EXERCISE-4

Writing Basic SQL SELECT Statements

Find the Solution for the following:

True OR False

1. The following statement executes successfully.

Identify the Errors

```
SELECT employee_id, last_name
sal*12 ANNUAL SALARY
FROM employees;
```

Queries

False

```
SELECT employee_id, last_name,
      sal * 12 AS "ANNUAL SALARY"
FROM employees;
```

2. Show the structure of departments the table. Select all the data from it.

```
-- Show the structure of the departments table
DESCRIBE departments;

-- Select all the data from the departments table
SELECT * FROM departments;
```

3. Create a query to display the last name, job code, hire date, and employee number for each employee, with employee number appearing first.

```
SELECT employee_number, last_name, job_code, hire_date
FROM employees;
```

4. Provide an alias STARTDATE for the hire date.

```
SELECT employee_number, last_name, job_code, hire_date AS STARTDATE
FROM employees;
```

5. Create a query to display unique job codes from the employee table.

```
SELECT DISTINCT job_code
FROM employees;
```

6. Display the last name concatenated with the job ID , separated by a comma and space, and name the column EMPLOYEE and TITLE.

```
SELECT CONCAT(last_name, ', ', job_id) AS "EMPLOYEE and TITLE"
FROM employees;
```

7. Create a query to display all the data from the employees table. Separate each column by a comma. Name the column THE_OUTPUT.

```
SELECT
    CONCAT_WS(', ', employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, commission_pct, manager_id, department_id) AS THE_OUTPUT
FROM employees;
```

Practice Questions

COMPARISON OPERATORS

1. Who are the partners of DJs on Demand who do not get an authorized expense amount?

SELECT partner_name FROM partners WHERE authorized_expense_amount IS NULL;

2. Select all the Oracle database employees whose last names end with “s”. Change the heading of the column to read Possible Candidates.

SELECT last_name AS "Possible Candidates" FROM employees WHERE last_name LIKE '%s';

3. Which statement(s) are valid?

a. WHERE quantity <> NULL;

b. WHERE quantity = NULL;

c. WHERE quantity IS NULL;

d. WHERE quantity != NULL;

c. WHERE quantity IS NULL;

4. Write a SQL statement that lists the songs in the DJs on Demand inventory that are type code 77, 12, or 1.

SELECT song_title

FROM d_songs

WHERE type_code IN (77, 12, 1);

Logical Comparisons and Precedence Rules

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');
```

```
-- Query 1
SELECT code, description FROM d_themes WHERE code > 200 AND description IN
('Tropical','Football', 'Carnival');
Query 2
SELECT code, description FROM d_themes WHERE code > 200 OR description IN ('Tropical',
'Football',
'Carnival');
```

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

```
SELECT last_name
FROM employees
WHERE 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 first_name, last_name
FROM employees
WHERE 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.

```
SELECT *FROM employees
WHERE last_name LIKE 'D%' AND last_name LIKE '%a%' AND last_name LIKE '%e%';
```

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

```
SELECT * FROM employees
WHERE last_name LIKE 'D%' AND last_name LIKE '%a%' AND last_name LIKE '%e%';
```

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. NOT, AND, OR

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_nam FROM employees WHERE 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;
```