

# SQL Constraints

[« Previous](#)[Next »](#)

SQL constraints are used to specify rules for data in a table.

## SQL Create Constraints

Constraints can be specified when the table is created with the `CREATE TABLE` statement or after



HTML

CSS

JAVASCRIPT

SQL

PYTHON

PHP

BOOTSTRAP

STATEMENTS

## Syntax

```
CREATE TABLE table_name (
    column1 datatype constraint,
    column2 datatype constraint,
    column3 datatype constraint,
    ...
);
```

COLOR  
PICKER

## SQL Constraints

SQL constraints are used to specify rules for the data in a table.

Constraints are used to limit the type of data that

HOW  
TO

[SQL Right Join](#)  
[SQL Full Join](#)  
[SQL Self Join](#)  
[SQL Union](#)  
[SQL Group By](#)  
[SQL Having](#)  
[SQL Exists](#)  
[SQL Any, All](#)  
[SQL Select Into](#)  
[SQL Insert Into Select](#)  
[SQL Case](#)  
[SQL Null Functions](#)  
[SQL Stored Procedures](#)  
[SQL Comments](#)

## SQL Database

[SQL Create DB](#)  
[SQL Drop DB](#)  
[SQL Backup DB](#)  
[SQL Create Table](#)  
[SQL Drop Table](#)  
[SQL Alter Table](#)  
[SQL Constraints](#)  
[SQL Not Null](#)  
[SQL Unique](#)  
[SQL Primary Key](#)  
[SQL Foreign Key](#)  
[SQL Check](#)  
[SQL Default](#)  
[SQL Index](#)  
[SQL Auto Increment](#)  
[SQL Dates](#)  
[SQL Views](#)  
[SQL Injection](#)  
[SQL Hosting](#)

## SQL References

[SQL Keywords](#)

can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and the data action, the action is aborted.

Constraints can be column level or table level. Column level constraints apply to a column, and table level constraints apply to the whole table.

The following constraints are commonly used in SQL:

- **NOT NULL** - Ensures that a column cannot have a NULL value
- **UNIQUE** - Ensures that all values in a column are different
- **PRIMARY KEY** - A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table
- **FOREIGN KEY** - Uniquely identifies a row/record in another table
- **CHECK** - Ensures that all values in a column satisfies a specific condition
- **DEFAULT** - Sets a default value for a column when no value is specified
- **INDEX** - Used to create and retrieve data from the database very quickly

[◀ Previous](#)

[Next ▶](#)

SHARE



CERTIFIC

[HTML](#)  
[CSS](#)  
[JavaScript](#)  
[SQL](#)  
[Python](#)  
[PHP](#)

Tabs  
 Dropdown  
 Accordior  
 Side  
 Navigatic  
 Top  
 Navigatic  
 Modal  
 Boxes  
 Progress  
 Bars  
 Parallax  
 Login  
 Form  
 HTML  
 Includes  
 Google  
 Maps  
 Range  
 Sliders  
 Tooltips  
 Slideshov  
 Filter  
 List  
 Sort  
 List

[REPORT ERROR](#)[PRINT PAGE](#)[FORUM](#)[ABOUT](#)

## Top Tutorials

[HTML Tutorial](#)  
[CSS Tutorial](#)  
[JavaScript Tutorial](#)  
[How To Tutorial](#)  
[SQL Tutorial](#)  
[Python Tutorial](#)  
[W3.CSS Tutorial](#)  
[Bootstrap Tutorial](#)  
[PHP Tutorial](#)  
[jQuery Tutorial](#)  
[Java Tutorial](#)  
[C++ Tutorial](#)

## Top References

[HTML Reference](#)  
[CSS Reference](#)  
[JavaScript Reference](#)  
[SQL Reference](#)  
[Python Reference](#)  
[W3.CSS Reference](#)  
[Bootstrap Reference](#)  
[PHP Reference](#)  
[HTML Colors](#)  
[jQuery Reference](#)  
[Java Reference](#)  
[Angular Reference](#)

## Top Examples

[HTML Examples](#)  
[CSS Examples](#)  
[JavaScript Examples](#)  
[SQL Examples](#)  
[Python Examples](#)  
[W3.CSS Examples](#)  
[Bootstrap Examples](#)  
[PHP Examples](#)  
[jQuery Examples](#)  
[Java Examples](#)  
[XML Examples](#)

## Web Certificates

[HTML Certificate](#)  
[CSS Certificate](#)  
[JavaScript Certificate](#)  
[SQL Certificate](#)  
[Python Certificate](#)  
[jQuery Certificate](#)  
[PHP Certificate](#)  
[Bootstrap Certificate](#)  
[XML Certificate](#)  
[Get Certified »](#)

W3Schools is optimized for learning, testing, and training. Examples might be simplified to improve reading and basic understanding. Tutorials, references, and examples are constantly reviewed to avoid errors, but we cannot warrant full correctness of all content. While using this site, you agree to have read and accepted our terms of use, cookie and privacy policy. Copyright 1999-2019 by Refsnes Data. All Rights Reserved.

Powered by W3.CSS.

