

# DAY 4

Tuesday, July 21, 2020 9:34 AM

## CONSTRAINTS :

*It is a rule given to a column for validation .*

### Types of Constraints :

1. UNIQUE
2. NOT NULL
3. CHECK
4. PRIMARY KEY
5. FOREIGN KEY .

1. **UNIQUE** : "It is used to avoid duplicate values into the column ".
2. **NOT NULL** : "It is used to avoid Null ".
3. **CHECK** : "It is an extra validation with a condition  
*If the condition is satisfied then the value is accepted else Rejected* ".
4. **PRIMARY KEY** : "It is a constraint which is used to identify a record Uniquely from the table " .

#### Characteristics of Primary key :

- We can have only 1 PK in a table
- PK cannot accept duplicate / repeated values .
- PK cannot accept Null
- PK is always a combination of Unique and Not Null Constraint.

5. **FOREIGN KEY** : "It is used to establish a connection between the The tables "

#### Characteristics of Foreign key :

- We can have only Multiple FK in a table
- FK can accept duplicate / repeated values .
- FK can accept Null
- FK is not a combination of Unique and Not Null Constraint.
- For an Attribute ( column ) to become a FK ,it is mandatory That it must be a PK in its own table .

## Example :

### EMP

<u>Primary key</u>				
		Check ( Salary >		Check

		0 )	( length(phone) = 10 )		
<u>Not Null</u>	<u>Not Null</u>	<u>Not Null</u>	<u>Not Null</u>	<u>Not Null</u>	
<u>Unique</u>				<u>Unique</u>	
<u>EID</u>	<u>NAME</u>	<u>SALARY</u>	<u>DOJ</u>	<u>PHONE</u>	
Number(2)	Varchar(10)	Number(7,2)	Date	Number(10)	
1	A	10000	'20-JUN-20'	9876543210	
2	B	20000	'20-JUN-19'	9876543222	
3	C	35000	'01-JAN-18'	9876543333	
4	D	50000	'01-OCT-19'	9876511111	

### Example for Foreign Key :

Emp

<u>EID</u>	<u>NAME</u>	<u>SALARY</u>	<u>DNO</u>	FK	<u>CID</u>	FK
1	A	10000	20		2	
2	B	20000	10		3	
3	C	35000	20		1	
4	D	50000	10		2	

Child Table

Customer

<u>CID</u>	<u>CNAME</u>	<u>CNO</u>
1	X	1001
2	Y	2002
3	Z	3003

Parent Table

Dept

<u>DNO</u>	<u>DNAME</u>	<u>LOC</u>
10	D1	L1
20	D2	L2

Parent Table

### ASSIGNMENT :

1. Differentiate between Primary key and Foreign key .

<u>PRIMARY KEY</u>	<u>FOREIGN KEY</u>
It is used to identify a records Uniquely from the table.	It is used to establish a connection Between the tables
It cannot accept Null	It can accept Null
It cannot accept duplicate values	It can accept duplicate values
It is always a combination of Not Null and Unique constraint	It is not a combination of Not Null and Unique constraint
We can have only 1 PK in a table	We can have Multiple FK in a table

### NOTE : NULL

Null Is a *keyword* which is used to represent Nothing / Empty Cell.

#### Characteristics of Null :

- Null doesn't represent 0 or Space .
- Any operations performed on a Null will result in Null itself

- Null doesn't Occupy any Memory .
- We cannot Equate Null .