

DAY 5

Wednesday, July 22, 2020 9:02 AM

OVERVIEW OF SQL STATEMENTS :

1. DATA DEFINITION LANGUAGE (DDL)
2. DATA MANIPULATION LANGUAGE (DML)
3. TRANSACTION 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 has 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

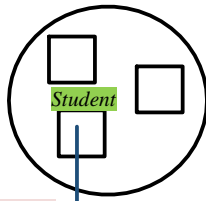
Example : Write a query to display names of all the students .

DATABASE



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

DATABASE



**SELECT SNAME
FROM STUDENT ;**

Output of FROM Clause

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

Output of SELECT Clause

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

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 :

<u>DEPTNO</u>	<u>DNAME</u>	<u>LOC</u>
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 EMPLOYEES .

8.WAQTD NAME , JOB AND SALARY GIVEN ALL THE EMPLOYEES.

9.WAQTD DNAME 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 " .

Example :

Student

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

- 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 .

- SELECT SNAME
FROM STUDENT ;

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

- SELECT **DISTINCT** SNAME
FROM STUDENT ;

<u>SNAME</u>		<u>SNAME</u>
A		A
B		B
C		C
D		D
C	→	E
E		

- SELECT DISTINCT BRANCH
FROM STUDENT ;

<u>BRANCH</u>		<u>BRANCH</u>
ECE		ECE
CSE		CSE
ME		ME
ECE	→	CIVIL
CSE		
CIVIL		

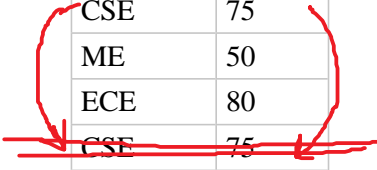
- SELECT DISTINCT PER
FROM STUDENT ;

<u>PER</u>		<u>PER</u>
60		60
75		75
50		50
80		80
75		95
95		

- 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