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 (c_id int primary key,cname varchar(30) not null); Query OK, 0 rows affected (0.06 sec).

2. Insert three customer data into the table. mysql> insert into customer (c_id,cname) values (201,'darshan'),(202,'manjunath'),(203,'pallavi');
   Query OK, 3 rows affected (0.02 sec)
   Records: 3 Duplicates: 0 Warnings: 0

   mysql> select * from customer;
   ```
   +------+---------+
   | c_id | cname   |
   +------+---------+
   |  201 | darshan |
   |  202 | manjunath |
   |  203 |pallavi|
   +------+---------+
   ```
   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
       -> 'banglore',phnum int unique);
   Query OK, 3 rows affected (0.11 sec)
   Records: 3 Duplicates: 0 Warnings: 0

   mysql> desc customer;
   ```
   +-------+-------------+------+-----+----------+-------+
   | Field | Type        | Null | Key | Default  | Extra |
   +-------+-------------+------+-----+----------+-------+
   | c_id  | 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 (0.00 sec)

4. Turn on the transaction on mysql> set autocommit=0;
   Query OK, 0 rows affected (0.01 sec)

5. Insert another two customer data into the table without city value mysql> insert into customer (c_id ,cname,age,phnum) values (204,'manvitha',28,9481877686),(205,'ashika',21,7795870413);
   Query OK, 2 rows affected (0.00 sec)
   Records: 2 Duplicates: 0 Warnings: 0

6. Display data from the table.

```
mysql> select * from customer;
+------+---------+------+----------+----------+
| c_id | cname   | age  | city     | phnum    |
+------+---------+------+----------+----------+
|  201 | darshan | NULL | banglore |     NULL |
|  202 | manjunath| NULL | banglore |     NULL |
|  203 | pallavi | NULL | banglore |     NULL |
|  204 | manvitha|   28 | banglore | 9481877686 |
|  205 | ashika|   21 | banglore | 7795870413 |
+------+---------+------+----------+----------+
5 rows in set (0.00 sec)
```

7. Create a savepoint 'up1'.

```
mysql> savepoint up1;
Query OK, 0 rows affected (0.00 sec)
```

8. Update the first age of all the customers
```
mysql> update customer set age=37 where c_id=201;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select *from customer;
+------+---------+------+----------+----------+
| c_id | cname   | age  | city     | phnum    |
+------+---------+------+----------+----------+
|  201 | darshan |   37 | banglore |     NULL |
|  202 | manjunath | NULL | banglore |     NULL |
|  203 | pallavi | NULL | banglore |     NULL |
|  204 | manvitha |   28| banglore | 9481877686 |
|  205 | ashika |   21 | banglore | 7795870413 |
+------+---------+------+----------+----------+
```

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='udupi' where c_id=203;
```
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> update customer set city='ujire' where c_id=202;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> update customer set city='shimoga' where c_id=201;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

12. Display data from the table.

```
mysql> select *from customer;
+------+---------+------+----------+----------+
| c_id | cname   | age  | city     | phnum    |
+------+---------+------+----------+----------+
|  201 | darshan |   37 | shimoga  |     NULL |
|  202 | manjunath | NULL | ujire  |     NULL |
|  203 | pallavi | NULL | udupi    |     NULL |
|  204 | manvitha |   28 | banglore | 9481877686 |
|  205 | ashika|   21 | banglore | 7795870413 |
+------+---------+------+----------+----------+
```
13. Create savepoint 'up2'.

```
mysql> savepoint up2;
Query OK, 0 rows affected (0.00 sec)
```

14. . Roll back to ins.


```
mysql> savepoint up2;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql>  rollback to ins;
Query OK, 0 rows affected (0.00 sec)
```

15. Display data from the table.


```
mysql> savepoint up1;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> update customer set city='manipal' where c_id=203;
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;
+------+---------+------+-----------+----------+
| c_id | cname   | age  | city      | phnum    |
+------+---------+------+-----------+----------+
|  201 | darshan |   37 | shimoga  |     NULL |
|  202 | manjunath | NULL | Delhi    |     NULL |
|  203 | pallavi | NULL |manipal    |     NULL |
|  204 | manvitha |   28 | banglore | 9481877686 |
|  205 | ashika|   21 | banglore | 7795870413 |
+------+---------+------+-----------+----------+
```

5 rows in set (0.00 sec)

mysql> rollback to up1;
Query OK, 0 rows affected (0.00 sec)

mysql> select *from customer;
+------+---------+------+-----------+----------+
| c_id | cname | age | city | phnum |
+------+---------+------+-----------+----------+
201	darshan	37	shimoga	NULL
202	manjunath	NULL	Delhi	NULL
203	pallavi	NULL	banglore	NULL
204	manvitha	28	banglore	9481877686
205	ashika	21	banglore	7795870413
+------+---------+------+-----------+----------+
5 rows in set (0.00 sec)

16.commit

mysql> commit;
Query OK, 0 rows affected (0.01 sec).

17. Display data from the table

mysql> select * from customer;
+------+---------+------+-----------+----------+
| c_id | cname | age | city | phnum |
+------+---------+------+-----------+----------+
201	darshan	37	shimoga	NULL
202	manjunath	NULL	Delhi	NULL
203	pallavi	NULL	banglore	NULL
204	manvitha	28	banglore	9481877686
205	ashika	21	banglore || 7795870413
+------+---------+------+-----------+----------+
5 rows in set (0.00 sec)

18. Turn off the transaction. mysql>
set autocommit=1;
Query OK, 0 rows affected (0.00 sec)