

CSCE 5073 Data Mining --- Homework of Association Rule

Due date: N/A

1. (4pts) Given data sequences produced from the transaction database

Customer ID	Data sequence
C1	$\langle \{a,d\} \{c,d\} \rangle$
C2	$\langle \{a,b,d\} \{a,c\} \{c,e\} \rangle$
C3	$\langle \{c\} \rangle$
C4	$\langle \{a\} \{d\} \{c\} \rangle$
C5	$\langle \{d\} \{c\} \rangle$
C6	$\langle \{a,c\} \{e\} \{d\} \rangle$

Compute the support of sequential pattern of

$\langle \{a,c\} \rangle$

$\langle \{c\} \{d\} \rangle$

2. (6pts) Assume we have the following association rules with threshold $\text{min_sup} = s$ and $\text{min_con} = c$:

$A \Rightarrow C (s1, c1), \quad B \Rightarrow A (s2, c2), \quad C \Rightarrow B (s3, c3)$

Show the conditions that the association rule $C \Rightarrow A$ holds.