Lesson 4 Quiz

TOTAL POINTS 4

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? 1 point

- ○ 1%
- ◉ 3%
- ○ 8%
- ○ 5%

2. A store had 100,000 total transactions in Q4 2014. 10,000 transactions contained eggs, while 5,000 contained bacon. 2000 transactions contained both eggs and bacon. Which of the following choices for the value of ε is the smallest such that {eggs, bacon} is considered a negative pattern under the null-invariant definition? 1 point

- ○ 0.01
- ○ 0.1
- ○ 0.8
- ○ A value for ε such that {eggs, bacon} is a negative pattern under the null-invariant definition does not exist.
- ◉ 0.5

3. 1 point

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

- 0.5
- 0.333
- 0 (selected)
- 0.2

4.

1 point

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

Given the itemsets in Table 1 and a cluster quality measure δ = 0.001, what could be a set of representative patterns that covers all itemsets in Table 1?

Hint: The pattern with the least support is {F, A, C, E, T, S}. Consider which pattern in the table may δ-cover the pattern {F, A, C, E, T, S}.

- ○ {{F, A, C, E, T, S}}
- ○ {{F, A, C, E, S}, {F, A, C, E, T, S}, {F, A, C, T, S}}
- ○ {{A, C, E, S}, {A, C, T, S}}
- ○ {{F, A, C, E, S}, {F, A, C, T, S}}
- ◉ {{F, A, C, E, S}, {A, C, E, S}}

☑ I, **BAL KRISHNA NYAUPANE**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

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