Lesson 4 Quiz

4 试题

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1 point

1。

Suppose one needs to frequent patterns at two different levels, with mini-support (minsup) of 5% (higher level) and 3% (lower level), respectively. If *using shared multi-level mining*, which mini-support (minsup) threshold should be used to generate candidate patterns for the higher level?

- ○ 5%
- ● 3%
- ○ 8%
- ○ 1%

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1 point

2。

A store had 100,000 total transactions in Q4 2014. 10,000 transactions contained beer, while 5,000 contained frying pans. 600 transactions contained both beer and frying pans. Which of the following is true?

- ● For ε = 0.1, {beer, frying pans} is a negative pattern under the null-invariant definition of negatively correlated patterns.

- ○ More information is needed to determine if {beer, frying

pans} is a negative pattern.

○ There does not exist a value for ε such that {beer, frying pans} is a negative pattern by the null-invariant definition of negative patterns.

○ {beer, frying pans} is a negative pattern under the support-based definition of negatively correlated patterns.

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3.

Below is a table of transactions. According to the introduced pattern distance measure, what is the distance between pattern "abc" and pattern "abd"?

Transaction	Item set
T1	abcde
T2	abefg
T3	abcdef
T4	abcdf
T5	abcdeg

○ 0.2

○ 0.5

○ 0.333

● 0

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4.

Pat-ID	Item-Sets	Support
P1	{A, C, E, S}	205227
P2	{F, A, C, E, S}	205211
P3	{F, A, C, E, T, S}	101758
P4	{F, A, C, T, S}	161563
P5	{A, C, T, S }	161576

Table 1: Support for frequent itemsets

Consider two patterns P_1 and P_2 such that $O(P_1) \subseteq O(P_2)$, where $O(P_i)$ is the corresponding itemset of pattern P_i. Take a second to convince yourself that the following is true:

$$Dist(P_1, P_2) = 1 - \frac{|T(P_1) \cap T(P_2)|}{|T(P_1) \cup T(P_2)|} = 1 - \frac{|T(P_2)|}{|T(P_1)|}$$

Which of the following patterns in Table 1 is δ-covered by {F, A, C, E, T, S} for δ=0.4? Select all that apply.

- [ ] {F, A, C, E, S}

- [x] {F, A, C, T, S}

- [x] {A, C, T, S}

- [ ] {A, C, E, S}

提交测试