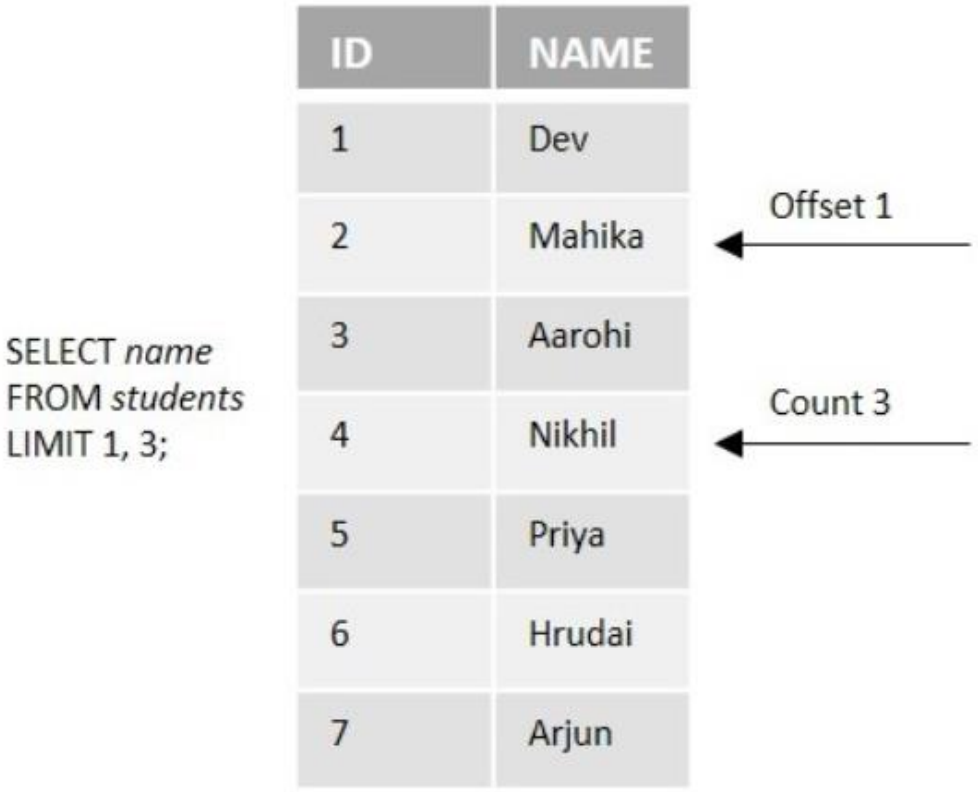
MySQL – Limit

MySQL Limit Clause

The LIMIT clause in MySQL can be used to specify the number of records to return. This clause is mostly used when dealing with tables that have thousands of records. It accepts one or two arguments (offset or count). The values of both arguments should be either be positive integers or zero.

The *offset* of the first row starts from 0, not from 1 and the count of the first row starts from 1. Let us understand it better using the following picture:



Assume the name of the above table is **students**. If we execute the above-mentioned query, we will get the output as Mahika, Aarohi, and Nikhil.

Syntax

```
SELECT column1, column2, ... FROM table_name
LIMIT number;
```

Where, the **LIMIT** clause specifies the maximum number of rows from the table to return.

Example

The following example demonstrates the usage of the MySQL Limit query.

First of all, let us create a table named **CUSTOMERS** using the following query –

```
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)
);
```

```
INSERT INTO CUSTOMERS (ID,NAME,AGE,ADDRESS,SALARY) 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 );
```

```
SELECT * FROM CUSTOMERS;
```

```
SELECT * FROM CUSTOMERS LIMIT 4;
```

Example

In the following query, we are selecting rows from the CUSTOMERS table starting from the third row (offset 2) from then four rows –

```
SELECT * FROM CUSTOMERS LIMIT 2,4;
```

LIMIT with WHERE Clause

In MySQL, we can use the LIMIT clause along with the WHERE clause in a SELECT statement to specify the number of rows returned from the query based on the conditions.

Syntax

Following is the generic syntax –

```
SELECT column1, column2, ... FROM table_name
WHERE condition
LIMIT number;
```

Example

In the query below, we are selecting the first two rows from the CUSTOMERS table where the AGE is greater than 21 –

```
SELECT * FROM CUSTOMERS WHERE AGE > 21 LIMIT 2;
```

Example

In the following query, we are selecting the next 3 records from the CUSTOMERS table starting from the 2nd record (off set) where the value of the AGE column is greater than 21:

```
SELECT * FROM CUSTOMERS WHERE AGE > 21 LIMIT 1,3;
```

LIMIT with ORDER BY clause

The ORDER BY clause will sort the rows of a column in the specified order (ASC or DESC). In MySQL, we can use the LIMIT clause along with the ORDER BY clause to limit the number of rows returned in the sorted result set.

Syntax

Following is the syntax of LIMIT clause with WHERE clause in MySQL –

```
SELECT column1, column2, ... FROM table_name
ORDER BY column_name [ASC|DESC]
LIMIT number;
```

Example

In the below query, we are fetching all the records from the CUSTOMERS table and sorting the SALARY column in descending order. Then we are fetching 5 rows from the sorted result set.

```
SELECT * FROM CUSTOMERS
ORDER BY SALARY DESC
LIMIT 5;
```

Example

Here, we are selecting all the records from the table and sorting the SALARY column in ascending order. Then we are fetching rows from the sorted result set starting from the second row (offset 1) from then three rows –

```
SELECT * FROM CUSTOMERS
ORDER BY SALARY ASC
LIMIT 1,3;
```