

## Module 2 - Module Review

100% (16/16)

**1. The WHERE clause in a SQL statement ...**

- ☐ (A) limits the column fields that are returned.
- ☒ (B) limits the row data that is returned.
- ☐ (C) states which table to retrieve data from.
- ☐ (D) A and B
- ☐ (E) I don't know

**2. Which WHERE clause correctly looks for null data in the population column?**

- ☐ (A) SELECT \* FROM country WHERE population = NULL;
- ☐ (B) SELECT \* FROM country WHERE population = 'NULL';
- ☒ (C) SELECT \* FROM country WHERE population IS NULL;
- ☐ (D) SELECT \* FROM country WHERE population == NULL;
- ☐ (E) I don't know

**3. Select the code which gives the name of countries beginning with U**

- ☐ (A) SELECT name  
FROM world  
WHERE name  
BEGIN WITH U;
- ☐ (B) SELECT name  
FROM world  
WHERE name LIKE '%U'
- ☐ (C) SELECT name  
FROM world  
WHERE name LIKE '%u%'
- ☐ (D) SELECT name  
FROM world  
WHERE name LIKE U
- ☒ (E) SELECT name  
FROM world  
WHERE name LIKE 'U%'
- ☐ (F) I don't know

**4. Assume the data pictured was stored in a table named "person".**

**What would be the first name of the person in the second row returned by the following query:**

```
SELECT first_name, last_name  
FROM person  
ORDER BY last_name DESC, first_name;
```

- ☐ A Sarah
- ☒ B Gary
- ☐ C Alice
- ☐ D Barb
- ☐ E John
- ☐ F Michael
- ☐ G I don't know

first_name	last_name	gender	state_of_residence
Sarah	Baker	female	PA
Gary	Smith	male	PA
Alice	Woodard	female	OH
Barb	Green	female	OH
John	Smith	male	PA
Michael	Baker	male	OH

✓ 5. Assume the data pictured is stored in a table named "person".

How many rows would be returned by the following query:

```
SELECT last_name, count(*)
FROM person
GROUP BY last_name;
```

4

first_name	last_name	gender	state_of_residence
Sarah	Baker	female	PA
Gary	Smith	male	PA
Alice	Woodard	female	OH
Barb	Green	female	OH
John	Smith	male	PA
Michael	Baker	male	OH

✓ 6. Assume the data pictured is stored in a table named "person".

How many rows would be returned by the following query:

```
SELECT state_of_residence, gender, count(*)
FROM person
GROUP BY state_of_residence, gender;
```

4

first_name	last_name	gender	state_of_residence
Sarah	Baker	female	PA
Gary	Smith	male	PA
Alice	Woodard	female	OH
Barb	Green	female	OH
John	Smith	male	PA
Michael	Baker	male	OH

✓ 7. Which column represents the foreign key in the Wages table?

- ☐ A Wage\_Id
- ☒ B Employee\_Id
- ☐ C HourlyRate
- ☐ D TaxRate
- ☐ E I don't know

Employee			
Employee_Id	First_Name	Last_Name	Department
10001	Linda	Mojito	Sales
10002	Chuck	Powers	Finance
10003	Heartless	John	HR
10004	Indiana	Jones	Sales
Wages			
Wage_Id	Employee_Id	HourlyRate	TaxRate
1	10001	25	20%
2	10002	20	25%
3	10003	25	15%
4	10004	30	20%
HoursWorked			
TimeCard_Id	Employee_Id	NormalHours	OvertimeHours
1	10001	36	0
2	10002	40	0
3	10003	45	5
4	10004	50	10
5	10001	44	4

✓ 8. What is the result of the following query?

```
SELECT Employee.Department, SUM(HoursWorked.NormalHours)
FROM Employee
INNER JOIN HoursWorked ON Employee.Employee_Id = HoursWorked.Employee_Id
GROUP BY Employee.Department
ORDER BY Employee.Department;
```

☐ A Finance 40  
HR 45  
Sales 36  
Sales 44  
Sales 50

☐ B Sales 130  
HR 45  
Finance 40

☒ C Finance 40  
HR 45  
Sales 130

☐ D Finance 40  
HR 45  
Sales 36

☐ E I don't know

Employee			
Employee_Id	First_Name	Last_Name	Department
10001	Linda	Mojito	Sales
10002	Chuck	Powers	Finance
10003	Heartless	John	HR
10004	Indiana	Jones	Sales
Wages			
Wage_Id	Employee_Id	HourlyRate	TaxRate
1	10001	25	20%
2	10002	20	25%
3	10003	25	15%
4	10004	30	20%
HoursWorked			
TimeCard_Id	Employee_Id	NormalHours	OvertimeHours
1	10001	36	0
2	10002	40	0
3	10003	45	5
4	10004	50	10
5	10001	44	4

✓ 9. True or False?

A Foreign Key column cannot contain the same value in more than one row (i.e. values must be unique).

☐ A True

☒ B False

☐ C I don't know

✓ 10. INSERT INTO person ( person\_id, first\_name, middle\_name, last\_name )  
VALUES ( 101, 'Emerson', 'Ralph', 'Waldo' );

```
SELECT first_name
FROM person
WHERE person_id = 101;
```

What value would be returned by the SELECT statement?

☐ A Ralph

☐ B Waldo

☒ C Emerson

☐ D I don't know

✓ 11. Assume the data pictured was stored in a table named "president".

How many rows would be left in the table after the following statement was run?

```
DELETE FROM president;
```

FIRST_NAME	LAST_NAME	NUMBER	TERM_BEGIN	TERM_END
George	Washington	1	1789-04-30	1797-03-04
John	Adams	2	1797-03-04	1801-03-04
Thomas	Jefferson	3	1801-03-04	1809-03-04
James	Madison	4	1809-03-04	1817-03-04
James	Monroe	5	1817-03-04	1825-03-04

- ✓ 12. Assume the data pictured was stored in a table named "president".

If the following UPDATE statement were run:

```
UPDATE president
SET number = number * 2;
```

What value would be returned by the following SELECT statement?

```
SELECT last_name
FROM president
WHERE number = 4;
```

Adams

FIRST_NAME	LAST_NAME	NUMBER	TERM_BEGIN	TERM_END
George	Washington	1	1789-04-30	1797-03-04
John	Adams	2	1797-03-04	1801-03-04
Thomas	Jefferson	3	1801-03-04	1809-03-04
James	Madison	4	1809-03-04	1817-03-04
James	Monroe	5	1817-03-04	1825-03-04

- ✓ 13. Assume the data pictured was stored in a table named "president".

If the following series of statements were run:

```
BEGIN TRANSACTION;
```

```
UPDATE president
SET number = number * 2;
```

```
ROLLBACK;
```

What value would be returned by the following SELECT statement?

```
SELECT last_name
FROM president
WHERE number = 4;
```

Madison

FIRST_NAME	LAST_NAME	NUMBER	TERM_BEGIN	TERM_END
George	Washington	1	1789-04-30	1797-03-04
John	Adams	2	1797-03-04	1801-03-04
Thomas	Jefferson	3	1801-03-04	1809-03-04
James	Madison	4	1809-03-04	1817-03-04
James	Monroe	5	1817-03-04	1825-03-04

- ✓ 14. If we use

A -> B

To represent that A has a dependency on B, which of the following is correct?

- (A) Database -> JDBC Driver -> JDBC -> Spring JDBC
- (B) Spring JDBC -> JDBC -> Database -> JDBC Driver
- (C) JDBC -> Spring JDBC -> JDBC Driver -> Database

☒ D Spring JDBC -> JDBC -> JDBC Driver -> Database

☐ E I don't know

✓ 15. Which of the following classes is provided by Spring JDBC for executing SQL statements and returning results?

☐ A PreparedStatement

☐ B Statement

☒ C JdbcTemplate

☐ D SqlRowSet

☐ E I don't know

✓ 16. `JdbcTemplate jdbcTemplate = new JdbcTemplate(dataSource);`

```
String sqlCreatePerson = "INSERT INTO person(middle_name, last_name, first_name)
VALUES (?, ?, ?)";
```

```
jdbcTemplate.update(sqlCreatePerson, "Stevie", "Ray", "Vaughan");
```

**What value would be inserted into the last\_name column by the code snippet above?**

☐ A Stevie

☒ B Ray

☐ C Vaughan

☐ D I don't know