Results

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100%

200
Out of 200 points

19:23
Time for this attempt

Your Answers:

1 8 / 8 points

Which of the following statement(s) are true regarding a TRANSACTION? (Choose all that apply)

□ Transactions are committed using the Select statement.

✓ ☑ Changes made within a transaction are invisible to other users of the database until the COMMIT statement is issued.

□ Transactions are committed using the ROLLBACK statement.

✓ ☑ Multiple Statements(INSERT, UPDATE) can execute in one TRANSACTION

2 8 / 8 points

Why will this query generate an error?

```
SELECT employee_id, salary
FROM employees INNER JOIN salaries ON employee_id
```

```
    = employee_id
WHERE salary >= 75000;
```

○ No employees with a salary greater than or equal to 75000 exist in the database.

○ The above query will not return an error.

✓ ● The join predicate's 'employee_id' field is ambiguous.

○ >= is not a valid operator.

3 8 / 8 points

Which statement will change the city of a customer with the customer_id of 23 to "NYC"?

○ UPDATE customers MODIFY city='NYC' WHERE customer_id=23;

✓ ● UPDATE customers SET city='NYC' WHERE customer_id=23;

○ ALTER TABLE customers SET city='NYC' WHERE customer_id=23;

○ ALTER TABLE customers MODIFY city='NYC' WHERE customer_id=23;

4 8 / 8 points

Which SELECT statement will return the largest salary in the salaries table?

○ SELECT LARGEST(SALARY) FROM SALARIES;

○ SELECT MAXIMUM(SALARY) FROM SALARIES;

✓ ● SELECT MAX(SALARY) FROM SALARIES;

○ SELECT SALARY FROM SALARIES WHERE SALARY=MAX;

5 8 / 8 points

Why would normalized tables be preferred over de-normalized tables in a database? (All that apply)

- ✓ ☑ Because they reduce the amount of redundancy
- ☐ They are never preferred. De-normalized tables will always be better.
- ✓ ☑ Normalized tables simplify data maintenance.
- ☐ Because they require database user authentication to make them secure

6 8 / 8 points

You can use a subquery while also using an aggregate function.
(True/False)

- ✓ ● True
- ○ False

7 8 / 8 points

The __________ statement is used to return only distinct (different) values.

- ○ SELECT *
- ○ SELECT DIFFERENT
- ○ SELECT UNIQUE
- ✓ ● SELECT DISTINCT

8 8 / 8 points

You can use a combination GROUP BY, HAVING and WHERE clauses in one SQL statement.
True or False, and why?

○ False - these clauses can only be used in an UPDATE statement.

✓ ● True but they must appear in the SQL statement in the order WHERE, GROUP BY, HAVING

○ True, but only if the WHERE clause comes last.

○ False - these clauses can never be used together.

9 8 / 8 points

What will the following query return?
Assume: The **productCode** is the primary key in the product table

```
SELECT *
  FROM products p, orderdetails od
WHERE p.productCode = od.productCode and od.productCode is null;
```

○ Everything for products table that have no entry in the orderdetails table.

✓ ● The Query will return NO records.

○ Everything for products table that have an id of null.

○ This query will result in an error.

10 8 / 8 points

What will the following query return? Please note that in this scenario, the ***salary*** column is ***not null***.

```
SELECT e.employee_id, e.firstname, e.lastname FROM employees e
LEFT JOIN salaries s ON e.employee_id = s.employee_id
WHERE s.salary = NULL;
```

✓ ● No values would be returned.

○ All employee_id, firstname, and lastname values in the employees table.

○ A syntax error would be returned.

○ Only employee_id, firstname, and lastname values in the employees table that have no matching entry in the SAL table.

11 8 / 8 points

What will be the results of the following statement?

```
UPDATE PAYMENTS SET status = 'paid'
WHERE payment_id NOT IN(
    SELECT payment_id FROM ACCOUNTS_PAYABLE WHERE status in
('pending', 'rejected')
);
```

○ Payments that are ‘pending’ or ‘rejected’ in the ACCOUNTS_PAYABLE table will have their status set to ‘paid’.

✓ ● Payments that are neither 'pending' nor 'rejected' in the ACCOUNTS_PAYABLE table will have their status set to 'paid'.

○ Nothing will happen because the nested query will always return null

○ The statement will return an error.

12 8 / 8 points

What does the WHERE clause do?

○ WHERE is used to define a JOIN predicate.

○ It defines the source of data to be imported into the database.

✓ ● It defines one or more conditions that must be met for a row of data to be returned.

○ It defines the table(s) from which data is selected.

13 8 / 8 points

Why is a primary key important in database tables? (Choose all that apply)

✓ ☑ To help maintain referential integrity

✓ ☑ To access database records faster

□ To secure the relational database

✓ ☑ To easily identify and find unique rows in the database table

14 8 / 8 points

How could you modify the following query in order to ONLY count customers with a first_name starting with "T"?

```
SELECT c.last_name, c.first_name, COUNT(o.orderNumber)
FROM customers c LEFT JOIN orders o ON c.customer_id =
o.customer_id
GROUP BY c.customer_id;
```

○ Use a HAVING clause before the GROUP BY.

✓ ● Use a WHERE clause before the GROUP BY.

○ This cannot be done.

○ Use a WHERE clause at the end of the query.

15 8 / 8 points

We use constraints for which of the following reasons?

○ Because our boss told us to. There is no other reason.

○ They add an additional level of complexity to the table.

✓ ● They enhance data integrity and provide adherence to business requirements.

○ They remove potential backdoors in our table that hackers could otherwise exploit.

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8 / 8 points

The ID column of the Products table corresponds to the Product_ID column of the OrderItems table.
Your client would like to display a list of all orders along with the name and price of the items associated with that order. Which of the following joins would allow you to do that?

○ Cross Join

✓ ● Inner Join

○ Non-Equi-Join

○ Self Join

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8 / 8 points

ORDER BY sorts data in descending order by default.

○ True

✓ ● False

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8 / 8 points

Multiple types of JOINs (ie: INNER, LEFT , RIGHT) can be used in the same query.

✓ ● True

○ False

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8 / 8 points

It is possible for a primary key to consist of multiple fields.
(True/False)

✓ ● True

○ False

20 8 / 8 points

which of the following statements is true?

○ In the MySQL database, The value of a primary key is automatically generated by default.

○ In the MySQL database, The value of a primary key cannot be automatically generated

✓ ● In the MySQL database, The value of a primary key is automatically generated by using AUTO_INCREMENT

○ In the MySQL database, The value of a primary key is automatically generated by using INCREMENT keyword

21 8 / 8 points

Given two tables, EMP and SAL, how would you add a foreign key constraint on the emp_no column in the SAL table, referring to the id column in the EMP table?

○ Use the ALTER TABLE command with the MODIFY clause on the EMP table.

○ Use the ALTER TABLE command with the MODIFY clause on the SAL table.

✓ ● Use the ALTER TABLE command with the ADD clause on the SAL table.

○ Use the ALTER TABLE command with the ADD clause on the EMP table.

22 8 / 8 points

Given the below statement, what would happen if the inner query returned an empty list?

```
SELECT * FROM employees WHERE employeeId NOT IN(
    SELECT employeeId FROM employees WHERE departmentId = 14
);
```

○ A cartesian product would be returned

✓ ● All of the values in the employees table would be returned for employees who are not in the department with an id of 14.

○ No values would be returned.

○ All values in the employees table for employees with department_id of 14 would be returned.

23 8 / 8 points

The best practice for declaring/creating a Primary Key must be which of the following?

✓ ● All of the mentioned

○ Unique

○ Not Null

○ Auto increment

○ Numeric

24 8 / 8 points

You are working with very large tables in your database. Which SQL clause do you use to prevent exceedingly large query results?

✓ ● LIMIT

○ DISTINCT

○ UNIQUE

○ DIFFERENT

25 8 / 8 points

All tables In a relational database MUST contain at least one Foreign Key. (True/False)

○ True

✓ ● False