

DAY 5

Wednesday, July 22, 2020 9:02 AM

OVERVIEW OF SQL STATEMENTS :

1. DATA DEFINITION LANGUAGE (DDL)
2. DATA MANIPULATION LANGUAGE (DML)
3. TRANSCATION CONTROL LANGUAGE (TCL)
4. DATA CONTROL LANGUAGE (DCL)
5. DATA QUERY LANGUAGE (DQL)

DATA QUERY LANGUAGE (DQL):

"DQL is used to retrieve the data from the database " .

It had 4 statements :

1. SELECT
2. PROJECTION
3. SELECTION
4. JOIN

1. **SELECT** : "It is used to retrieve the *data* from the table and display it.
2. **PROJECTION** : "It is a process of retrieving the data by *selecting only the columns* is known as Projection " .
 - In projection all the records / values present in a particular column are by default selected .
3. **SELECTION** : "It is a process of retrieving the data by *selecting both the columns and rows* is known as Selection " .
4. **JOIN** : "It is a process of retrieving the data from *Multiple tables* simultaneously is known as Join " .

PROJECTION

- "It is a process of retrieving the data by *selecting only the columns* is known as Projection " .
- In projection all the records / values present in a particular column are by default selected .

SYNTAX :

```
SELECT * / [DISTINCT] Column_Name / Expression [ALIAS]  
FROM Table_Name ;
```

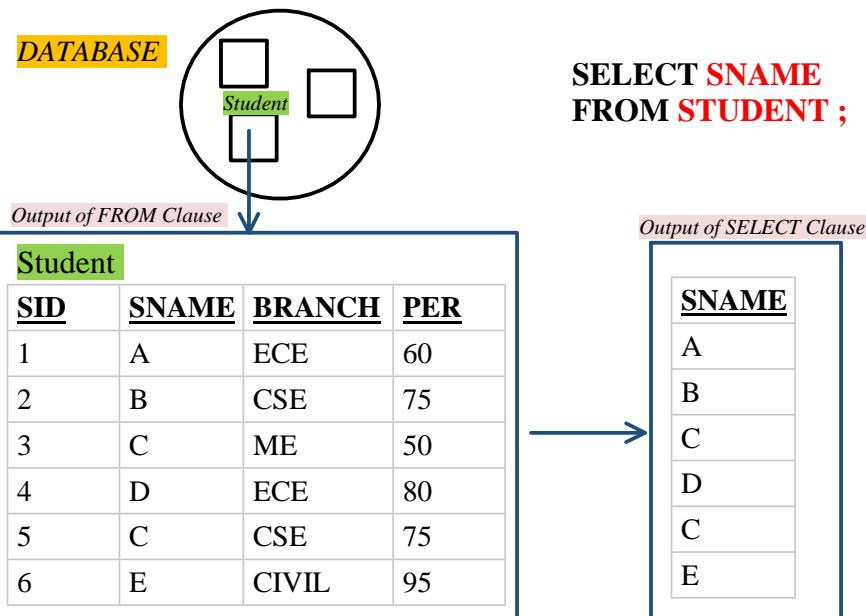
ORDER OF EXECUTION

1. FROM Clause
2. SELECT Clause

Example : Write a query to display names of all the students .



Example : Write a query to display names of all the students .



NOTE :

- FROM Clause starts the execution .
 - For FROM Clause we can pass Table_Name as an argument .
 - The job of FROM Clause is to go to the Database and search for the table and put the table under execution .
 - SELECT Clause will execute after the execution of FROM Clause
 - For SELECT Clause we pass 3 arguments
 - ◆ *
 - ◆ Column_Name
 - ◆ Expression
 - The job of SELECT Clause is to go the table under execution and select the columns mentioned .
 - SELECT Clause is responsible for preparing the result table .
 - Asterisk(*) : it means to select all the columns from the table .
 - Semicolon : it means end of the query .
 - WAQTD student id and student names for all the students.
- SELECT SID , SNAME
FROM STUDENT ;**
- WAQTD name and branch of all the students .
- SELECT SNAME , BRANCH
FROM STUDENT ;**
- WAQTD NAME , BRANCH AND PERCENTAGE FOR ALL THE STUDENTS .
- SELECT SNAME , BRANCH , PER
FROM STUDENT ;**
- WAQTD details of all the students from students table .

SELECT *
FROM STUDENT ;

- WAQTD sname , sid , per , branch of all the students .

SELECT SNAME , SID , PER , BRANCH
FROM STUDENT ;

EMP Table :

| EMPNO | ENAME | JOB | HIREDATE | MGR | SAL | COMM | DEPTNO |
|-------|--------|-----------|-----------|------|------|------|--------|
| 7369 | SMITH | CLERK | 17-DEC-80 | 7902 | 800 | | 20 |
| 7499 | ALLEN | SALESMAN | 20-FEB-81 | 7698 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 22-FEB-81 | 7698 | 1250 | 500 | 30 |
| 7566 | JONES | MANAGER | 02-APR-81 | 7839 | 2975 | | 20 |
| 7654 | MARTIN | SALESMAN | 28-SEP-81 | 7698 | 1250 | 1400 | 30 |
| 7698 | BLAKE | MANAGER | 01-MAY-81 | 7839 | 2850 | | 30 |
| 7782 | CLARK | MANAGER | 09-JUN-81 | 7839 | 2450 | | 10 |
| 7788 | SCOTT | ANALYST | 19-APR-87 | 7566 | 3000 | | 20 |
| 7839 | KING | PRESIDENT | 17-NOV-81 | | 5000 | | 10 |
| 7844 | TURNER | SALESMAN | 08-SEP-81 | 7698 | 1500 | 0 | 30 |
| 7876 | ADAMS | CLERK | 23-MAY-87 | 7788 | 1100 | | 20 |
| 7900 | JAMES | CLERK | 03-DEC-81 | 7698 | 950 | | 30 |
| 7902 | FORD | ANALYST | 03-DEC-81 | 7566 | 3000 | | 20 |
| 7934 | MILLER | CLERK | 23-JAN-82 | 7782 | 1300 | | 10 |

- **WAQTD name salary and commission given to all the employees .**

*Select ename , sal , comm
From emp ;*

- **WAQTD name of the employee along with their date of joining .**

*Select ename , hiredate
From emp ;*

DEPT :

| DEPTNO | DNAME | LOC |
|--------|------------|----------|
| 10 | ACCOUNTING | NEW YORK |
| 20 | RESEARCH | DALLAS |
| 30 | SALES | CHICAGO |
| 40 | OPERATIONS | BOSTON |

- **WAQTD dname and location for all the depts .**

*Select dname , loc
From dept ;*

QUESTIONS ON EMP AND DEPT TABLE:

- 1.WRITE A QUERY TO DISPLAY ALL THE DETAILS FROM THE

EMPLOYEE TABLE.

- 2.WAQTD NAMES OF ALL THE EMPLOYEES.
- 3.WAQTD NAME AND SALARY GIVEN TO ALL THE EMPLOYEES.
- 4.WAQTD NAME AND COMMISSION GIVEN TO ALL THE EMPLOYEES.
- 5.WAQTD EMPLOYEE ID AND DEPARTMENT NUMBER OF ALL THE EMPLOYEES IN EMP TABLE.
- 6.WAQTD ENAME AND HIREDATE OF ALL THE EMPLOYEES .
- 7.WAQTD NAME AND DESIGNATION OF ALL THE EMPLPOYEEES .
- 8.WAQTD NAME , JOB AND SALARY GIVEN ALL THE EMPLOYEES.
- 9.WAQTD DNAMES PRESENT IN DEPARTMENT TABLE.
- 10.WAQTD DNAME AND LOCATION PRESENT IN DEPT TABLE.

Assignments have to Mailed TO : ro.helpmate@gmail.com

Subject : QCDM34 DAY 5 ASSIGNMENT

Name : Your Name

Mail ID : ro.helpmate@gmail.com

Batch Code : QCDM34

Phone : 9876543210

Please find the attachment below .

Thank You ,
Yours Faithfully ,
Rohan Singh R .

DISTINCT Clause

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

- Distinct clause has to be used As the first argument to select clause .
- We can use multiple columns As an argument to distinct clause, it will remove the combination of columns in which the records are duplicated .

Example :

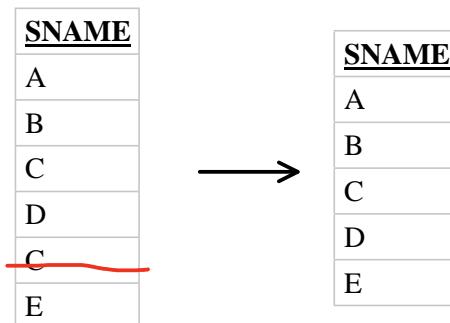
Student

| 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 |

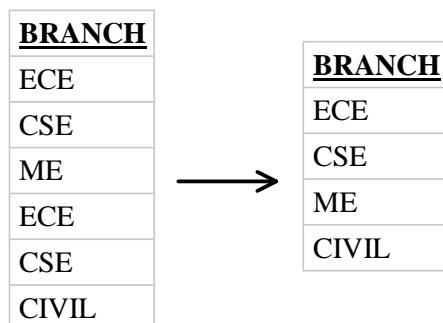
- SELECT SNAME
FROM STUDENT ;

| <u>SNAME</u> |
|--------------|
| A |
| B |
| C |
| D |
| C |
| E |

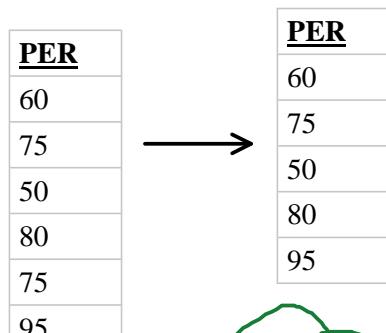
- SELECT DISTINCT SNAME
FROM STUDENT ;



- SELECT DISTINCT BRANCH
FROM STUDENT ;



- SELECT DISTINCT PER
FROM STUDENT ;



- SELECT DISTINCT BRANCH , PER

FROM STUDENT ;

| <u>BRANCH</u> | <u>PER</u> |
|---------------|------------|
| ECE | 60 |
| CSE | 75 |
| ME | 50 |
| ECE | 80 |
| CSE | 75 |
| CIVIL | 95 |

| <u>BRANCH</u> | <u>PER</u> |
|---------------|------------|
| ECE | 60 |
| CSE | 75 |
| ME | 50 |
| ECE | 80 |
| CIVIL | 95 |