```
1)NOT NULL

mysql> CREATE TABLE students(
    -> id INT NOT NULL,
    -> name varchar(15),
    -> address varchar(30));
Query OK, 0 rows affected (0.01 sec)

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);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> INSERT INTO students VALUES(1,'Gill','gujarat');
Query OK, 1 row affected (0.00 sec)

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);
Query OK, 0 rows affected (0.07 sec)

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));
Query OK, 0 rows affected (0.02 sec)

mysql> INSERT INTO course VALUES(1,'CSE');
Query OK, 1 row affected (0.00 sec)
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);
Query OK, 1 row affected (0.05 sec)
Records: 1  Duplicates: 0  Warnings: 0
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');
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

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 (0.01 sec)

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           |
+-----------------+-----------------+
3 rows in set (0.01 sec)

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     |
+----------------------+-----------------+
1 row in set (0.00 sec)
```