SQL quiz



What does the SQL keyword "DISTINCT" do in a SELECT statement?

- A. Filters rows based on a specified condition
- B. Removes duplicate rows from the result set
- C. Sorts the result set in ascending order
- D. Performs a case-insensitive search



Which of the following is/are wrong about primary key and unique key?

- ☐ A. Only one primary key is allowed in a database.
- ☐ B. Unique key allows NULLs but primary key does not. \
- C. A column with a foreign key can reference another column with a unique key or a primary key.
- D. Only one unique key is allowed in a table.
- □ E. Primary key allows NULLs but unique key does not.

Given the relation below:

staff

name (varchar(100))	email (varchar(100))	age (int)
Wesley Huang	w.huang@abc.com	27
Sam Shaw	s.shaw@abc.com	31
Chris Lee	c.lee@def.com	47
Steve Shen	s.shen@def.com	22
Craig Johnson	c.johns@gkd.com	51

The degree of this table is 3, the cardinality is 3.

After executing "DELETE FROM staff WHERE age > 30 and age < 40;",

the degree of this table becomes and the cardinality becomes



QL stands for:

- A. Synchronized Query Language
- B. Standard Query Language
- □ C. Sequential Query Language
- D. Structured Query Language

b.c.d

Instead of using NULL, sometimes special values are used to represent missing information. For example, 0 is used when the age of someone is unknown. Which of the following statement(s) is/are correct about these special values?

a. Special values can replace NULL in all situations.

b. One advantage of using special values over NULL is that they can indicate different types of missing information.

c. Special values need to be taken care of whenever WHERE clauses are involved.

d. Special values may increase the complexity of update operations because they can be updated accidentally

Special values reduces the complexity of delete operations because less

conditions need to be considered.

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v
Х
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а	b
4	6
3	4
9	9
8	1
2	12

W	
y	

У	
а	b
6	6
4	7
6	8
2	4
8	11

The result of query "SELECT x.b + y.a FROM x, y WHERE x.a = $\frac{1}{2}$ x.a + 2;" contains from y rows. The maximum value is and the minimum value is .

What is the PRIMARY purpose of Entity-Relationship (ER) modeling in database design?

- A. To define the data types for columns in database tables χ
- B. To optimize SQL queries for database performance
- C. To visualize and define the structure of a database
- D. To create user interfaces for database applications

X

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а	b
1	10
2	11
3	12
4	13
5	14

У	
а	b
3	1
4	1
5	2
6	5
7	3

The result of query "SELECT * FROM x WHERE EXISTS (SELECT * FROM y WHERE b)= x.a);" contains fows. The sum of column 'a' of the query result is



You are querying a database and want to find all records where a certain column is not NULL. Which SQL clause should you use?

□ A. WHERE column IS NULL X



□ B. WHERE column = NULL X



- C. WHERE column NOT NULL
- □ D. WHERE column <> NULL



Given tables x (a, b) and y (c, d). Assume that columns a and c are primary keys and the following foreign key:

CONSTRAINT FOREIGN KEY (d) REFERENCES \times (a) ON DELETE RESTRICT ON UPDATE CASCADE

Which of the following statements is/are correct?

A.	Changing values in column d into other values will cause the database to automatically update values in a.
□ B.	Changing values in column d into NULL will cause the database to automatically update values in a.
□ C.	Changing all values in column a into 1 will cause the database to automatically update values in d.
□ D.	DELETE rows in table x will cause the database to automatically delete rows in y.
□ E.	If both tables contain non-null values, "DROP TABLE y" will cause errors.
☐ F.	If both tables contain non-null values, "DROP TABLE x" will cause errors.
□ G.	DELETE rows in table y will cause the database to automatically delete rows in x.

staff

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Steve Shen	s.shen@def.com	22
Craig Johnson	c.johns@gkd.com	51
Null	k @ abc.com	18

K @ Gb(, Com

After executing all of the following instructions in exactly the same order:

INSERT INTO staff VALUES (NULL, 'x@abc.com', 28);

ALTER TABLE staff ADD COLUMN type VARCHAR(10);

UPDATE staff SET type = 'employee' WHERE age < age + 1;

UPDATE staff SET type = 'manager' WHERE name NOT LIKE '%g%';

There will be manager(s) and employee(s). The whole table will have two less in total.

If the query

SELECT * FROM staff

WHERE name NOT IN (

SELECT name FROM staff WHERE email LIKE '%@def.com'

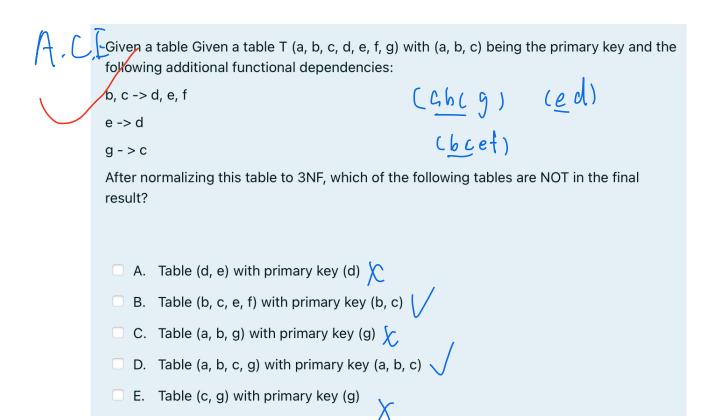
);

is executed on the final table, the query results contain employee(s) and manager(s) in total.

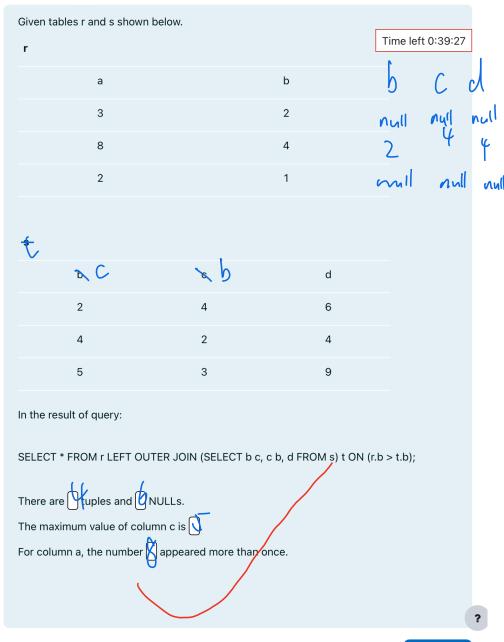
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M

4.6	Which of the following questions are correct about normalisation?
B-C	A. Both transitive dependency and partial dependency must involve primary key columns \ \ \tansitive dependency 7 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	B. An 1NF table without partial dependencies may also be in 3NF
	☐ C. A table in 2NF is also in 3NF if no transitive dependencies are found ✓
	\square D. A table in 1NF is also in 3NF if it does not have no transitive dependencies χ



Question 1
Not yet answered
Marked out of 8.00



Novt page



Which SQL JOIN type returns all rows from both tables, filling in NULL values for non-matching rows?

- A. FULL OUTER JOIN
- B. RIGHT OUTER JOIN
- C. INNER JOIN
- D. LEFT OUTER JOIN