

## MySQL - Drop Index

The DROP statement in MySQL database is used to remove or delete an existing database object such as a table, index, view, or procedure. Whenever we use DROP statement with any of the database objects, like indexes, it will remove them permanently along with their associated data.

Therefore, we can drop any index from a database table using two different SQL DROP queries.

*It is important to understand that dropping an index can have a significant impact on the performance of your database queries. Therefore, only try to remove an index if you are sure that it is no longer required.*

### The MySQL DROP INDEX Statement

The DROP INDEX statement in MySQL is used to delete an index from a table.

#### Syntax

Following is the syntax to drop an index using DROP INDEX statement –

```
DROP INDEX index_name ON table_name;
```

#### Example

In this example, we first create a new table CUSTOMERS and adding an index to one of its columns (AGE) using the following CREATE TABLE 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),  
  INDEX(AGE)  
);
```

Now, create another index on CUSTOMERS table. We are using CREATE INDEX statement here –

```
CREATE INDEX NAME_INDEX ON CUSTOMERS (Name);
```

### **DROP INDEX Query –**

Then, use the following query to drop the index created above.

```
DROP INDEX NAME_INDEX ON CUSTOMERS;
```

### **Verification**

To verify if the index has been dropped, display the table definition using DESC query below –

```
DESC CUSTOMERS;
```

## **The MySQL ALTER... DROP Statement**

The ALTER DROP statement can also be used to drop an index in a MySQL table. This is just an alternative to the DROP INDEX statement, so it only works with the index that exists on a table.

### **Syntax**

Following is the syntax of the DROP INDEX IF EXISTS in SQL –

```
ALTER TABLE table_name DROP INDEX index_name;
```

### **Example**

Let us see another example to drop the index from the CUSTOMERS table using the ALTER... DROP command as shown below –

```
ALTER TABLE CUSTOMERS DROP INDEX AGE;
```

### **Verification**

To verify if the index on AGE column has been dropped, display the table definition using DESC query below –

```
DESC CUSTOMERS;
```

## Dropping PRIMARY KEY or UNIQUE Constraint

The DROP INDEX statement in MySQL does not usually drop indexes like PRIMARY KEY or UNIQUE constraints. To drop indexes associated with these constraints, we need to use the ALTER TABLE DROP command.

### Syntax

Following is the syntax –

```
ALTER TABLE table_name DROP constraint_name;
```

### Example

In this example, we are using the following query to drop the PRIMARY KEY constraint present on the ID column of CUSTOMERS table –

```
ALTER TABLE CUSTOMERS DROP PRIMARY KEY;
```

### Verification

To verify whether the primary key constraint is dropped from the table, describe the 'temp' table using DESC command as follows –

```
DESC CUSTOMERS;
```