Practice SQL WHERE Clause

This page provides exercises and solutions to help you practice SQL WHERE clause. These exercises are based on the Oracle HR schema, and may be performed online or by running the sample schema scripts on your local database server. For additional exercises in other subjects, use this link.

Exercises

1. Display the first name and department number for all customers whose last name is “De Haan” (*Employees* table).
2. Display all data from *Departments* table for Sales department (*department_name* column).
3. Display the first name, last_name, department number and salary for all employees who earn more than 9700 (*Employees* table).
4. Display all data from *Employees* table for all employees who was hired before January 1st, 1992.
5. Display the employee number, first name, job id and department number for all employees whose department number equals 20, 60 or 80 (*Employees* table).
6. Display the employee number, first name, job id and department number for all employees whose department number is not equal to 20, 60 and 80 (*Employees* table).
7. Display the last name, phone number, salary and manager number, for all employees whose manager number equals 100, 102 or 103 (*Employees* table).
8. Display the first name and salary for all employees whose first name ends with an *e* (*Employees* table).
9. Display the last name and department number for all employees where the second letter in their last name is *i* (*Employees* table).
10. Display all data from *Employees* table for all employees who have the

letters : L, J, or H in their last name. Sort the query in descending order by salary.

11. Display the first name, hire date, salary and department number for all employees whose first name doesn't have the letter *A*. Sort the query in ascending order by department number (*Employees* table).
12. Display all data from *Employees* table for all employees without any department number.
13. Display the first name concatenated with the last name, separated by comma, and salary, for all employees whose salary not in the range between 7000 and 15000. Sort the query in ascending order by the full name (*Employees* table).
14. Display the first name concatenated with the last name, separated by comma, the phone number concatenated with the email address, separated by hyphen, and salary, for all employees whose salary is in the range of 5000 and 10000. Name the column headings: "FULL_NAME", "CONTACTS" and "SAL" respectively (*Employees* table).
15. Display all data from *Employees* table for all employees whose:
    salary is in the range of 6000 and 800 **and** their commission is not null
    or
    department number is not equal to 80, 90 and 100 **and** their hire date is before January 1st, 1990.
16. Display last name, job id and hire date for all employees who was hired during December 12th, 1995 and April 17th, 1998.
17. Display the first name concatenated with last name, hire date, commission percentage, telephone, and salary for all employees whose salary is greater than 10000 **or** the third digit in their phone number equals 5. Sort the query in a descending order by the first name (*Employees* table).
18. Display the last name and salary for all employees who earn more than 12000 (*Employees* table).
19. Display the last name and department number for all employees whose department number is equal to 50 or 80. Perform this exercise once by using the IN operator, once by using the OR operator.
20. Display the first name and salary for all employees who doesn't earn any commission.

21. Display the first name, salary, and manager number for all employees whose manager number is not null.

Solutions – Oracle

These solutions apply to Oracle, for solutions that apply to SQL Server click here.

```
-- 1
SELECT first_name , department_id
FROM employees
WHERE last_name = 'De Haan'
-- 2
SELECT *
FROM  departments
WHERE department_name = 'Sales'
-- 3
SELECT first_name , last_name , department_id , salary
FROM employees
WHERE salary > 9700
-- 4
SELECT *
FROM employees
WHERE hire_date < '01-JAN-1992'
-- 5
SELECT employee_id , first_name , job_id, department_id
FROM employees
WHERE department_id IN (20 , 60 , 80)
-- 6
SELECT employee_id , first_name , job_id, department_id
FROM employees
WHERE department_id NOT IN (20 , 60 , 80)
-- 7
SELECT last_name , phone_number , salary , manager_id
FROM employees
WHERE manager_id IN (103 , 102 , 100)
-- 8
SELECT first_name , salary
FROM employees
```

```
WHERE first_name LIKE '%e'
-- 9
SELECT last_name , department_id
FROM employees
WHERE last_name LIKE '_i%'
-- 10
SELECT *
FROM employees
WHERE last_name LIKE '%L%'
OR    last_name LIKE '%J%'
OR    last_name LIKE '%H%'
ORDER BY salary DESC
-- 11.
SELECT first_name , hire_date , salary , department_id
FROM employees
WHERE first_name NOT LIKE '%A%'
ORDER BY department_id
-- 12
SELECT *
FROM employees
WHERE department_id IS NULL
-- 13
SELECT first_name || ' '|| last_name , salary
FROM  employees
WHERE salary NOT BETWEEN 7000 AND 15000
ORDER BY first_name || ' '|| last_name
-- 14
SELECT first_name || ' '|| last_name AS "FULL_NAME" ,
       phone_number || ' - ' || email AS "CONTACTS",
       salary  AS "SAL"
FROM employees
WHERE salary BETWEEN 5000 AND 10000
-- 15
SELECT *
FROM employees
WHERE salary BETWEEN 6000 AND 8000 AND commission_pct IS NOT
OR
      department_id NOT IN (80 , 90 , 110) AND  hire_date <
OR
```

```
      phone_number LIKE '__5%'
ORDER BY first_name DESC
-- 18
SELECT last_name , salary
FROM employees
WHERE salary > 12000
-- 19
SELECT  last_name, department_id
FROM employees
WHERE department_id = 50 OR department_id = 80;
--
SELECT  last_name, department_id
FROM employees
WHERE department_id IN (50 , 80)
-- 20
SELECT first_name , salary
FROM  employees
WHERE commission_pct IS NULL
-- 21
SELECT first_name , salary , manager_id
FROM employees
WHERE manager_id IS NOT NULL
```

Solutions – SQL Server

```
-- 1
SELECT first_name , department_id
FROM employees
WHERE last_name = 'De Haan'
-- 2
SELECT *
FROM  departments
WHERE department_name = 'Sales'
-- 3
SELECT first_name , last_name , department_id , salary
FROM employees
WHERE salary > 9700
-- 4
SELECT *
```

```
FROM employees
WHERE hire_date < '1992-01-01'
-- 5
SELECT employee_id , first_name , job_id, department_id
FROM employees
WHERE department_id IN (20 , 60 , 80)
-- 6
SELECT employee_id , first_name , job_id, department_id
FROM employees
WHERE department_id NOT IN (20 , 60 , 80)
-- 7
SELECT last_name , phone_number , salary , manager_id
FROM employees
WHERE manager_id IN (103 , 102 , 100)
-- 8
SELECT first_name , salary
FROM employees
WHERE first_name LIKE '%e'
-- 9
SELECT last_name , department_id
FROM employees
WHERE last_name LIKE '_i%'
-- 10
SELECT *
FROM employees
WHERE last_name LIKE '%L%'
OR    last_name LIKE '%J%'
OR    last_name LIKE '%H%'
ORDER BY salary DESC
-- 11.
SELECT first_name , hire_date , salary , department_id
FROM employees
WHERE first_name NOT LIKE '%A%'
ORDER BY department_id
-- 12
SELECT *
FROM employees
WHERE department_id IS NULL
-- 13
```

```
SELECT first_name + ' '+ last_name , salary
FROM  employees
WHERE salary NOT BETWEEN 7000 AND 15000
ORDER BY first_name + ' '+ last_name
-- 14
SELECT first_name + ' '+ last_name AS 'FULL_NAME' ,
       phone_number + ' - ' + email AS 'CONTACTS',
       salary  AS 'SAL'
FROM employees
WHERE salary BETWEEN 5000 AND 10000
-- 15
SELECT *
FROM employees
WHERE salary BETWEEN 6000 AND 8000 AND commission_pct IS NOT
OR
      department_id NOT IN (80 , 90 , 110) AND  hire_date <
OR
      phone_number LIKE '__5%'
ORDER BY first_name DESC
-- 18
SELECT last_name , salary
FROM employees
WHERE salary > 12000
-- 19
SELECT  last_name, department_id
FROM employees
WHERE department_id = 50 OR department_id = 80;
--
SELECT  last_name, department_id
FROM employees
WHERE department_id IN (50 , 80)
-- 20
SELECT first_name , salary
FROM  employees
WHERE commission_pct IS NULL
-- 21
SELECT first_name , salary , manager_id
FROM employees
WHERE manager_id IS NOT NULL
```

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