EXERCISE-5

Restricting and Sorting data

After the completion of this exercise, the students will be able to do the following:

- Limit the rows retrieved by the queries
- Sort the rows retrieved by the queries
-

Limiting the Rows selected

- Using WHERE clause
- Alias cannot used in WHERE clause

Syntax

SELECT----------
FROM----------
WHERE condition;

Example:

SELECT employee_id,last_name, job_id, deparment_id FROM employees WHERE department_id=90;

Character strings and Dates

Character strings and date values are enclosed in single quotation marks.

Character values are case sensitive and date values are format sensitive.

Example:

SELECT employee_id,last_name, job_id, deparment_id FROM employees
WHERE last_name='WHALEN";

Comparison Conditions

All relational operators can be used. (=, >, >=, <, <= ,<>,!=)

Example:

SELECT last_name, salary
FROM employees
WHERE salary<=3000;

Other comparison conditions

Operator	Meaning
BETWEEN …AND…	Between two values
IN	Match any of a list of values
LIKE	Match a character pattern
IS NULL	Is a null values

Example:1

Find the Solution for the following:

1. Create a query to display the last name and salary of employees earning more than 12000.

```
select last_name, salary from employees where salary>12000;
```

2. Create a query to display the employee last name and department number for employee number 176.

```
select last_name, department_id from employees where
employee_id =176;
```

3. Create a query to display the last name and salary of employees whose salary is not in the range of 5000 and 12000. (hints: not between)

```
select last_name, salary from employees where salary not between
5000 and 12000;
```

4. Display the employee last name, job ID, and start date of employees hired between February 20,1998 and May 1,1998.order the query in ascending order by start date.(hints: between)

```
select last_name, job_id, hire_date from employees where
hire_date between '1998-02-20' and '1998-05-01' order by
hire_date;
```

5. Display the last name and department number of all employees in departments 20 and 50 in alphabetical order by name.(hints: in, orderby)

```
Select last_name and dept_id from employees where
department id between 20 and 50 order by first_name;
```

6. Display the last name and salary of all employees who earn between 5000 and 12000 and are in departments 20 and 50 in alphabetical order by name. Label the columns EMPLOYEE, MONTHLY SALARY respectively.(hints: between, in)

```
Select last_name as EMPLOYEE, salary as 'MONTHLY SALARY'
from employees where salary between 5000 and 12000
and department_id between 20 and 50 order by first_name;
```

7. Display the last name and hire date of every employee who was hired in 1994.(hints: like)

```
Select last_name, hire_date from employees where
hire_date like "1994%.";
```

8. Display the last name and job title of all employees who do not have a manager.(hints: is null)

```
Select last_name, job_id from employees where
manager_id is NULL;
```

9. Display the last name, salary, and commission for all employees who earn commissions. Sort data in descending order of salary and commissions.(hints: is not nul,orderby)

```
select last_name, salary, commission_pct from employees
whe commission_pct is not NULL order by salary and
commission_pct desc;
```

10. Display the last name of all employees where the third letter of the name is *a*.(hints:like)

```
select last_name from employees where last name
like "__a%.";
```

11. Display the last name of all employees who have an a and an *e* in their last name.(hints: like)

```
Select last_name from employees where last_name like
"%a%e";
```

12. Display the last name and job and salary for all employees whose job is sales representative or stock clerk and whose salary is not equal to 2500 ,3500 or 7000.(hints:in,not in)

```
Select last_name, salary, job_id from employees where
job_id in('sales representative', 'stock clerk') and salary
not in (2500,3500,7000);
```

13. Display the last name, salary, and commission for all employees whose commission amount is 20%.(hints:use predicate logic)

```
Select last_name, salary, commission_pct
from employees where commission_pct = salary*0.2;
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	8/9/25

Pracice Questions

Sorting Rows

1. In the example below, assign the employee_id column the alias of "Number." Complete the SQL statement to order the result set by the column alias.

SELECT employee_id, first_name, last_name FROM employees;

Select employee_id as 'Number', fiist_name, last_name from employee order by 'number';

2. Create a query that will return all the DJs on Demand CD titles ordered by year with titles in alphabetical order by year.

Select title, year from d_cds order by year, title;

3. Order the DJs on Demand songs by descending title. Use the alias "Our Collection" for the song title.

Select long_title as 'Our collection' from d_songs order by song title desc;

4. Write a SQL statement using the ORDER BY clause that could retrieve the information needed.

Select id, first_name, last name, salary from l_staffs ORDER BY salary DESC, last_name;