DQL-DATA QUERY LANGUAGE

DQL is used to retrieve the data from the database.

SELECT:

"It is used to retrieve the data from the table and display it".

- PROJECTION: "It is a process of retrieving the data by selecting only the columns is known as Projection".
- SELECTION: "It is a process of retrieving the data by selecting both the columns and rows is known as Selection ".

Example:

1. Write a query to display first_names of all the employees.

➢ SELECT first_name FROM employees;

2. WAQTD details of all the employees from employees table.

➢ SELECT * FROM employees;

DISTINCT Clause:

" It is used to remove the duplicate or repeated values from the Result table ".

Example:

Consider a STUDENT table which has SID,SNAME,BRANCH,PER Attributes.

SID	SNAME	BRANCH	PER
1	A	ECE	60
2	B	CSE	75
3	C	ME	50
4	D	ECE	80
5	C	CSE	75
6	E	CIVIL	95

SELECT DISTINCT SNAME FROM STUDENT;

As we used distinct on sname so it will remove duplicate values of sname.

i.e. C will remove from result table as shown below.

SNAME
A
B
C
D
E

SELECT DISTINCT BRANCH, PER FROM STUDENT;

Here distinct is applied on both the branch and per column. and the duplicate combination values for both the column will removed.

BRANCH	PER
ECE	60
CSE	75
ME	50
ECE	80
CIVIL	95

ALIAS:

"It is an alternate name given to a Column or an Expression In the result table ".

Example:

1. WAQTD annual salary for all the employees.
   - Select sal*12 Annual_Salary FROM employees;

2. WAQTD name and salary of employee with a deduction 32%.
   - Select Ename , sal-sal*32/100 as deduction From employees ;

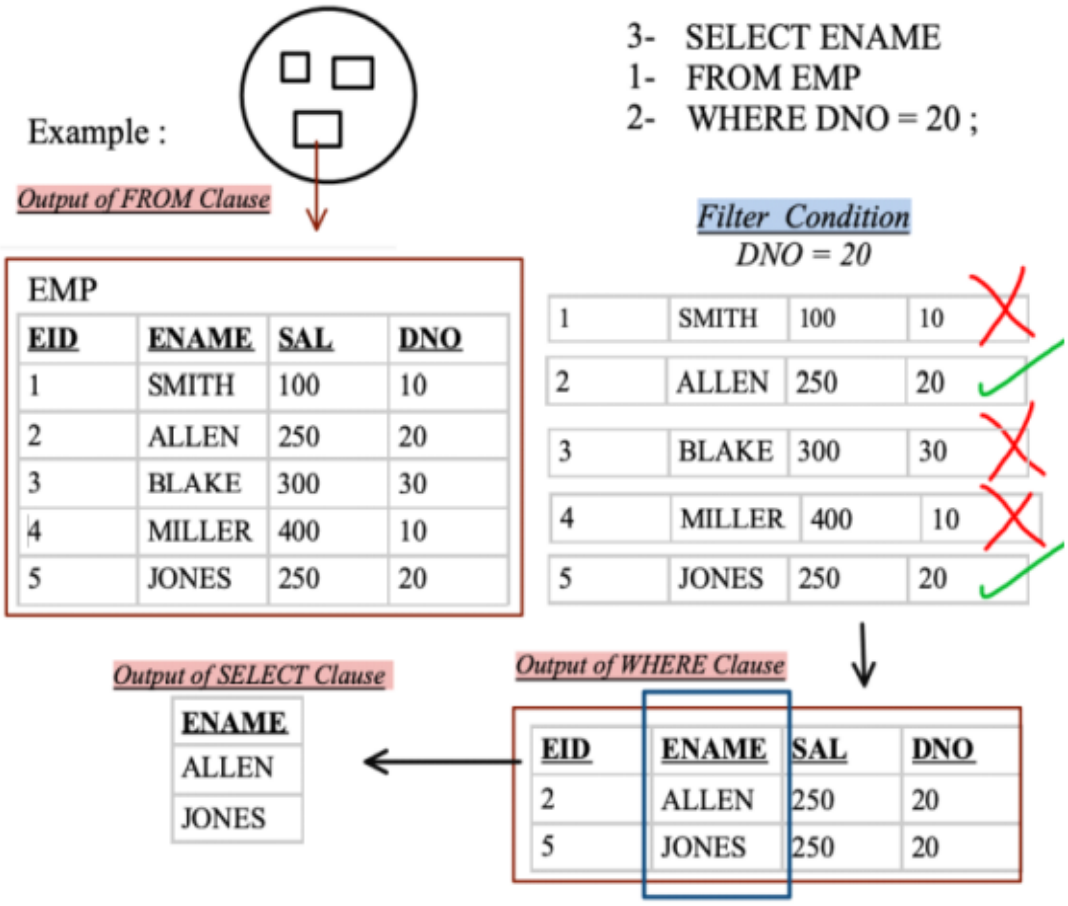
WHERE Clause:

"Where clause is used to filter the records ".

Example:

1 WAQTD names of the employees working in dept 20

- SELECT SNAME FROM EMP WHERE DNO=20;



ORDER BY Clause:

The ORDER BY clause is used to sort the result set returned by a SELECT statement. It allows you to specify the order in which the rows should be displayed in the result set based on one or more columns.

The default sorting of order by clause is in the ascending order.

Example:

1. SELECT * FROM employees ORDER BY last_name ASC;
2. You can also sort by multiple columns. For instance, if you want to sort by last_name in ascending order and then by first_name in descending order, you would use:

   SELECT * FROM employees ORDER BY last_name ASC, first_name DESC;

LIMIT Clause:

The LIMIT clause is used to restrict the number of rows returned by a SELECT statement. It is particularly useful when dealing with large datasets or when you only need to see a subset of the results.

Example:

1. If you have a employees table and you want to retrieve the first 10 rows from the table, you would use the following query:

- SELECT * FROM employees LIMIT 10;

You can also use an optional **offset** with LIMIT to skip a certain number of rows before starting to return rows.

2. If you want to retrieve the next 10 rows (rows 11 to 20), you can use an offset:

- SELECT * FROM employees LIMIT 10 OFFSET 10;
  OR
- SELECT * FROM employees LIMIT 10, 10;

3. The query to return the top 5 employees with the highest salary.

- SELECT * FROM employees ORDER BY salary DESC LIMIT 5;