Blatt 8 Aufgabe 2

Sven Fiergolla 1252732

A)

TID	A	B	C	D	E	F
1	1	1	1	0	0	0
2	0	1	0	0	1	1
3	1	0	1	0	1	0
4	1	0	0	0	0	0
5	0	1	0	0	0	0
6	0	0	0	1	0	1
7	0	1	0	0	1	0
8	1	1	1	0	1	1
9	1	0	0	1	0	0
10	1	0	0	0	1	1

B)

Aus einer $minfreq = 0,25$ resultieren folgende Itemsets:

$$\{A\},\{B\},\{C\},\{E\},\{F\},\{AC\},\{BF\},\{AE\},\{EF\},\{BE\}$$

C)

Support =

$$supp(\{A\} \rightarrow \{B,C\}) = supp(\{A\} \cup \{B,C\})$$
$$= supp(\{A,B,C\}) = |\{t \in D: \quad t \; enthlt \; X\}| = |\{t_1, t_8\}| = 2$$

$$Konfidenz = supp(\frac{supp(\{A,B,C\})}{supp(\{A\})}) = \frac{2}{6} = \frac{1}{3}$$

D)

$minsupp = 2$
Startmenge $F_1 = \{A,B,C,D,E,F\}$

Generiere $F_2 = nicht \; nach \; F_{k-1} \times F_k \; mglich$
$C_2 = \{\{AB\}, \{AC\}, \{AD\}, \{AE\}, \{AF\}, \{BC\}, \{BD\}, \{BE\}, \{BF\}, \{CD\},$
$\{CE\}, \{CF\}, \{DE\}, \{DF\}, \{EF\}$
$F_2 = \{\{AB\},\{AC\},\{AF\},\{BC\},BE\},\{BF\},\{CE\}$