Data Models Quiz

8/9 points (88%)

Quiz, 9 questions

✓ Congratulations! You passed!

Next Item



1. What is a possible pitfall of utilizing Excel as a way to manipulate small databases?

1/1 points

Excel does not allow algorithms for data manipulation.

 Excel does not enforce many principles of relational data models.

Correct

For more information about the following concept, please view <u>here</u>.

Excel is a user program and thus cannot run on a server.



2. What does the term "atomic" mean in the context of relational databases?

1/1 points

One unit of information that cannot be decomposed.

Correct

For more information about the following concept, please view <u>here</u>.

A column or row of data. Depends on the context.

		Fixed schema of a particular database.
		A tuple that cannot be reduced.
~	3.	What is the Pareto-Optimality problem?
1/1 points		Find the optimal path that requires going through specific nodes given by the user.
		Find the shortest path from source node to target node.
		Find the best possible path given two or more optimization criteria where neither constraint can be fully optimized simultaneously.
		Correct For more information about the following concept, please view <u>here</u> .
	1	What constitutes a community within a graph?
1/1 points	4.	Many anomalous neighborhoods within the same vicinity. A dense amount of edge connections
		between nodes in a community and a few connections across communities.
		Correct For more information about the following

concept, please view here.

		A neighborhood defined by an integer constant K around a specific node. All K+1 nodes belong in another community. High density of nodes at a certain location.
~	5.	Why are trees useful for semi-structured data such as XML and JSON?
1/1 points		Trees take advantage of the parent- child relationship of the data for easy navigation.
		Correct For more information about the following concept, please view <u>here</u> .
		Computers can easily visualize the data with a tree structure.
		They are only useful for XML data as tree-like structure is apparent with tags. While JSON does not contain a tree-like structure as it contains arrays.
		It is not always the case that XML and JSON can be represented as trees.
×	6.	What is the general purpose of modeling data as vectors?
0 / 1 points		Enables weighting of the query.
		Results can be ordered by similarity using vector projection.

7.

1/1 points

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	Enables image searching.		
	The ability to normalize vectors allowing probability distributions.		
This sl	hould not be selected		
For more information about the following concept, please view <u>here</u> .			
registrat followin if the us	following questions 7, 8, and 9, suppose a tion website creates data with the g fields for each person registered (note: er does not input a value, NULL is stored : Name, Date, Address, and Account		
month, the field want to the entiredundarecords month to	e we collect data month by month. Each we would have a batch of data containing is listed above. At the end of the year, we summarize our registrant activities for re year, so we would remove ancies in our data by removing any with duplicate account numbers from to month. What type of operation do we his scenario?		
0	Union		
	et nore information about the following ept, please view <u>here</u> .		
	Not an Operation		

Join

Subsetting



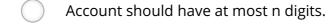
1/1 points

From the information given in question 7, what are the constraints, if any, which we have placed on the Account Number field for the end of year collection?

If we had n duplicate Account
Numbers then we will remove n-
duplicate fields.

Correct

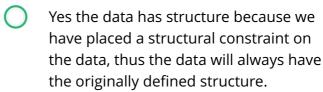
For more information about the following concept, please view <u>here</u>.





1/1 points 9. Suppose 100 people signup for our system and of the 100 people, 60 of them did not input an address. The system lists the values as NULL for these empty entries in the address field. Would this situation still have structure for our data?

No because the majority of data do not
have a specific field filled, thus our
originally defined structure is lost.





Correct

For more information about the following concept, please view <u>here</u>.





