**Constraints : Primary Key,Not Null, Foreign Key**

#### **What are Constraints in MySQL?**

Constraints in MySQL is used to define rules for what values can be stored in rows and columns in a table. It is used to limit the data that can be inserted into a table. The action is canceled if there is a conflict between the constraint and the data action. This also helps in maintaining the reliability and accuracy of the data.

**1. NOT NULL Constraint in MySQL**

The NOT NULL constraint is used for a column in a table. It ensures that there should not be any NULL value in that column. It is generally assigned for a column while creating a table.

**Syntax**

column\_name datatype NOT NULL;

**Example:**

CREATE TABLE students(

reg\_no INT NOT NULL,

name VARCHAR(255) NOT NULL,

admission\_date DATE

);

#### **2. The PRIMARY KEY constraint in MySQL**

A primary key is a column or a set of columns that uniquely defines each row or tuple in a table.

* There can be only one primary key in a table.
* The primary key can't contain NULL values.
* If we try to insert NULL value to a primary key column, it will cause an error.
* A primary key must contain unique values. For a set of columns, the combination of columns must be unique.

**3.The FOREIGN KEY constraint in MySQL**

A foreign key is a column or set of columns in a table that references to a column or set of columns of another table. It helps in maintaining links among the tables. Typically, the referenced column or set of columns of another table is the primary key of that table. The referenced table or the table with the primary key is called the parent table and referencing table with the foreign key is called the child table.

A table can have one or more foreign keys and each foreign key references the primary key of other different parent tables.

Sometimes, the parent table and child table can be the same when the foreign key references the primary key of the same table.