

## Constraints

These are rules or conditions or limits to the data flow into the table.

1. Not Null
2. Unique
3. Primary key
4. Foreign key
5. Check

Roll No	Name	Branch

### 1. Not Null:

- Must assign value
- Accept the duplicate
- 'N' number of duplicates
- Doesn't accept NULL

#### Syntax:

```
CREATE TABLE <TABLE_NAME> (CN DATATYPE (SIZE), CN DATATYPE (SIZE) NOT NULL, CN DATATYPE (SIZE));
```

#### Example:

```
CREATE TABLE CONSTRAINTS (ROLLNO NUMBER (10), NAME VARCHAR2 (10) NOT NULL, BRANCH VARCHAR2, (08));
```

### 2. Unique:

- It maintains the unique record in the database or table.
- Not accept the duplicate
- Accept null

#### Syntax:

```
CREATE TABLE <TABLE_NAME> (CN DATATYPE (SIZE) UNIQUE, CN DATATYPE (SIZE), CN DATATYPE (SIZE));
```

#### Example:

```
CREATE TABLE CONSTRAINTS (ROLLNO NUMBER (10) UNIQUE, NAME VARCHAR2 (10), BRANCH VARCHAR2, (08));
```

### 3. Primary key:

- It is the combination of not null and unique.
- It doesn't accept null
- It doesn't accept duplicate
- For one table one primary key.
- Primary key is always present in parent table.

#### Syntax:

```
CREATE TABLE <TABLE_NAME> (CN DATATYPE (SIZE) PRIMARY KEY, CN DATATYPE (SIZE), CN DATATYPE (SIZE));
```

#### Example:

```
CREATE TABLE CONSTRAINTS (ROLLNO NUMBER (10) PRIMARY KEY,
```

NAME VARCHAR2(10), BRANCH VARCHAR2, (08));

**Note: Composite Primary Key: In a table more than one column having the primary key then we call this as composite primary key**

**1. Foreign key:**

- It references the Primary Key.

**Example:**

```
CREATE TABLE DEPTNO (DEPTNO NUMBER (10) REFERENCES SCOTT.EMP (DEPTNO));
```

**2. Check Constraint:**

- By using this we can define range value and conditions

**Example:**

```
CREATE TABLE EMP (SAL NUMBER (10) CHECK (SAL BETWEEN 5000 AND 50000));CREATE TABLE EMP (SAL NUMBER (10) CHECK SAL>5000);
```

**Like Operators:**

- By using this we can set the data based on pattern matching.

Here we used two Wild Cards

% (percentage)	Extract many Characters.
_ (under score)	Extract single Characters.

**Example:**

```
SELECT ENAME FROM SCOTT.EMP WHERE  
ENAME LIKE 'S%'; SELECT ENAME FROM  
SCOTT.EMP WHERE ENAME LIKE %S%';SELECT  
ENAME FROM SCOTT.EMP WHERE ENAME LIKE  
'_L%';SELECT SAL FROM SCOTT.EMP WHERE  
SAL LIKE '%3';
```