OVERVIEW OF SQL

SQL Language is Sub divded into 5 Langar

DATA DEFINATION LANGUAGE (DDL)

DATA Manipulation Language (DML)

Transaction Control Language (TCL)

DATA Control Language (DCL)

DATA QUERY LANGUAGE (DQL)

DATA QUERY LANGUAGE

This Language is used to Retrive the DATA from DATABASE

It has Four Statement

- Select
- Projection
- Selection
- ~~Joins~~
- JOINS

Select:

This statement is used to retrive and display the DATA

Projection:

The process of retriving DATA by Selecting only the Column is known as projection

In projection All DATA under the Columns ~~Sel~~ will be Selected by Default.

Selection

The process of ~~retrieving~~ Retreving DATA by selecting both Rows and Colouns is known as Selection

Joins

The process of retriving DATA From multiple Table Simuntaneously is known as Joins

PROJECTION:

The process of Retriving DATA by selecting only the Column is known as Projection

In projection All DATA under the Column will be Selected by Default.

SYNTAX : SELECT * / [DISTINCT] Column name

Expression [ALIAS]

FROM Table name;

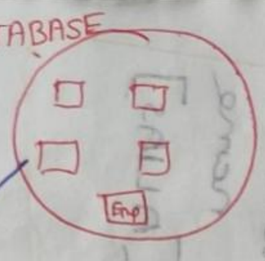
Select SAL

From Emp;

Select } keywords
From } statement
clauses

Order of Execution:

① From
② Select



Output of FROM clause

Emp

Emp NO	E NAME	SAL	D NO
1	DIVYA	1000	10
2	Jasim	3000	30
3	Giri	3500	20
4	Malathi	4000	10
5	Akkilash	1800	20
6	Arun	1200	30

Output of SELECT Clause

SAL
1000
3000
3500
4000
1800
1200

* FROM clause starts the execution

* In FROM clause we can pass table name as argument (Input)

* The Work of From Clause is to go to Database and search for Table. If the table is present It put the table under Execution

* Select clause execute after FROM Clause

* For SELECT clause we can pass 3 arguments are inputs

1) Asterisk (*)
2) Column_name
3) Expression

* SELECT Clause will go to table under execution and check for the column mentioned and it SELECT and display the Result

* SELECT Clause is Responsible for Production of Result Table

*

1) Asterisk (*)

(*) it means select all the column from the table

2) ;

; it means end of the statement

are QUERY

WAQTD (~~Write~~

Emp Name

WAQTD

Emp Name Emp NO SALARY and department number from all the Employes.

```
Select EName, EMPNO, SAL, DEPTNO
FROM EMP;
```

WAQTD

All the Details of Employee

```
Select *
From EMP;
```

WAQTD

Emp Name, Salery, Commission for all the Employe

```
Select EName, SAL, COMM
From Emp;
```

WAQTD

Emp NO, Emp name, ~~design~~ Designation for all employe

```
Select   Emp NO  Ename  Job
From     Emp;
```

WAQTD

Emp NO, E Name, Job, hire date, salery, Commision, Dept no for all the employe

WAQTD

Dept name present in Dept Table

```
Select DName
From Dept;
```

WAQTD

Dept Name, location Present in Dept table

```
Select DName, location
From Dept;
```

Expression :

Any statement which gives us result is known as expression. or expression is Combination of operator and Operents

Operator

These are the sympol use for operation

* + − / } operator

Operents :

These are the values which we pass for Operation

Operents are also known as values are ~~Litrels~~ Litorals

Literals:

we have three types of literals

Character Literals
DATE Literals
Number Literals

NOTE:

1) SQL is case Insensitive Language
(use upper case or Lower case)

2.) Character and Date literals are case sensitive and they should written in single Quotes ` '

3) we have two formet for expression

i) coloomn name operator value
ii) Column name operator Column name

Operator

Sal x 12

operents / Literals / values

WAQTD

Emp name ~~along~~ salary along with annual salary for all the employe

WAQTD

All the details of the employe along with annual salary ~~with~~ employe

* → We can't use any other column ~~as~~ name along with asterisk, whenever we want an additional column along with all the details we use [table name . *]

Here . works as Access Operators

```
Select Emp.*, Sal*12
From Emp;
```

WAQTD

Emp name, salary, 10 % hike in annual salary

Select Ename, sal, $Sal*12 + \left(Sal*12 * \frac{10}{100}\right)$

ALIAS :

ALIAS is a alternative ~~na~~ name used for Column name or expression

We can use ALIAS name with or without using the keyword AS

ALIAS Name should be always a Single String or should be seperated with the help of _

If we want Space between the string then be used within double Quote " "

```
Select Sal*2 "Annual-SAL"
From Emp;
```