

SQL Introduction	>
SQL SELECT (I)	>
SQL SELECT (II)	>
SQL JOIN	>
SQL DATABASE & TABLE	>
SQL Insert, Update and Delete	>
SQL Constraints	^
<div><div></div><div>SQL Constraints</div></div>	
<div><div></div><div>SQL Not Null Constraint</div></div>	
<div><div></div><div>SQL Unique Constraints</div></div>	
<div><div></div><div>SQL Primary Key</div></div>	
<div><div></div><div>SQL Foreign Key</div></div>	
<div><div></div><div>SQL Check</div></div>	
<div><div></div><div>SQL Default</div></div>	
<div><div></div><div>SQL Create Index</div></div>	
SQL Additional Topics	>

Related Topics
SQL CREATE INDEX
SQL PRIMARY KEY
SQL Constraints
SQL NOT NULL Constraint
SQL DEFAULT Constraint
SQL SELECT DISTINCT Statement

SQL UNIQUE Constraint

In this tutorial, we'll learn to use the **UNIQUE** constraint with the help of examples.

In SQL, the **UNIQUE** constraint in a column means that the column must have unique values. For example,

```
CREATE TABLE Colleges (  
  college_id INT NOT NULL UNIQUE,  
  college_code VARCHAR(20) UNIQUE,  
  college_name VARCHAR(50)  
);
```

Run Code >>

Here, the values of the `college_code` column must be unique. Similarly, the values of `college_id` must be unique as well as it cannot store `NULL` values.

UNIQUE Vs DISTINCT

The **UNIQUE** constraint is used to make column's value unique. However, to select unique rows from the table, we have to use **SQL SELECT DISTINCT**. For example,

```
SELECT DISTINCT country  
FROM Customers;
```

Run Code >>

Here, the SQL command selects unique countries from the Customers table.

Count UNIQUE Rows

If we need to count the number of unique rows, we can use the **COUNT()** function with the **SELECT DISTINCT** clause. For example,

```
SELECT COUNT(DISTINCT country)  
FROM Customers;
```

Run Code >>

Here, the SQL command returns the count of unique countries.

UNIQUE Constraint With Alter Table

We can also add the **UNIQUE** constraint to an existing column using the **ALTER TABLE** command. For example,

For single column

```
ALTER TABLE Colleges  
ADD UNIQUE (college_id);
```

For multiple column

```
ALTER TABLE Colleges  
ADD UNIQUE UniqueCollege (college_id, college_code);
```

Here, the SQL command adds the **UNIQUE** constraint to the specified column(s) in an existing table.

Error When Inserting Duplicate Values

If we try to insert duplicate values in a column with the **UNIQUE** constraint, we will get an error.

```
CREATE TABLE Colleges (  
  college_id INT NOT NULL UNIQUE,  
  college_code VARCHAR(20) UNIQUE,  
  college_name VARCHAR(50)  
);  
  
-- Inserting values to the Colleges table  
INSERT INTO Colleges(college_id, college_code, college_name)  
VALUES (1, "ARD12", "Star Public School"), (2, "ARD12", "Galaxy School");
```

Run Code >>

Here, we are trying to insert **ARD12** in the `college_code` column in two different rows. Hence, the **INSERT INTO** command results in an error.

CREATE UNIQUE INDEX for Unique Values

If we want to create indexes for unique values in a column, we use the **CREATE UNIQUE INDEX** constraint. For example,

```
-- create unique index  
CREATE UNIQUE INDEX college_index  
ON Colleges(college_code);
```

Run Code >>

Here, the SQL command creates a unique index named `college_index` on the `Colleges` table using the `college_code` column.

Note: Although the index is created for only unique values, the original data in the table remains unaltered.

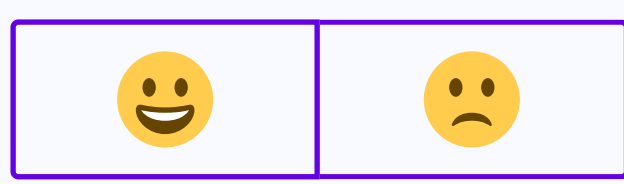
Recommended Readings

- [SQL CREATE INDEX](#)
- [SQL Constraints](#)
- [SQL NOT NULL Constraint](#)
- [SQL PRIMARY KEY](#)

Previous Tutorial:
[SQL Not Null Constraint](#)

Next Tutorial:
[SQL Primary Key](#) →

Did you find this article helpful?



Related Tutorials

Programming

SQL CREATE INDEX

Programming

SQL PRIMARY KEY

Programming

SQL Constraints

Programming

SQL NOT NULL Constraint

Programiz



Tutorials

- Python 3 Tutorial
- JavaScript Tutorial
- SQL Tutorial
- C Tutorial
- Java Tutorial
- Kotlin Tutorial
- C++ Tutorial
- Swift Tutorial
- C# Tutorial
- Go Tutorial
- DSA Tutorial

Examples

- Python Examples
- JavaScript Examples
- C Examples
- Java Examples
- Kotlin Examples
- C++ Examples

Company

- About
- Advertising
- Privacy Policy
- Terms & Conditions
- Contact
- Blog
- Youtube

Apps

- Learn Python
- Learn C Programming
- Learn Java