

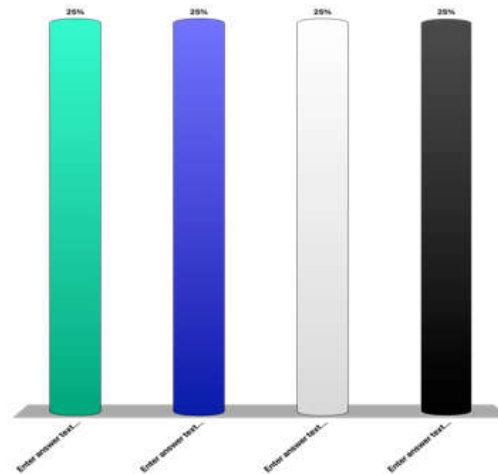
An insurance company wants to find typical, but unknown, causes for specific injuries from earlier cases. This likely is based on ...

- A. local rule discovery
- B. predictive modelling
- C. descriptive modelling
- D. exploratory data analysis



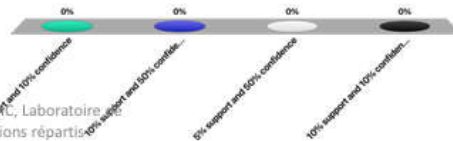
Let's assume that the transactions are stored in a relation  $T(x, A1, \dots, A5)$ , where  $x$  is the customer and each attribute  $A1, \dots, A5$  can have 3 different values. How many different items exist after reduction to a single dimension?

- A. 5
- B. 243
- C. 125
- D. 15



10 itemsets out of 100 contain item A, of which 5 also contain B. The rule  $A \rightarrow B$  has:

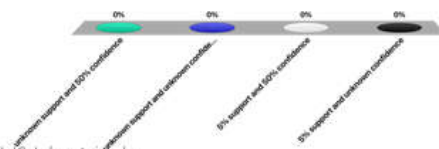
- A. 5% support and 10% confidence
- B. 10% support and 50% confidence
- C. 5% support and 50% confidence**
- D. 10% support and 10% confidence



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10 itemsets out of 100 contain item A, of which 5 also contain B. The rule  $B \rightarrow A$  has:

- A. unknown support and 50% confidence
- B. unknown support and unknown confidence
- C. 5% support and 50% confidence
- D. 5% support and unknown confidence**



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Given the frequent 2-itemsets  $\{1,2\}$ ,  $\{1,4\}$ ,  $\{2,3\}$  and  $\{3,4\}$ , how many 3-itemsets are generated and how many are pruned?

A. 2, 2

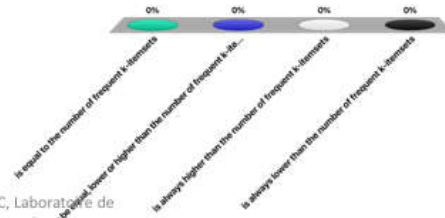
B. 1, 0

C. 1, 1

D. 2, 1

After the join step, the number of  $k+1$ -itemsets ...

- A. is equal to the number of frequent  $k$ -itemsets
- B. can be equal, lower or higher than the number of frequent  $k$ -itemsets
- C. is always higher than the number of frequent  $k$ -itemsets
- D. is always lower than the number of frequent  $k$ -itemsets



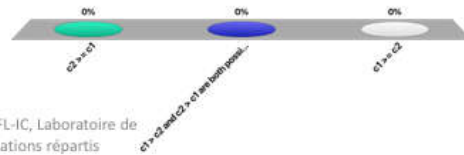
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If rule  $\{A,B\} \rightarrow \{C\}$  has confidence  $c_1$  and rule  $\{A\} \rightarrow \{C\}$  has confidence  $c_2$ , then ...

A.  $c_2 \geq c_1$

B.  $c_1 > c_2$  and  $c_2 > c_1$   
are both possible

C.  $c_1 \geq c_2$



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A false negative in sampling can only occur  
for itemset with support smaller than ...

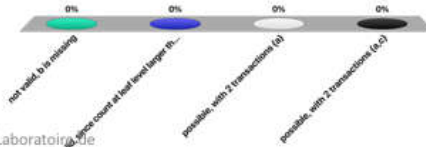
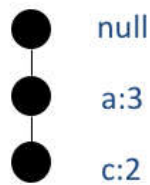
- A. the threshold  $s$
- B.  $p \cdot s$
- C.  $p \cdot m$
- D. None of the above





## The FP tree below is ...

- A. not valid, b is missing
- B. not valid, since count at leaf level larger than 1
- C. possible, with 2 transactions {a}
- D. possible, with 2 transactions {a,c}



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