

SQL DELETE TABLE

SQL DELETE is a basic SQL operation used to delete data in a database. SQL DELETE is an important part of database management. DELETE can be used to selectively remove records from a database table based on certain conditions. This SQL DELETE operation is important for database size management, data accuracy, and integrity.

DELETE FROM table_name

WHERE some_condition;

Note: We can delete single as well as multiple records depending on the condition we provide in the WHERE clause. If we omit the WHERE clause then all of the records will be deleted and the table will be empty

Step 1: Create a Table

```
CREATE TABLE Employees (  
    EmployeeID INT PRIMARY KEY,  
    FirstName VARCHAR(50),  
    LastName VARCHAR(50),  
    Department VARCHAR(50),  
    Salary DECIMAL(10, 2)  
);
```

Step 2: Insert Sample Data

```
INSERT INTO Employees (EmployeeID, FirstName,  
    LastName, Department, Salary) VALUES  
(1, 'John', 'Doe', 'HR', 50000.00),  
(2, 'Jane', 'Smith', 'Finance', 60000.00),  
(3, 'Mike', 'Johnson', 'IT', 70000.00),  
(4, 'Emily', 'Davis', 'Marketing', 55000.00);
```

Step 3: Basic DELETE Statement

```
DELETE FROM Employees  
WHERE EmployeeID = 1;
```

Step 4: DELETE Without WHERE Clause (Advanced)

```
DELETE FROM Employees;
```

Step 5: DELETE with Complex Conditions (Advanced)

-- Delete employees from the IT department with a salary less than 65000

```
DELETE FROM Employees  
WHERE Department = 'IT' AND Salary < 65000;
```

Step 6: DELETE with JOIN (Advanced)

-- Assuming a Departments table

```
CREATE TABLE Departments (  
    DepartmentID INT PRIMARY KEY,  
    DepartmentName VARCHAR(50)  
);
```

-- Insert sample data into Departments

```
INSERT INTO Departments (DepartmentID, DepartmentName) VALUES  
(1, 'HR'),  
(2, 'Finance'),  
(3, 'IT'),  
(4, 'Marketing');
```

-- Delete employees whose department is not in the Departments table

```
DELETE e  
FROM Employees e  
LEFT JOIN Departments d ON e.Department = d.DepartmentName  
WHERE d.DepartmentID IS NULL;
```

Step 7: DELETE Using Subqueries (Advanced)

-- Delete employees with the lowest salary in their department

```
DELETE FROM Employees
```

```
WHERE Salary = (
```

```
    SELECT MIN(Salary)
```

```
    FROM Employees
```

```
    GROUP BY Department
```

```
);
```