Dt:20.03.2024

# SQL Training Session – 5

***Topics Covered:***

1. SQL Select Queries
2. Select Statement with Where condition/clause
3. Update inserted records

**SQL Select Statement (Queries):**

The Select statement is the most commonly used command in SQL. It is used to access the records from one or more database tables and views. It also retrieves the selected data that follow the condition we want.

By using this command, we can also access the particular record from the particular column of the table. The table which stores the record returned by the SELECT statement is called a result-set.

**Syntax:** SELECT column1, column2, ...FROM table\_name;

* Here, column1, column2 are the column/field names of the table you want to select data from.
* The table\_name represents the name of the table you want to select data from.

If we want to access all rows from all fields of the table, the syntax is as follows:

**Syntax:** SELECT \* FROM table\_name;

**EX:** CREATE TABLE Student (

Student\_id Int PRIMARY KEY,

First\_Name varchar (20),

Address varchar (20),

Age Int NOT NULL,

Percentage Int NOT NULL,

Grade varchar (10)

);

INSERT INTO Student VALUES (201, Akash, Delhi, 18, 89, A2),

(202, Bhavesh, Kanpur, 19, 93, A1),

(203, Yash, Delhi, 20, 89, A2),

(204, Bhavna, Delhi, 19, 78, B1);

The following query displays all the values of each column from the above Student table:

* SELECT \* FROM Student;

The following query displays the values of particular column from the above Student table:

* SELECT Student\_Id, Age, Percentage, Grade FROM Student;

*Ref:* [*https://www.javatpoint.com/sql-select*](https://www.javatpoint.com/sql-select)

**SQL SELECT Statement with WHERE clause/condition:**

The WHERE clause is used with SELECT statement to return only those rows from the table, which satisfy the specified condition in the query.

In SQL, the WHERE clause is not only used with SELECT, but it is also used with other SQL statements such as UPDATE, ALTER, and DELETE statements.

**Syntax of SELECT statement with WHERE clause:** SELECT column1, column2…. FROM table\_name WHERE [condition];

**EX:** CREATE TABLE Employee\_Details(

Employee\_ID INT NOT NULL PRIMARY KEY IDENTITY,

Emp\_Name VARCHAR (50),

Emp\_City VARCHAR (20),

Emp\_Salary INT NOT NULL,

Emp\_Panelty INT NOT NULL

);

INSERT INTO Employee\_Details (Employee\_ID, Emp\_Name, Emp\_City, Emp\_Salary, Emp\_Panelty) VALUES (101, Anuj, Ghaziabad, 25000, 500),

(102, Tushar, Lucknow, 29000, 1000),

(103, Vivek, Kolkata, 35000, 500),

(104, Shivam, Goa, 22000, 500);

The following query shows the record of those employees from the above table whose Emp\_Panelty is 500:

* SELECT \* FROM Employee\_Details WHERE Emp\_Panelty = 500;

*Ref:* [*https://www.javatpoint.com/sql-select*](https://www.javatpoint.com/sql-select)

**SQL Update Statement (**Update the inserted records**):**

SQL UPDATE statement is used to modify the existing records of a table. Which rows is to be update, it is decided by a condition. To specify condition, we use WHERE clause.

**Syntax:** UPDATE table\_name SET column1=value1, column2=value2, … WHERE condition;

**Ex:** UPDATE Student set grade = ‘A1’ WHERE Student\_id = 204;

**Updating Multiple fields:**

If you are going to update multiple fields, you should separate each field assignment with a comma.

SQL UPDATE statement for multiple fields:

UPDATE Student SET First\_Name=’John’, Address=’Hyderabad’ WHERE Student\_id=202;

**SQL Select Top Statement:**

The SELECT TOP statement in SQL shows the limited number of records or rows from the database table. The TOP clause in the statement specifies how many rows are returned.

**Syntax:** SELECT TOP number | percent column\_Name1, column\_Name2, ....., column\_NameN  FROM table\_name WHERE [Condition] ;

|  |  |  |
| --- | --- | --- |
| **Car Name** | **Car Color** | **Car Cost** |
| Hyundai Creta | White | 10,85,000 |
| Hyundai Venue | White | 9,50,000 |
| Hyundai i20 | Red | 9,00,000 |
| Kia Sonet | White | 10,00,000 |
| Kia Seltos | Black | 8,00,000 |
| Swift Dezire | Red | 7,95,000 |

Suppose, we want to show the first three Names and Color of Car from the above table, then the query will be:

SELECT TOP 3 Car\_Name, Car\_Color FROM Cars;

Suppose, you want to show the details of the first three cars in the result from the above table, then the query will be:

SELECT TOP 3 \* FROM CARS;

Suppose, you want to show the details of those first four cars whose color is White from the above table, then the query will be:

SELECT TOP 4 \* FROM CARS WHERE color=’White’;

Suppose, you want to show the 50 percent of data from the above table.

SELECT TOP 50 PERCENT \* FROM CARS;

**SQL Select Distinct Statement:**

The SQL DISTINCT command is used with SELECT key word to retrieve only distinct or unique data. In a table, there may be a chance to exist a duplicate value and sometimes we want to retrieve only unique values. In such scenarios, SQL SELECT DISTINCT statement is used.

**Syntax:** SELECT DISTINCT column\_name ,column\_name  FROM  table\_name;

|  |  |  |  |
| --- | --- | --- | --- |
| **Student\_Name** | **Gender** | **Mobile\_Number** | **Home\_Town** |
| Rahul | Male | 1234567890 | Lucknow |
| Disha | Female | 0987654321 | Mumbai |
| Sonu | Male | 3456789012 | Lucknow |

**Ex:** SELECT DISTINCT home\_town  FROM students;

*Ref:* [*https://www.javatpoint.com/sql-update*](https://www.javatpoint.com/sql-update)