

Module 2 - Week 1 Review

93% (14/15)

**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. Given a table called Books, write the SQL statement used to SELECT all columns from the table.**

```
SELECT * FROM Books
```

- ✓ 5. 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

- ✓ 6. 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

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

How many rows would be returned by the following query:

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

2

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

- ✓ 8. 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;
```

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

✓ 9. 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

✓ 10. 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

✓ 11. 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

- ✓ 12. 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

- ✓ 13. 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;
```

0

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. 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

- ✓ 15. 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