

DATA CONSTRAINTS:

In SQL constraint means the column that impose limit or restrictions on the table, use of constraints is to build up reliability structured table. some of the constraints are

- NOT NULL: It is constraint put the condition to fill the value in the particular column.
- CHECK : It checks the given value if condition is satisfied the value is allotted to column else gives error.
- UNIQUE : It checks the given value should be unique in the column.
- INDEX : Usually Index retrieve the required column value.
- DEFAULT : If value is not entered in the column its allot the default declared value.
- PRIMARY KEY : Uniquely identifies each row in a table.

create table using the data constraints.

```
CREATE DATABASE SUBJECTS;
```

```
USE SUBJECTS;
```

create "MARKS" table

```
CREATE TABLE MARKS (
```

```
  ID INT NOT NULL,
```

```
  NAME VARCHAR(30) NOT NULL UNIQUE,
```

```
  PHYSICS INT NOT NULL CHECK (PHYSICS > 25),
```

```
  CHEMISTRY INT NOT NULL,
```

```
  MATHS INT NOT NULL,
```

```
  BIOLOGY INT NOT NULL DEFAULT "ABS",
```

```
);
```

Syntax: "columnName" "Datatype" "constraints"

ID	NAME	PHYSICS	CHEMISTRY	BIO	MATHS

-- Below code shows which is primary key.

```
DESC MARKS;
```

Add values in the table.

```
INSERT INTO MARKS
```

```
VALUES (01, "XYZ", 30, 20, 10, 60);
```


-- below code gives error

```
INSERT INTO MARKS
```

```
VALUES (02, "XYZ", 15, 20);
```

2nd column name is not unique

3rd & 4th column are not satisfying condition

5th & 6th column should not be null.

ID	NAME	PHYSICS	CHE	MATHS	BIO
01	XYZ	30	20	10	60

-- If you want to drop all the constraints

```
ALTER TABLE MARKS
```

```
MODIFY BIOLOGY INT NULL;
```

```
ALTER TABLE MARKS
```

```
MODIFY MATHS INT NULL;
```

→ ALTER TABLE MARKS

```
ALTER COLUMN ID INT NULL;
```

→ ALTER TABLE MARKS

```
MODIFY PHYSICS INT NULL;
```

```
ALTER TABLE MARKS
```

```
MODIFY CHEMISTRY INT NULL;
```

```
ALTER TABLE MARKS
```

```
MODIFY VARCHAR(30) NULL;
```

Note: "→" Any
of the code
can be used.

Insert values into the column.

INSERT INTO MARKS (ID, NAME, PHYSICS)

VALUES (02, "RAM", 35);

ID	NAME	PHYSICS	CHE	MATHS	BIO
01	XYZ	30	20	10	60
02	RAM	35	Null	Null	Null