**1..DDL**

**Create alter-**

mysql> create database car;

ERROR 1007 (HY000): Can't create database 'car'; database exists

mysql> use car;

Database changed

mysql> create table car(id int,name varchar(40),purchase varchar(50),develop varchar(60));

mysql> desc car;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| id | int | YES | | NULL | |

| name | varchar(30) | YES | | NULL | |

| purchase | varchar(40) | YES | | NULL | |

| develop | varchar(50) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> insert into car(id,name,purchase,develop)value(12,'ram','70000','2003'),(13,'sham','80000','2004'),(13,'seeta','970000','2005'),(15,'radha','78000','2005');

Query OK, 4 rows affected (0.01 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql> select\* from car;

+------+-------+----------+---------+

| id | name | purchase | develop |

+------+-------+----------+---------+

| 103 | ram | 60000 | 1980 |

| 104 | seeta | 70000 | 1981 |

| 105 | riya | 50000 | 1970 |

| 106 | siya | 80000 | 2003 |

| 12 | ram | 70000 | 2003 |

| 13 | sham | 80000 | 2004 |

| 13 | seeta | 970000 | 2005 |

| 15 | radha | 78000 | 2005 |

+------+-------+----------+---------+

8 rows in set (0.00 sec)

mysql> alter table car modify purchase varchar(40);

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

1. **Modify-**

mysql> desc car;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| id | int | YES | | NULL | |

| name | varchar(30) | YES | | NULL | |

| purchase | varchar(40) | YES | | NULL | |

| develop | varchar(50) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

**2.add column-**

mysql> alter table car add color varchar(60);

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

Mysql> desc car;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| id | int | YES | | NULL | |

| name | varchar(30) | YES | | NULL | |

| purchase | varchar(40) | YES | | NULL | |

| develop | varchar(50) | YES | | NULL | |

| color | varchar(60) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

5 rows in set (0.00 sec)

**3.drop column-**

mysql> alter table car drop develop ;

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc car;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| id | int | YES | | NULL | |

| name | varchar(30) | YES | | NULL | |

| purchase | varchar(40) | YES | | NULL | |

| color | varchar(60) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

**4.rename-**

mysql> alter table car change id cid int;

Query OK, 0 rows affected (0.06 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc car;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| cid | int | YES | | NULL | |

| name | varchar(30) | YES | | NULL | |

| purchase | varchar(40) | YES | | NULL | |

| color | varchar(60) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> alter table student modify stud\_name varchar(20)not null;

Query OK, 0 rows affected (0.18 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc student;

+-----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+-------------+------+-----+---------+-------+

| rollno | int | YES | | NULL | |

| stud\_name | varchar(20) | NO | | NULL | |

| per | float | YES | | NULL | |

| email | varchar(30) | YES | | NULL | |

| age | varchar(70) | YES | | NULL | |

+-----------+-------------+------+-----+---------+-------+

5 rows in set (0.00 sec)

**SQL unique constraint on create table**

mysql> create table persons(id int not null unique,lastname varchar(255)not null,firstname varchar(255),age int);

Query OK, 0 rows affected (0.07 sec)

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| lastname | varchar(255) | NO | | NULL | |

| firstname | varchar(255) | YES | | NULL | |

| age | int | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

mysql> create table persons(id int not null,lastname varchar(255)not null,firstname varchar(255),age int,constraint oit unique (id,lastname));

Query OK, 0 rows affected (0.07 sec)

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| lastname | varchar(255) | NO | | NULL | |

| firstname | varchar(255) | YES | | NULL | |

| age | int | YES | | NULL | |

**SQL unique constraint on alter table**

mysql> alter table persons

-> add unique (id);

Query OK, 0 rows affected, 1 warning (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 1

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| lastname | varchar(255) | NO | | NULL | |

| firstname | varchar(255) | YES | | NULL | |

| age | int | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

**SQL unique constraint on drop table**

mysql> alter table persons drop lastname;

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| firstname | varchar(255) | YES | | NULL | |

| age | int | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

mysql> create table persons(id int not null,firstname varchar(255)not null,age int,primary key(id));

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| firstname | varchar(255) | YES | | NULL | |

| age | int | YES | | NULL | |

**Preson-**

mysql> create database persons;

ERROR 1007 (HY000): Can't create database 'persons'; database exists

mysql> use persons;

Database changed

mysql> create table persons(id int null,lastname varchar(255),not null,firstname varchar(255) not null,age int,constraint oit unique(id,lastname));

mysql> select\* from persons;

+-----+----------+-----------+------+

| id | lastname | firstname | age |

+-----+----------+-----------+------+

| 101 | abc | xyz | 23 |

| 102 | abc | xyz | 23 |

+-----+----------+-----------+------+

2 rows in set (0.00 sec)

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | | NULL | |

| lastname | varchar(255) | NO | | NULL | |

| firstname | varchar(255) | NO | | NULL | |

| age | int | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> insert into persons values(101,'abc','xyz',23);

Query OK, 1 row affected (0.01 sec)

mysql> select\* from persons;

+-----+----------+-----------+------+

| id | lastname | firstname | age |

+-----+----------+-----------+------+

| 101 | abc | xyz | 23 |

| 102 | abc | xyz | 23 |

| 101 | abc | xyz | 23 |

+-----+----------+-----------+------+

3 rows in set (0.00 sec)

mysql> create table persons(id int null,lastname varchar(255),not null,firstname varchar(255),age int check(age>=18));

Query OK, 0 rows affected (0.06 sec)

mysql> select\* from persons;

+-----+----------+-----------+------+

| id | lastname | firstname | age |

+-----+----------+-----------+------+

| 101 | abc | xyz | 23 |

| 102 | abc | xyz | 23 |

| 101 | abc | xyz | 23 |

+-----+----------+-----------+------+

3 rows in set (0.00 sec)

mysql> desc persons;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| id | int | NO | | NULL | |

| lastname | varchar(255) | NO | | NULL | |

| firstname | varchar(255) | NO | | NULL | |

| age | int | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

**Sql default-**

mysql> create table student(rollno int,stud\_name varchar(20)not null,age int ,email varchar(30)default'sham');

ERROR 1050 (42S01): Table 'student' already exists

mysql> select\*from student;

+--------+-----------+------+---------------+------+---------+--------+------+

| rollno | stud\_name | per | email | age | address | salary | id |

+--------+-----------+------+---------------+------+---------+--------+------+

| 101 | Ram | 99 | vst@gmail.com | NULL | NULL | NULL | NULL |

| 101 | ram | 99 | vst@gmail.com | NULL | NULL | NULL | NULL |

| 102 | sham | 99 | NULL | NULL | NULL | NULL | NULL |

| 103 | seeta | 99 | NULL | NULL | NULL | NULL | NULL |

| 104 | geeta | 99 | NULL | NULL | NULL | NULL | NULL |

+--------+-----------+------+---------------+------+---------+--------+------+

5 rows in set (0.00 sec)