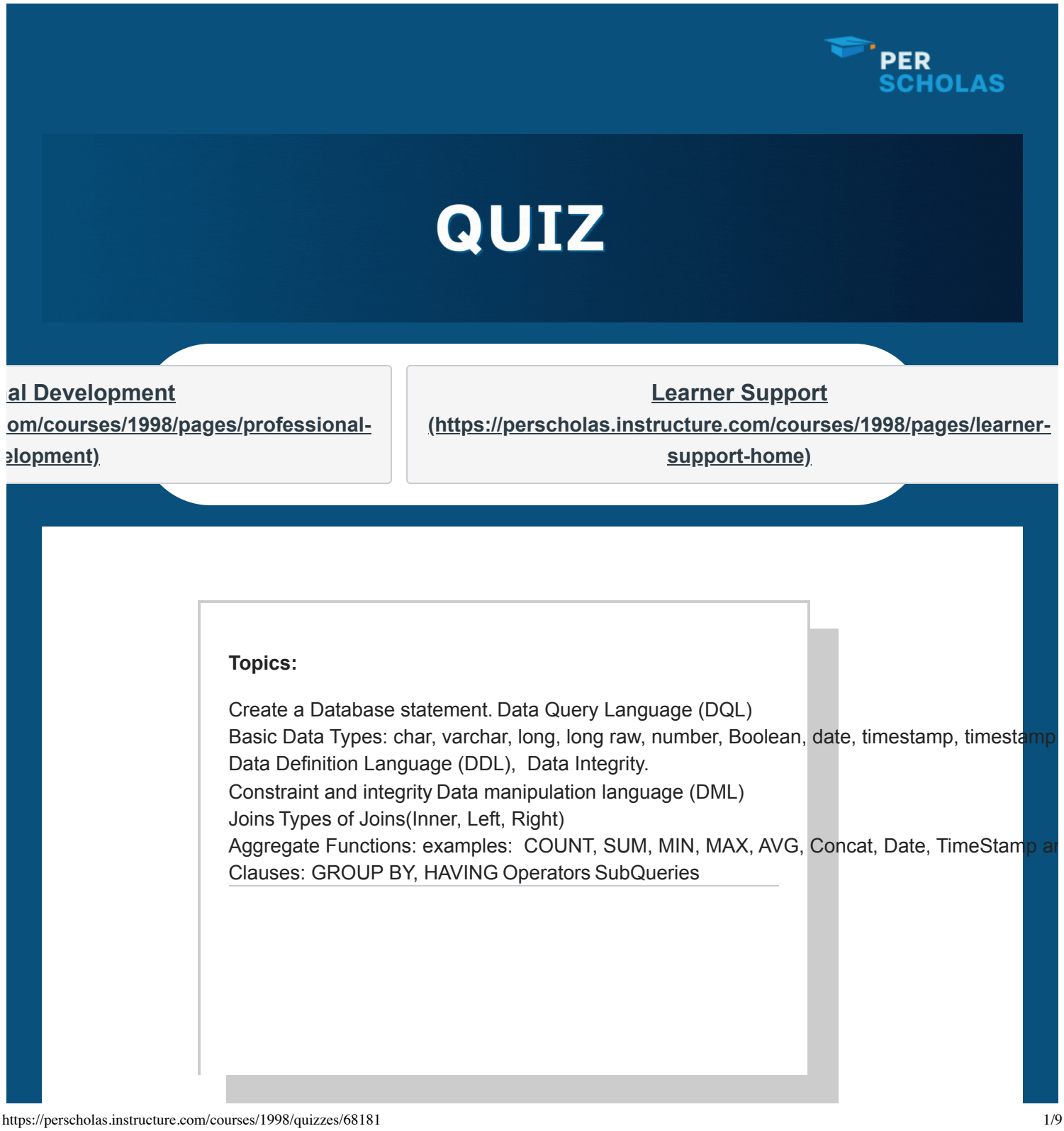
KBA 304 - SQL Assessment

- Due No due date
- Points 200
- Questions 25
- Time Limit 90 Minutes

Instructions



Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	27 minutes	181.33 out of 200

Correct answers are hidden.

Score for this quiz: 181.33 out of 200
Submitted Apr 18 at 10:34am
This attempt took 27 minutes.

Question 1
8 / 8 pts
We use constraints for which of the following reasons?

- (•) They enhance data integrity and provide adherence to business requirements.
- ( ) They add an additional level of complexity to the table.
- ( ) They remove potential backdoors in our table that hackers could otherwise exploit.
- ( ) Because our boss told us to. There is no other reason.

Question 2
8 / 8 pts

Why will this query generate an error?

```
SELECT employee_id, salary
FROM employees INNER JOIN salaries ON employee_id
    = employee_id
WHERE salary >= 75000;
```

- ( ) >= is not a valid operator.
- (•) The join predicate's 'employee_id' field is ambiguous.
- ( ) The above query will not return an error.
- ( ) No employees with a salary greater than or equal to 75000 exist in the database.

Question 3

8 / 8 pts

You can use a combination GROUP BY, HAVING and WHERE clauses in one SQL statement.

True or False, and why?

- False - these clauses can never be used together.
- True, but only if the WHERE clause comes last.
- 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

Question 4

8 / 8 pts

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 an id of null.
- The Query will return NO records.
- Everything for products table that have no entry in the orderdetails table.
- This query will result in an error.

PartialQuestion 5

5.33 / 8 pts

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

- [x] To easily identify and find unique rows in the database table
- [x] To access database records faster
- [ ] To help maintain referential integrity
- [ ] To secure the relational database

Question 6

8 / 8 pts

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

- True

- False

Question 7
8 / 8 pts

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 WHERE clause at the end of the query.
- Use a WHERE clause before the GROUP BY.
- Use a HAVING clause before the GROUP BY.
- This cannot be done.

Question 8
8 / 8 pts

It is possible for a primary key to consist of multiple fields.

(True/False)

- True
- False

Question 9
8 / 8 pts

which of the following statements is true?

- In the MySQL database, The value of a primary key is automatically generated by using INCREMENT keyword
- 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 default.
- In the MySQL database, The value of a primary key is automatically generated by using AUTO_INCREMENT

Question 10
8 / 8 pts

ORDER BY sorts data in descending order by default.

- True

False

Question 11

8 / 8 pts

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

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

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

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

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

Question 12

8 / 8 pts

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

UNIQUE

LIMIT

DISTINCT

DIFFERENT

Question 13

8 / 8 pts

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')
);
```

The statement will return an error.

Nothing will happen because the nested query will always return null

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'.

Question 14

8 / 8 pts

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

- Numeric
- Not Null
- Auto increment
- Unique
- All of the mentioned

Question 15

8 / 8 pts

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?

- Self Join
- Cross Join
- Non-Equi-Join
- Inner Join

Question 16

8 / 8 pts

All tables In a relational database MUST contain at least one Foreign Key.

(True/False)

- True
- False

IncorrectQuestion 17

0 / 8 pts

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 ADD 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 MODIFY clause on the EMP table.

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

Question 18

8 / 8 pts

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

- SELECT MAX(SALARY) FROM SALARIES;
- SELECT MAXIMUM(SALARY) FROM SALARIES;
- SELECT SALARY FROM SALARIES WHERE SALARY=MAX;
- SELECT LARGEST(SALARY) FROM SALARIES;

Question 19

8 / 8 pts

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

- SELECT DIFFERENT
- SELECT DISTINCT
- SELECT *
- SELECT UNIQUE

Question 20

8 / 8 pts

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

- Multiple Statements(INSERT, UPDATE) can execute in one TRANSACTION
- 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.
- Transactions are committed using the Select statement.

Question 21

8 / 8 pts

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;
```

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

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

A syntax error would be returned.

No values would be returned.

Question 22

8 / 8 pts

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

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

Question 23

8 / 8 pts

What does the WHERE clause do?

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

WHERE is used to define a JOIN predicate.

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

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

Question 24

8 / 8 pts

You can use a subquery while also using an aggregate function.

(True/False)

True

False

IncorrectQuestion 25

0 / 8 pts

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 values in the employees table for employees with department_id of 14 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.

Quiz Score: 181.33 out of 200