

1. Create a table Customer with columns cid and cname. cid should be a primary key in the table and cname should be NOT NULL.

```
mysql> create table customer (cid int primary key,cname varchar(20) not null);
```

Query OK, 0 rows affected (0.04 sec)

2. Insert three customer data into the table.

```
mysql> insert into customer (cid,cname) values (101,'Larine'),(102,'Keer'),(103,'Nish');
```

Query OK, 3 rows affected (0.05 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> select * from customer;
```

```
+-----+-----+
```

```
| cid | cname |
```

```
+-----+-----+
```

```
| 101 | Larine |
```

```
| 102 | Keer  |
```

```
| 103 | Nish  |
```

```
+-----+-----+
```

3 rows in set (0.00 sec)

3. Add columns age, city and phnum. Age > 20, city default value should be 'Bangalore' and phnum should be unique.

```
mysql> alter table customer add (age int check (age>20),city varchar(10) default 'bangalore',phnum int unique);
```

Query OK, 3 rows affected (0.15 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> desc customer
```

```
-> ;
```

```
+-----+-----+-----+-----+-----+-----+
```

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

```
+-----+-----+-----+-----+-----+-----+
```

```
| cid   | int       | NO   | PRI | NULL    |      |
```

```
| cname | varchar(20) | NO   |     | NULL    |      |
```

```
| age   | int       | YES  |     | NULL    |      |
```

```
| city | varchar(10) | YES | | banglore | |
| phnum | int | YES | UNI | NULL | |
+-----+-----+-----+-----+-----+-----+
```

5 rows in set (0.04 sec)

4. Turn on the transaction on.

```
mysql> set autocommit=0;
```

Query OK, 0 rows affected (0.04 sec)

5. Insert another two customer data into the table without city value.

```
mysql> insert into customer (cid,cname,age,phnum) values
(104,'Tom',34,98674563),(105,'Shamla',21,867593845);
```

Query OK, 2 rows affected (0.04 sec)

Records: 2 Duplicates: 0 Warnings: 0

6. Display data from the table.

```
mysql> select * from customer;
```

```
+-----+-----+-----+-----+-----+
| cid | cname | age | city | phnum |
+-----+-----+-----+-----+
| 101 | Larine | NULL | banglore | NULL |
| 102 | Keer | NULL | banglore | NULL |
| 103 | Nish | NULL | banglore | NULL |
| 104 | Tom | 34 | banglore | 98674563 |
| 105 | Shamla | 21 | banglore | 867593845 |
+-----+-----+-----+-----+

```

7. Create a savepoint 'up1'.

```
mysql> savepoint up1;
```

Query OK, 0 rows affected (0.04 sec)

8. Update the first age of all the customers.

```
mysql> update customer set age=22 where cid=101;
```

Query OK, 1 row affected (0.05 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update customer set age=23 where cid=102;
```

```
Query OK, 1 row affected (0.04 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> update customer set age=24 where cid=103;
```

```
Query OK, 1 row affected (0.04 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
```

9. Display data from the table.

```
mysql> select * from customer;
```

```
+-----+-----+-----+-----+-----+
| cid | cname | age | city   | phnum   |
+-----+-----+-----+-----+-----+
| 101 | Larine | 22 | banglore | NULL |
| 102 | Keer   | 23 | banglore | NULL |
| 103 | Nish   | 24 | banglore | NULL |
| 104 | Tom    | 34 | banglore | 98674563 |
| 105 | Shamlal | 21 | banglore | 867593845 |
+-----+-----+-----+-----+-----+
```

```
5 rows in set (0.00 sec)
```

10. Create savepoint 'ins';

```
mysql> savepoint ins;
```

```
Query OK, 0 rows affected (0.00 sec)
```

11. Update all the customer's city of the first three customers.

```
mysql> update customer set city='ujre' where cid=103;
```

```
Query OK, 1 row affected (0.04 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> update customer set city='Badyar' where cid=102;
```

```
Query OK, 1 row affected (0.04 sec)
```

Rows matched: 1 Changed: 1 Warnings: 0

mysql> update customer set city='Beltangady' where cid=101;

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

12. Display data from the table.

mysql> select \* from customer;

```
+-----+-----+-----+-----+-----+
| cid | cname | age | city      | phnum  |
+-----+-----+-----+-----+-----+
| 101 | Larine | 22 | Beltangady | NULL   |
| 102 | Keer   | 23 | Badyar    | NULL   |
| 103 | Nish   | 24 | ujre      | NULL   |
| 104 | Tom    | 34 | banglore  | 98674563 |
| 105 | Shamlam | 21 | banglore  | 867593845 |
+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

13. Create savepoint 'up2'.

mysql> savepoint up2;

Query OK, 0 rows affected (0.00 sec)

14. Roll back to ins.

mysql> rollback to ins;

ERROR 1305 (42000): SAVEPOINT ins does not exist

15. Display data from the table.

mysql> set autocommit=0;

Query OK, 0 rows affected (0.00 sec)

mysql> update customer set city='Belgium' where cid=101;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> savepoint ins;
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> update customer set city='Delhi' where cid=102;
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> savepoint up1;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> update customer set city='Korea' where cid=103;
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> savepoint up2;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from customer;
```

```
+-----+-----+-----+-----+-----+
| cid | cname | age | city   | phnum   |
+-----+-----+-----+-----+-----+
| 101 | Larine | 22 | Belgum | NULL    |
| 102 | Keer   | 23 | Delhi  | NULL    |
| 103 | Nish   | 24 | Korea  | NULL    |
| 104 | Tom    | 34 | banglore | 98674563 |
| 105 | Shamlam | 21 | banglore | 867593845 |
```

```
+-----+-----+-----+-----+-----+
```

```
5 rows in set (0.00 sec)
```

```
mysql> rollback to up1;
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> select * from customer;
```

```
+-----+-----+-----+-----+-----+
| cid | cname | age | city   | phnum  |
+-----+-----+-----+-----+-----+
| 101 | Larine | 22 | Belgum | NULL   |
| 102 | Keer   | 23 | Delhi  | NULL   |
| 103 | Nish   | 24 | ujre   | NULL   |
| 104 | Tom    | 34 | banglore | 98674563 |
| 105 | Shamlam | 21 | banglore | 867593845 |
+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

16. Commit.

```
mysql> commit;
```

Query OK, 0 rows affected (0.00 sec)

17. Display data from the table.

```
mysql> select * from customer;
```

```
+-----+-----+-----+-----+-----+
| cid | cname | age | city   | phnum  |
+-----+-----+-----+-----+-----+
| 101 | Larine | 22 | Belgum | NULL   |
| 102 | Keer   | 23 | Delhi  | NULL   |
| 103 | Nish   | 24 | ujre   | NULL   |
| 104 | Tom    | 34 | banglore | 98674563 |
| 105 | Shamlam | 21 | banglore | 867593845 |
+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

18. Turn off the transactions.

```
mysql> set autocommit=1;
```

Query OK, 0 rows affected (0.00 sec)