SQL - UPDATE View

SQL UPDATE View Statement

A view is a database object that can contain rows (all or selected) from an existing table. It can be created from one or many tables which depends on the provided SQL query to create a view.

Unlike **CREATE VIEW** and **DROP VIEW** there is no direct statement to update the records of an existing view. We can use the SQL **UPDATE** Statement to modify the existing records in a table or a view.

Syntax

The basic syntax of the UPDATE query with a WHERE clause is as follows −

```
UPDATE view_name
SET column1 = value1, column2 = value2...., columnN = valueN
WHERE [condition];
```

You can combine N number of conditions using the AND or the OR operators.

Example

Assume we have created a table named CUSTOMERS using the **CREATE TABLE** statement using the following query −

```
</>                                                    Open Compiler

CREATE TABLE CUSTOMERS(
   ID   INT              NOT NULL,
   NAME VARCHAR (20)     NOT NULL,
   AGE  INT              NOT NULL,
   ADDRESS  CHAR (25) ,
   SALARY   DECIMAL (18, 2),
   PRIMARY KEY (ID)
);
```

Now, insert values into this table using the INSERT statement as follows −

```
INSERT INTO CUSTOMERS VALUES
(1, 'Ramesh', 32, 'Ahmedabad', 2000.00 ),
(2, 'Khilan', 25, 'Delhi', 1500.00 ),
(3, 'Kaushik', 23, 'Kota', 2000.00 ),
(4, 'Chaitali', 25, 'Mumbai', 6500.00 ),
(5, 'Hardik', 27, 'Bhopal', 8500.00 ),
(6, 'Komal', 22, 'Hyderabad', 4500.00 ),
(7, 'Muffy', 24, 'Indore', 10000.00 );
```

Following query creates a view based on the above created table −

```
CREATE VIEW CUSTOMERS_VIEW AS SELECT * FROM CUSTOMERS;
```

You can verify the contents of a view using the SELECT query as shown below −

```
SELECT * FROM CUSTOMERS_VIEW;
```

The view will be displayed as follows −

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	Kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	Hyderabad	4500.00
7	Muffy	24	Indore	10000.00

Following query updates the age of Ramesh to 35 in the above created CUSTOMERS_VIEW −

```
UPDATE CUSTOMERS_VIEW
SET AGE = 35 WHERE name = 'Ramesh';
```

Verification

You can verify the contents of the CUSTOMERS_VIEW using the SELECT statement as follows −

```
SELECT * FROM CUSTOMERS_VIEW WHERE NAME ='Ramesh';
```

The resultant view would have the following record(s) −

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	35	Ahmedabad	2000.00

Example

The following query will update the ADDRESS of a customer whose ID is 6 in the CUSTOMERS_VIEW.

```
UPDATE CUSTOMERS_VIEW SET ADDRESS = 'Pune' WHERE ID = 6;
```

Output

The query produces the following output −

```
Query OK, 1 row affected (0.21 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Verification

If you retrieve the record with ID value 6 using the SELECT statement as −

```
SELECT * FROM CUSTOMERS_VIEW WHERE ID=6;
```

The record returned would be −

ID	NAME	AGE	ADDRESS	SALARY
6	Komal	22	Hyderabad	4500.00

Updating Multiple Rows and Columns

Using UPDATE statement, multiple rows and columns in a view/table can also be updated. While updating multiple rows, specify the condition in a WHERE clause such that only required rows would satisfy it.

Example

Following query updates the NAME and AGE column values in the CUSTOMERS_VIEW of the record with ID value 3.

```
UPDATE CUSTOMERS_VIEW
SET NAME = 'Kaushik Ramanujan', AGE = 24
WHERE ID = 3;
```

Output

The query produces the following output −

```
Query OK, 1 row affected (0.07 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Verification

You can verify whether the record is updated or not, using the following query −

```
SELECT * FROM CUSTOMERS_VIEW WHERE ID = 3;
```

The record returned would be −

ID	NAME	AGE	ADDRESS	SALARY
3	Kaushik Ramanujan	24	Kota	2000.00

Example

But if you want to modify/update the age values of all the records in the CUSTOMERS_VIEW, there is no need to use the WHERE clause.

```
UPDATE CUSTOMERS_VIEW SET AGE = AGE+6;
```

Output

This query produces the following output −

```
Query OK, 7 rows affected (0.10 sec)
Rows matched: 7  Changed: 7  Warnings: 0
```

Verification

To verify whether the records of the CUSTOMERS_VIEW are modified or not, use the following SELECT query −

```
SELECT * FROM CUSTOMERS_VIEW;
```

The resultant CUSTOMERS_VIEW would have the following records −

ID	NAME	AGE
1	Ramesh	41
2	Khilan	31
3	Kaushik Ramanujan	30
4	Chaitali	31
5	Hardik	33
6	Komal	28
7	Muffy	30