

# Modern Big Data Analysis with SQL

Coursera Specialisation (Offered by Cloudera)

Course-2: Analysing Big Data with SQL

Week-3: Core

Question-1: For which of these tasks would you need to use a WHERE clause?

Check all that apply.

Answer-1: For a table that includes which of many offices each employee works, finding all the employees in the Chicago office

For a table of inventory items, including quantity and price, finding all inventory items priced under \$5

Question-2: The following query will fail:

```
SELECT name, shop, aisle FROM fun.inventory WHERE price + 5;
```

What are the issues with this query? Check all that apply.

Answer-2: The expression in the WHERE clause must evaluate to a Boolean value

Question-3: Write and run a query on wax.crayons to find colors with 205 as the red value.

Which of the following colors are returned? Check all that apply.

Answer-3: Antique Brass

- Mahogany
- Silver
- Wisteria

Question-4: Select the expressions that are equivalent to  $x \neq 2$  in SQL. Check all that apply.

Answer-4: NOT  $x = 2$

- $x <> 2$
- $x < 2$  OR  $x > 2$

Question-5: Which of the following would include a row with  $bool1 = true$ ,  $bool2 = false$ , and  $bool3 = true$  in the result set? Check all that apply.

Answer-5: `SELECT * FROM table_name WHERE bool1 AND bool2 OR bool3`

`SELECT * FROM table_name WHERE NOT (bool1 AND bool2)`

`SELECT * FROM table_name WHERE NOT bool2 AND bool3`

Question-6: Which of the following would provide results that include a row with  $int\_x = -25$ ?

Check all that apply.

Answer-6: `SELECT * FROM table_name WHERE int_x BETWEEN -50 AND 0;`

`SELECT * FROM table_name WHERE int_x NOT IN (-50, 0)`

Question-7: The following shows just a few rows from a table for students in a school. (GPA is grade point average, where 4.0 means the student is getting the highest scores possible. Absences is how many days the student has not attended school, and detention is a punishment for bad behaviour.)

students

id	name	age	gpa	absences	detentions
930	Olufunmilayo Ayton	16	4.00	3	2
667	Vincent Michaelson	15	2.53	12	0
907	Asa Quigg	15	3.57	1	0
168	Kiran Patil	17	3.28	0	3
368	Amaal Al-Amin	16	4.00	NULL	2

Check all the students whose rows would be included in the results of  
 SELECT name FROM students WHERE absences < 2;

Answer-7: Asa Quigg

- Kiran Patil

Question-8: The offices table in the default database on the VM includes one row with NULL in state\_province column. Which of the following would provide that row in the result? Check all that apply.

Answer-8: SELECT \* from default.offices WHERE state\_province="Santa Fe" OR  
 state\_province IS NULL

SELECT \* from default.offices WHERE state\_province IS NULL

Question-9: The following shows Amaal Al-Amin's data from a table for students in a school. (GPA is grade point average, where 4.0 means the student is getting the highest scores possible. Absences is how many days the student has not attended school, and detention is a punishment for bad behavior.) Which of the following WHERE clauses would include Amaal's row when used in a SELECT query? Check all that apply.

id	name	age	gpa	absences	detentions
368	Amaal Al-Amin	16	4.00	NULL	2

Answer-9: WHERE gpa > 3.50 OR absences < 3

Question-10: You have a database in which some bad data in the column named score is marked with NULL and some is marked with the value -1. For your purposes, you can do more with values marked -1, so you want to replace all NULL values in the score column with -1 but otherwise leave the score values as they are. Which of the following will do this? Check all that apply.

Answer-10: ifnull(score, -1) Note: For some engines this is nvl(score, -1)

- CASE WHEN score IS NULL THEN -1 ELSE score END

- if(score IS NULL, -1, score)