

OUTPUT

1)NOT NULL

```
mysql> CREATE TABLE students(  
    -> id INT NOT NULL,  
    -> name varchar(15),  
    -> address varchar(30));
```

```
mysql> INSERT INTO students VALUES(NULL,'Gill','gujarat');  
ERROR 1048 (23000): Column 'id' cannot be null
```

2) UNIQUE

```
mysql> ALTER TABLE students  
    -> ADD UNIQUE(name);
```

```
mysql> INSERT INTO students VALUES(1,'Gill','gujarat');  
Query OK, 1 row affected
```

```
mysql> INSERT INTO students VALUES(2,'Gill','mumbai');  
ERROR 1062 (23000): Duplicate entry 'Gill' for key 'students.name'
```

3)PRIMARY KEY

```
mysql> ALTER TABLE students  
    -> ADD PRIMARY KEY(id);
```

4)FOREIGN KEY

```
mysql> CREATE TABLE course(  
    -> student_id INT NOT NULL,  
    -> course_name VARCHAR(15) NOT NULL,  
    -> CONSTRAINT fk_course_students_id  
    -> FOREIGN KEY(student_id) REFERENCES students(id));
```

```
mysql> INSERT INTO course VALUES(1,'CSE');  
Query OK, 1 row affected
```

```
mysql> INSERT INTO course VALUES(4,'ECE');  
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails  
(`constraints`.`course`, CONSTRAINT `fk_course_students_id` FOREIGN KEY (`student_id`)  
REFERENCES `students` (`id`))
```

5)CHECK

```
mysql> ALTER TABLE students ADD COLUMN age INT CHECK(age>17);
```

```
mysql> INSERT INTO students(id,name,address,age) VALUES(3,'siraj','hyderabad',15);  
ERROR 3819 (HY000): Check constraint 'students_chk_1' is violated.
```

6) ENUM

```
mysql> ALTER TABLE students ADD COLUMN  
-> gender ENUM('M','F','T');
```

```
mysql> INSERT INTO students(id,name,address,age,gender) VALUES(3, 'Jasprit  
Bumrah','hyderabad',18,'Q');
```

ERROR 1265 (01000): Data truncated for column 'gender' at row 1

```
mysql> INSERT INTO students(id,name,address,age,gender) VALUES(3, 'Jasprit  
Bumrah','hyderabad',18,'M');  
Query OK, 1 row affected
```

```
mysql> select constraint_name , constraint_type  
-> from information_schema.table_constraints  
-> where table_name = 'students';
```

CONSTRAINT_NAME	CONSTRAINT_TYPE
name	UNIQUE
PRIMARY	PRIMARY KEY
students_chk_1	CHECK

```
mysql> select constraint_name , constraint_type  
-> from information_schema.table_constraints  
-> where table_name = 'course';
```

CONSTRAINT_NAME	CONSTRAINT_TYPE
fk_course_students_id	FOREIGN KEY