Database Programming with SQL
3-1: Logical Comparisons and Precedence Rules
Practice Activities

Objectives

- Evaluate logical comparisons to restrict the rows returned based on two or more conditions
- Apply the rules of precedence to determine the order in which expressions are evaluated and calculated

Vocabulary

Identify the vocabulary word for each definition below.

not	Inverts the value of the condition
AND	Both conditions must be true for a record to be selected
Precedence Rules	Rules that determine the order in which expressions are evaluated and calculated
OR	Either condition can be true for a record to be selected

Try It / Solve It

1. Execute the two queries below. Why do these nearly identical statements produce two different results? Name the difference and explain why.

```
SELECT code, description
FROM d_themes
WHERE code >200 AND description IN('Tropical', 'Football', 'Carnival');

SELECT code, description
FROM d_themes
WHERE code >200 OR description IN('Tropical', 'Football', 'Carnival');
```

The first one will return rows where both the code is greater than 200 and the description matches one of the description while the second one is opposite

2. Display the last names of all Global Fast Foods employees who have “e” and “i” in their last names.

```
SELECT last_nameFROM employeesWHERE last_name LIKE '%e%' AND last_name LIKE '%i%';
```

3. I need to know who the Global Fast Foods employees are that make more than $6.50/hour and their position is not order taker.

```
SELECT last_name, position, salaryFROM employeesWHERE salary
> 6.50 AND position != 'order taker';
```

4. Using the employees table, write a query to display all employees whose last names start with “D” and have “a” and “e” anywhere in their last name.

5. In which venues did DJs on Demand have events that were not in private homes?

```
SELECT venue_nameFROM d_eventsWHERE venue_type != 'Private Home';
```

6. Which list of operators is in the correct order from highest precedence to lowest precedence?
   a. AND, NOT, OR
   b. NOT, OR, AND
   c. NOT, AND, OR

c

For questions 7 and 8, write SQL statements that will produce the desired output.

7. Who am I?
   I was hired by Oracle after May 1998 but before June of 1999. My salary is less than $8000 per month, and I have an “en” in my last name.

```
SELECT first_name, last_name
FROM employeesW
HERE hire_date > '1998-05-31' AND hire_date <
'1999-06-01'
AND salary < 8000  AND last_name LIKE '%en%';
```

8. What's my email address?
   Because I have been working for Oracle since the beginning of 1996, I make more than $9000 per month. Because I make so much money, I don't get a commission.

```
SELECT email
FROM employees
WHERE hire_date >= '1996-01-01'  AND salary > 9000  AND
commission_pct IS NULL;
```