of the input DB.
 - Second, let users input min_supp and min_conf.
 - Read the DB and compute the strong association rules.
 - Output all strong association rules.

▶ $\text{min_supp} = 0.5$ and $\text{min_conf} = 0.66$

▶ Example DB file:

00001 A,C,D

00002 B,C,E

00003 A,B,C,E

00004 B,E

00005 A,C,E

00006 B,C,D