AIM: To limit and sort the retrived data. Date: 1/9/25

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

```
OR job_id='ad_pres'
AND salary>15000;
```

Example:2

```
SELECT employee_id, last_name, salary , job_id
FROM employees
WHERE (job_id ='sa_rep'
OR job_id='ad_pres')
AND salary>15000;
```

Sorting the rows

Using ORDER BY Clause

ASC-Ascending Order,Default

DESC-Descending order

Example:1

```
SELECT last_name, salary , job_id,department_id,hire_date
FROM employees
ORDER BY hire_date;
```

Example:2

```
SELECT last_name, salary , job_id,department_id,hire_date
FROM employees
ORDER BY hire_date DESC;
```

Example:3

Sorting by column alias

```
SELECT last_name, salary*12 annsal , job_id,department_id,hire_date
FROM employees
ORDER BY annsal;
```

Example:4

Sorting by Multiple columns

```
SELECT last_name, salary , job_id,department_id,hire_date
FROM employees
ORDER BY department_id, salary DESC;
```

Find the Solution for the following:

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

Select l_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 l_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 employee

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 l_name, job_id, hire_date FROM employees
WHERE hire_date Between '20-FEB-1998' AND
'01-MAY-1998' 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 l_name, department_id FROM employees
WHERE department_id IN(20,50) ORDER BY
last_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 l_name AS Employee, salary AS "MONTHLY
SALARY" FROM employees WHERE salary between
5000 AND 12000 AND department_id IN(20,50)
ORDER BY last_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 l_name, salary, commision_pct FROM employees
WHERE commision_pct is NOT NULL ORDER BY
Salary DESC, commision_pct DESC;
```

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

```
Select l_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 l_name FROM employees WHERE
l_name like '%a%e%' OR last_name like '%e%a%';
```

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 l_name, job_id, salary FROM employees
WHERE job_id IN('SA_REP', 'ST_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 l_name, salary, commision_pct FROM employees
WHERE comission_pct = 0.20;
```

1) Output:

last_name	salary
Prashanth	24000.00
Kumar	17000.00
Vijay	17000.00

2) Output:

l_name	department_id
Rohith	60

3) Output:

last_name	salary
Kumar	24000.00
Rohith	17000.00
Prasanth	17000.00
Vijay	17000.00

4) output:

l_name	job_id	hire_date
Kumar	AC_Account	21-Mar-1997
Vijay	AC_MGR	07-Apr-1998
Rohith	SA_REP	24-Apr-1998

5) Output:

l_name	dept_id
Abel	50
Ande	50
Grietz	20
Higgins	50

6) Output:

Employee	Monthly Salary
Abel	11000.00
Ande	6000.00
Grietz	6000.00

7) Output:

l_Name	Hire_date
Russell	01-OCT-1994
Kochlar	21-SEP-1994
Patalvanda	12-MAR-1994

8) Output:

l_Name	job_id
Kumar	AD_PRES
Rohith	AD_VP
Prashanth	AD_VP

9)

l_name	salary	commission_pct
kumar	111000.00	0.10
Rohith	105000.00	0.20
Sai	205000.00	0.30

10)

l_Name
Dravid
Prasanth
Prajith

(1) Output:

l_name
Angel
Allen
Praveen

(2) Output:

l_name	job_id	Salary
Grant	SA_REP	18000.00
Patabanda	ST_CLERK	6000.00

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	

RESULT:

Thus the rows are retrieved by limiting and sorting.

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, first_name, last_name
from employees 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 djs_on_demand ORDER BY
year, title;
```

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

```
Select song_title AS "Our Collection" FROM
djs_on_demand_songs ORDER BY SONG_title DESC;
```

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

```
select * FROM employees ORDER BY last_name,
first_name;
```