⓵ This quiz has been regraded; your score was affected.

Project 4 Questions

Due Apr 2, 2018 at 11:59pm **Points** 6 **Questions** 11 **Time Limit** None

Instructions

These questions are to be answered after completing the rest of project 4.

Attempt History

	Attempt	Time	Score	Regraded
LATEST	Attempt 1	267 minutes	4.5 out of 6	6 out of 6

Score for this quiz: **6** out of 6
Submitted Apr 2, 2018 at 10:16pm
This attempt took 267 minutes.

Question 1 — 0.5 / 0.5 pts

A high cardinality score is assigned to ‘x’ in X if it occurs with different ‘y’ values in Y.

- ○ True
- ◉ False

Correct!

Question 2 — 0.5 / 0.5 pts

A high cardinality score is assigned to ‘x’ in X if it occurs with exactly one ‘y’ value multiple times.

Correct!

- (•) True
- ( ) False

Question 3

0.5 / 0.5 pts

A high consistency score is assigned to ‘x’ in X if it occurs mostly with a fixed ‘y1’ in Y and with possibly few other values in Y.

Correct!

- (•) True
- ( ) False

Question 4

Original Score: 0 / 0.5 pts Regraded Score: 0.5 / 0.5 pts

ⓘ This question has been regraded.

It is impossible for cardinality(X,Y,x) to be 1 and consistency(X,Y,x) not to be 1.

orrect Answer

- ( ) True

'ou Answered

- (•) False

Question 5

0.5 / 0.5 pts

It is impossible for consistency(X,Y,x) to be 1 and cardinality(X,Y,x) to not be 1.

Correct!

- (•) True
- ( ) False

Question 6

0.5 / 0.5 pts

How high does the threshold have to be for the fuzzy functional dependency calculation to be the same as a regular functional dependency?

Correct!

2

orrect Answers

2.0

2

Question 7

0.5 / 0.5 pts

The confidence equation adds together two parts --- one part is focused on cardinality and the other part focused on consistency. Do we really need both parts? Let's say that we removed the **consistency** part, and doubled the **cardinality** part. Under what situations would we be likely to incorrectly identify fuzzy functional dependencies X~->Y when in fact X and Y have nothing to do with each other. (But if we used the original confidence equation, we would likely correctly not identify X~->Y as a fuzzy functional dependency.) Assume reasonable thresholds and data sizes (e.g., a threshold in the range of 1.5-1.7 and 10000-100000 tuples).

(Check all that apply)

X is:

Correct!

- [x] Mostly unique (only a few repeats).

- [ ] Medium number of unique values, with each value repeating approximately the same number of times.
- [ ] Few number of unique values, and heavily skewed (99% of column has only one value).
- [ ] Non-integer values.
- [ ] Doesn't matter! Only Y matters.
- [ ] Doesn't matter! We don't need the consistency part of the equation!

Question 8

0.5 / 0.5 pts

Choose all the suitable choices for Y based on the choices that you chose for X in Q7.

(choose all that apply)

Y is:

Correct!
- [x] Mostly unique (only a few repeats).

Correct!
- [x] Medium number of unique values, with each value repeating approximately the same number of times.
- [ ] Few number of unique values, and heavily skewed (99% of column has only one value).
- [ ] Non-integer values.

- [ ] Doesn't matter! Only X matters.
- [ ] Doesn't matter! We don't need the consistency part of the equation!

Question 9

0.5 / 0.5 pts

The confidence equation includes two parts --- one part is focused on cardinality and the other part focused on consistency. Do we really need both parts? Let's say that we removed the **cardinality** part, and doubled the **consistency** part. Under what situations would we be likely to incorrectly identify fuzzy functional dependencies X~->Y when in fact X and Y have nothing to do with each other. (But if we used the original confidence equation, we would likely correctly not identify X~->Y as a fuzzy functional dependency.) Assume reasonable thresholds and data sizes (e.g., a threshold in the range of 1.5-1.7 and 10000-100000 tuples).

(choose all that apply)

X is:

- [ ] Mostly unique (only a few repeats).

Correct!

- [x] Medium number of unique values, with each value repeating approximately the same number of times
- [ ] Few number of unique values, and heavily skewed (99% of column has only one value).
- [ ] Non-integer values.
- [ ] Doesn't matter! Only Y matters.
- [ ] Doesn't matter! We don't need the consistency part of the equation!

Question 10

0.5 / 0.5 pts

Choose all the suitable choices for Y based on the choices that you chose for X in Q9.

(choose all that apply)

Y is:

- [ ] Mostly unique (only a few repeats).
- [ ] Medium number of unique values, with each value repeating approximately the same number of times.
- [x] Few number of unique values, and heavily skewed (99% of column has only one value).

Correct!

- [ ] Non-integer values.
- [ ] Doesn't matter! Only X matters.
- [ ] Doesn't matter! We don't need the consistency part of the equation!

Question 11

1 / 1 pts

Give an example of a dataset where the full confidence equation (with both parts) still incorrectly predicts a functional dependency that doesn't really exist (X and Y have nothing to do with each other). Don't give the actual dataset, just describe X and Y using similar types of descriptions as the options given above (e.g. X has 100 unique values, and is skewed in a certain way, etc.)

Your Answer:

X has medium # of unique , Y has few # of unique

Quiz Score: **6** out of 6