Views Indexes Assignment

Roll No.: 243514
Name: Dhruva Rakesh B
Date: 29-03-2024

Vehicle

Vid	Vname	Price	desc
1	Activa	80000	ksldjfjksj
2	Santro	8,00000	kdjfkjsd
3	Motor bike	100000	fdkdfj

customer

Custid	Cname	address
1	Nilima	Pimpari
2	Ganesh	Pune
3	Pankaj	Mumbai

salesman

Sid	Sname	adress
10	Rajesh	mumbai
11	Seema	Pune
13	Rakhi	pune

cust-vehicle (customer is buying Many vehicle and 1 vehicle can be bought by many customers)

Custid	Vid	Sid	Buy_price
1	1	10	75000
1	2	10	7,90,000
2	3	11	80000
3	3	11	75000
3	2	10	8,00000

1. create all given tables

```
mysql> select * from vehicle;
+-----+-----------+--------+-------------+
| Vid | Vname     | Price  | Description |
+-----+-----------+--------+-------------+
|   1 | Activa    |  80000 | scooter     |
|   2 | Santro    | 800000 | car         |
|   3 | Motor bike| 100000 | bike        |
+-----+-----------+--------+-------------+
3 rows in set (0.00 sec)

mysql> select * from customer;
+--------+--------+---------+
| Custid | Cname  | address |
+--------+--------+---------+
|      1 | Nilima | Pimpiri |
|      2 | Ganesh | Pune    |
|      3 | Pankaj | Mumbai  |
+--------+--------+---------+
3 rows in set (0.00 sec)

mysql> select * from salesman;
+-----+--------+---------+
| Sid | Sname  | address |
+-----+--------+---------+
|  10 | Rajesh | Mumbai  |
|  11 | Seema  | Pune    |
|  13 | Rakhi  | Pune    |
+-----+--------+---------+
3 rows in set (0.00 sec)

mysql> select * from cust_vehicle;
+--------+-----+------+-----------+
| Custid | Vid | Sid  | Buy_price |
+--------+-----+------+-----------+
|      1 |   1 |   10 |     75000 |
|      1 |   2 |   10 |    790000 |
|      2 |   3 |   11 |     80000 |
|      3 |   2 |   10 |    800000 |
|      3 |   3 |   11 |     75000 |
+--------+-----+------+-----------+
5 rows in set (0.00 sec)
```

2. create index on vehicle table based on price

```
mysql> ALTER TABLE vehicle ADD INDEX (Price);
Query OK, 0 rows affected (0.17 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from vehicle;
+-----+-----------+--------+-------------+
| Vid | Vname     | Price  | Description |
+-----+-----------+--------+-------------+
|   1 | Activa    |  80000 | scooter     |
|   2 | Santro    | 800000 | car         |
|   3 | Motor bike| 100000 | bike        |
+-----+-----------+--------+-------------+
3 rows in set (0.00 sec)

mysql> desc vehicle;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| Vid         | int         | NO   | PRI | NULL    |       |
| Vname       | varchar(15) | YES  |     | NULL    |       |
| Price       | int         | YES  | MUL | NULL    |       |
| Description | varchar(25) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

3. find all customer name,vehicle name, salesman name, discount earn by all customer

```
mysql> SELECT c.Custid, c.Cname, v.Vname, s.Sname, (cv.Buy_price - v.Price) AS DiscountEarned
    -> FROM customer c
    -> INNER JOIN cust_vehicle cv ON c.Custid = cv.Custid
    -> INNER JOIN vehicle v ON cv.Vid = v.Vid
    -> INNER JOIN salesman s ON cv.Sid = s.Sid;
+--------+--------+------------+--------+----------------+
| Custid | Cname  | Vname      | Sname  | DiscountEarned |
+--------+--------+------------+--------+----------------+
|      1 | Nilima | Activa     | Rajesh |          -5000 |
|      3 | Pankaj | Santro     | Rajesh |              0 |
|      1 | Nilima | Santro     | Rajesh |         -10000 |
|      3 | Pankaj | Motor bike | Seema  |         -25000 |
|      2 | Ganesh | Motor bike | Seema  |         -20000 |
+--------+--------+------------+--------+----------------+
5 rows in set (0.02 sec)
```

4. find all customer name,vehicle name,salesman name for all salesman who stays in pune

```
mysql> SELECT c.Cname, v.Vname, s.Sname, s.address
    -> FROM customer c
    -> INNER JOIN cust_vehicle cv ON c.Custid = cv.Custid
    -> INNER JOIN vehicle v ON cv.Vid = v.Vid
    -> RIGHT JOIN salesman s ON cv.Sid = s.Sid
    -> WHERE s.address = 'Pune';
+--------+------------+-------+---------+
| Cname  | Vname      | Sname | address |
+--------+------------+-------+---------+
| Ganesh | Motor bike | Seema | Pune    |
| Pankaj | Motor bike | Seema | Pune    |
| NULL   | NULL       | Rakhi | Pune    |
+--------+------------+-------+---------+
3 rows in set (0.00 sec)
```

5. find how many customers bought motor bike

```
mysql> SELECT COUNT(c.Custid)
    -> FROM customer c
    -> INNER JOIN cust_vehicle cv ON c.Custid = cv.Custid
    -> INNER JOIN vehicle v ON cv.Vid = v.Vid
    -> WHERE v.Vname='Motor bike';
+-----------------+
| COUNT(c.Custid) |
+-----------------+
|               2 |
+-----------------+
1 row in set (0.00 sec)
```

6. create a view find_discount which displays output -------to create view

create view find_discount

as

select cname,vname,price,buying_price,price-buying_price "discount"

from customer c inner join cust_vehicle cv on c.custid=cv.cid inner join vehicle v on

v.vid=cv.vid

--------to display discount

select * from find_discount;

```
mysql> CREATE VIEW find_discount AS
    -> SELECT c.Cname, v.Vname, Price, Buy_price, Price-Buy_price 'discount'
    -> FROM customer c
    -> INNER JOIN cust_vehicle cv ON c.Custid=cv.Custid
    -> INNER JOIN vehicle v ON v.Vid=cv.Vid;
Query OK, 0 rows affected (0.04 sec)

mysql> SELECT * FROM find_discount;
+--------+------------+--------+-----------+----------+
| Cname  | Vname      | Price  | Buy_price | discount |
+--------+------------+--------+-----------+----------+
| Nilima | Activa     |  80000 |     75000 |     5000 |
| Pankaj | Santro     | 800000 |    800000 |        0 |
| Nilima | Santro     | 800000 |    790000 |    10000 |
| Pankaj | Motor bike | 100000 |     75000 |    25000 |
| Ganesh | Motor bike | 100000 |     80000 |    20000 |
+--------+------------+--------+-----------+----------+
5 rows in set (0.00 sec)
```

7. find all customer name, vehicle name, salesman name, discount earn by all customer

```
mysql> SELECT c.Cname, v.Vname, Price, s.Sname, Price-Buy_price 'discount earned'
    -> FROM customer c
    -> INNER JOIN cust_vehicle cv ON c.Custid=cv.Custid
    -> INNER JOIN vehicle v ON v.Vid=cv.Vid
    -> INNER JOIN salesman s ON cv.Sid = s.Sid;
+--------+------------+--------+--------+-----------------+
| Cname  | Vname      | Price  | Sname  | discount earned |
+--------+------------+--------+--------+-----------------+
| Nilima | Activa     |  80000 | Rajesh |            5000 |
| Pankaj | Santro     | 800000 | Rajesh |               0 |
| Nilima | Santro     | 800000 | Rajesh |           10000 |
| Pankaj | Motor bike | 100000 | Seema  |           25000 |
| Ganesh | Motor bike | 100000 | Seema  |           20000 |
+--------+------------+--------+--------+-----------------+
5 rows in set (0.00 sec)
```

8. create view my_hr to display empno,ename,job,comm for all employees who earn commission

```
mysql> CREATE VIEW my_hr AS
    -> SELECT empno, ename, job, comm
    -> FROM emp
    -> WHERE comm IS NOT NULL;
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> SELECT * FROM my_hr;
+-------+---------+----------+---------+
| empno | ename   | job      | comm    |
+-------+---------+----------+---------+
|     8 | uih_jhj | clerk    |   43.00 |
|  7499 | ALLEN   | SALESMAN |  300.00 |
|  7521 | WARD    | SALESMAN |  500.00 |
|  7654 | MARTIN  | SALESMAN | 1400.00 |
|  7844 | TURNER  | SALESMAN |    0.00 |
+-------+---------+----------+---------+
5 rows in set (0.01 sec)
```

9. create view mgr30 to display all employees from department 30

```
mysql> CREATE VIEW mgr30 AS
    -> SELECT *
    -> FROM emp
    -> WHERE deptno=30;
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> SELECT * FROM mgr30;
+-------+---------+----------+------+------------+---------+---------+--------+
| EMPNO | ENAME   | JOB      | MGR  | HIREDATE   | SAL     | COMM    | DEPTNO |
+-------+---------+----------+------+------------+---------+---------+--------+
|     8 | uih_jhj | clerk    | 5670 | 1981-05-06 |  543.00 |   43.00 |     30 |
|  7499 | ALLEN   | SALESMAN | 7698 | 1981-02-20 | 1600.00 |  300.00 |     30 |
|  7521 | WARD    | SALESMAN | 7698 | 1981-02-22 | 1250.00 |  500.00 |     30 |
|  7654 | MARTIN  | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 |     30 |
|  7698 | BLAKE   | MANAGER  | 7839 | 1981-05-01 | 2850.00 |    NULL |     30 |
|  7844 | TURNER  | SALESMAN | 7698 | 1981-09-08 | 1500.00 |    0.00 |     30 |
|  7900 | JAMES   | CLERK    | 7698 | 1981-12-03 |  950.00 |    NULL |     30 |
+-------+---------+----------+------+------------+---------+---------+--------+
7 rows in set (0.00 sec)
```

10. insert 3 employees in view mgr30 check whether insertion is possible

```
mysql> INSERT INTO mgr30 VALUES (329, 'Nilima', 'CLERK', 211, '2006-05-06', 12345, 1, 30);
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO mgr30 VALUES (345, 'Ganesh', 'SALESMAN', 235, '2008-07-12', 19876, 3, 30);
Query OK, 1 row affected (0.07 sec)

mysql> INSERT INTO mgr30 VALUES (367, 'Pankaj', 'MANAGER', 242, '2010-09-24', 12847, 5, 30);
Query OK, 1 row affected (0.03 sec)
```

```
mysql> SELECT * FROM mgr30;
+-------+---------+----------+------+------------+----------+---------+--------+
| EMPNO | ENAME   | JOB      | MGR  | HIREDATE   | SAL      | COMM    | DEPTNO |
+-------+---------+----------+------+------------+----------+---------+--------+
|     8 | uih_jhj | clerk    | 5670 | 1981-05-06 |   543.00 |   43.00 |     30 |
|   329 | Nilima  | CLERK    |  211 | 2006-05-06 | 12345.00 |    1.00 |     30 |
|   345 | Ganesh  | SALESMAN |  235 | 2008-07-12 | 19876.00 |    3.00 |     30 |
|   367 | Pankaj  | MANAGER  |  242 | 2010-09-24 | 12847.00 |    5.00 |     30 |
|  7499 | ALLEN   | SALESMAN | 7698 | 1981-02-20 |  1600.00 |  300.00 |     30 |
|  7521 | WARD    | SALESMAN | 7698 | 1981-02-22 |  1250.00 |  500.00 |     30 |
|  7654 | MARTIN  | SALESMAN | 7698 | 1981-09-28 |  1250.00 | 1400.00 |     30 |
|  7698 | BLAKE   | MANAGER  | 7839 | 1981-05-01 |  2850.00 |    NULL |     30 |
|  7844 | TURNER  | SALESMAN | 7698 | 1981-09-08 |  1500.00 |    0.00 |     30 |
|  7900 | JAMES   | CLERK    | 7698 | 1981-12-03 |   950.00 |    NULL |     30 |
+-------+---------+----------+------+------------+----------+---------+--------+
10 rows in set (0.00 sec)
```

11. insert 3 records in dept and display all records from dept

```
mysql> INSERT INTO dept VALUES (50, 'FINANCE', 'TEXAS');
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO dept VALUES (60, 'MARKETING', 'CALIFORNIA');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO dept VALUES (70, 'PRODUCTION', 'FLORIDA');
Query OK, 1 row affected (0.02 sec)
```

```
mysql> select * from dept;
+--------+------------+------------+
| DEPTNO | DNAME      | LOC        |
+--------+------------+------------+
|     10 | ACCOUNTING | NEW YORK   |
|     20 | RESEARCH   | DALLAS     |
|     30 | SALES      | CHICAGO    |
|     40 | OPERATIONS | BOSTON     |
|     50 | FINANCE    | TEXAS      |
|     60 | MARKETING  | CALIFORNIA |
|     70 | PRODUCTION | FLORIDA    |
+--------+------------+------------+
7 rows in set (0.00 sec)
```

12. use rollback command check what happens

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

mysql> select * from dept;
+--------+------------+------------+
| DEPTNO | DNAME      | LOC        |
+--------+------------+------------+
|     10 | ACCOUNTING | NEW YORK   |
|     20 | RESEARCH   | DALLAS     |
|     30 | SALES      | CHICAGO    |
|     40 | OPERATIONS | BOSTON     |
|     50 | FINANCE    | TEXAS      |
|     60 | MARKETING  | CALIFORNIA |
|     70 | PRODUCTION | FLORIDA    |
+--------+------------+------------+
7 rows in set (0.00 sec)
```

13. do the following

```
mysql> SET autocommit=0;
Query OK, 0 rows affected (0.00 sec)

mysql> SELECT * FROM emp;
+-------+----------+-----------+------+------------+----------+---------+--------+
| EMPNO | ENAME    | JOB       | MGR  | HIREDATE   | SAL      | COMM    | DEPTNO |
+-------+----------+-----------+------+------------+----------+---------+--------+
|     8 | uih_jhj  | clerk     | 5670 | 1981-05-06 |   543.00 |   43.00 |     30 |
|   329 | Nilima   | CLERK     |  211 | 2006-05-06 | 12345.00 |    1.00 |     30 |
|   345 | Ganesh   | SALESMAN  |  235 | 2008-07-12 | 19876.00 |    3.00 |     30 |
|   367 | Pankaj   | MANAGER   |  242 | 2010-09-24 | 12847.00 |    5.00 |     30 |
|  7369 | SMITH    | CLERK     | 7902 | 1980-12-17 |   800.00 |    NULL |     20 |
|  7499 | ALLEN    | SALESMAN  | 7698 | 1981-02-20 |  1600.00 |  300.00 |     30 |
|  7521 | WARD     | SALESMAN  | 7698 | 1981-02-22 |  1250.00 |  500.00 |     30 |
|  7566 | JONES    | MANAGER   | 7839 | 1981-04-02 |  2975.00 |    NULL |     20 |
|  7654 | MARTIN   | SALESMAN  | 7698 | 1981-09-28 |  1250.00 | 1400.00 |     30 |
|  7698 | BLAKE    | MANAGER   | 7839 | 1981-05-01 |  2850.00 |    NULL |     30 |
|  7782 | CLARK    | MANAGER   | 7839 | 1981-06-09 |  2450.00 |    NULL |     10 |
|  7788 | SCOTT    | ANALYST   | 7566 | 1982-12-09 |  3000.00 |    NULL |     20 |
|  7839 | KING     | PRESIDENT | NULL | 1981-11-17 |  5000.00 |    NULL |     10 |
|  7844 | TURNER   | SALESMAN  | 7698 | 1981-09-08 |  1500.00 |    0.00 |     30 |
|  7876 | ADAMS    | CLERK     | 7788 | 1983-01-12 |  1100.00 |    NULL |     20 |
|  7900 | JAMES    | CLERK     | 7698 | 1981-12-03 |   950.00 |    NULL |     30 |
|  7902 | FORD     | ANALYST   | 7566 | 1981-12-03 |  3000.00 |    NULL |     20 |
|  7934 | MILLER   | CLERK     | 7782 | 1982-01-23 |  1300.00 |    NULL |     10 |
+-------+----------+-----------+------+------------+----------+---------+--------+
18 rows in set (0.00 sec)
```

insert row in emp with empno 100

```
mysql> INSERT INTO EMP VALUES (100,'Benjamin','CLERK',7902,'2010-09-24',800,NULL,20);
Query OK, 1 row affected (0.00 sec)
```

insert row in emp with empno 101

```
mysql> INSERT INTO EMP VALUES (101,'Michael','SALESMAN',7698,'1980-02-22',1600,NULL,10);
Query OK, 1 row affected (0.00 sec)
```

insert row in emp with empno 102

```
mysql> INSERT INTO EMP VALUES (102,'Oliver','MANAGER',7839,'1981-02-02',1250,NULL,30);
Query OK, 1 row affected (0.00 sec)
```

add savepoint A

```
mysql> SAVEPOINT A;
Query OK, 0 rows affected (0.00 sec)
```

insert row in emp with empno 103

```
mysql> INSERT INTO EMP VALUES (103,'William','ANALYST',7566,'1981-04-28',2850,NULL,20);
Query OK, 1 row affected (0.00 sec)
```

insert row in emp with empno 104

```
mysql> INSERT INTO EMP VALUES (104,'Daniel','CLERK',7788,'1980-09-01',2450,NULL,10);
Query OK, 1 row affected (0.00 sec)
```

insert row in emp with empno 105

```
mysql> INSERT INTO EMP VALUES (105,'Henry','SALESMAN',7782,'1981-05-09',3000,NULL,30);
Query OK, 1 row affected (0.00 sec)
```

add savepoint B

```
mysql> SAVEPOINT B;
Query OK, 0 rows affected (0.00 sec)
```

delete emp with empno 100

```
mysql> DELETE FROM EMP WHERE empno=100;
Query OK, 1 row affected (0.00 sec)
```

delete emp with emp no 104

```
mysql> DELETE FROM EMP WHERE empno=104;
Query OK, 1 row affected (0.00 sec)
```

rollback upto svaepoint B

```
mysql> ROLLBACK TO B;
Query OK, 0 rows affected (0.00 sec)
```

check what all records will appear in employee table

```
mysql> SELECT * FROM emp;
+-------+----------+-----------+------+------------+----------+---------+--------+
| EMPNO | ENAME    | JOB       | MGR  | HIREDATE   | SAL      | COMM    | DEPTNO |
+-------+----------+-----------+------+------------+----------+---------+--------+
|     8 | uih_jhj  | clerk     | 5670 | 1981-05-06 |   543.00 |   43.00 |     30 |
|   100 | Benjamin | CLERK     | 7902 | 2010-09-24 |   800.00 |    NULL |     20 |
|   101 | Michael  | SALESMAN  | 7698 | 1980-02-22 |  1600.00 |    NULL |     10 |
|   102 | Oliver   | MANAGER   | 7839 | 1981-02-02 |  1250.00 |    NULL |     30 |
|   103 | William  | ANALYST   | 7566 | 1981-04-28 |  2850.00 |    NULL |     20 |
|   104 | Daniel   | CLERK     | 7788 | 1980-09-01 |  2450.00 |    NULL |     10 |
|   105 | Henry    | SALESMAN  | 7782 | 1981-05-09 |  3000.00 |    NULL |     30 |
|   329 | Nilima   | CLERK     |  211 | 2006-05-06 | 12345.00 |    1.00 |     30 |
|   345 | Ganesh   | SALESMAN  |  235 | 2008-07-12 | 19876.00 |    3.00 |     30 |
|   367 | Pankaj   | MANAGER   |  242 | 2010-09-24 | 12847.00 |    5.00 |     30 |
|  7369 | SMITH    | CLERK     | 7902 | 1980-12-17 |   800.00 |    NULL |     20 |
|  7499 | ALLEN    | SALESMAN  | 7698 | 1981-02-20 |  1600.00 |  300.00 |     30 |
|  7521 | WARD     | SALESMAN  | 7698 | 1981-02-22 |  1250.00 |  500.00 |     30 |
|  7566 | JONES    | MANAGER   | 7839 | 1981-04-02 |  2975.00 |    NULL |     20 |
|  7654 | MARTIN   | SALESMAN  | 7698 | 1981-09-28 |  1250.00 | 1400.00 |     30 |
|  7698 | BLAKE    | MANAGER   | 7839 | 1981-05-01 |  2850.00 |    NULL |     30 |
|  7782 | CLARK    | MANAGER   | 7839 | 1981-06-09 |  2450.00 |    NULL |     10 |
|  7788 | SCOTT    | ANALYST   | 7566 | 1982-12-09 |  3000.00 |    NULL |     20 |
|  7839 | KING     | PRESIDENT | NULL | 1981-11-17 |  5000.00 |    NULL |     10 |
|  7844 | TURNER   | SALESMAN  | 7698 | 1981-09-08 |  1500.00 |    0.00 |     30 |
|  7876 | ADAMS    | CLERK     | 7788 | 1983-01-12 |  1100.00 |    NULL |     20 |
|  7900 | JAMES    | CLERK     | 7698 | 1981-12-03 |   950.00 |    NULL |     30 |
|  7902 | FORD     | ANALYST   | 7566 | 1981-12-03 |  3000.00 |    NULL |     20 |
|  7934 | MILLER   | CLERK     | 7782 | 1982-01-23 |  1300.00 |    NULL |     10 |
+-------+----------+-----------+------+------------+----------+---------+--------+
24 rows in set (0.00 sec)
```

rollback upto A

```
mysql> ROLLBACK TO A;
Query OK, 0 rows affected (0.00 sec)
```

check what all records will appear in employee table

```
mysql> SELECT * FROM emp;
+-------+----------+-----------+------+------------+----------+---------+--------+
| EMPNO | ENAME    | JOB       | MGR  | HIREDATE   | SAL      | COMM    | DEPTNO |
+-------+----------+-----------+------+------------+----------+---------+--------+
|     8 | uih_jhj  | clerk     | 5670 | 1981-05-06 |   543.00 |   43.00 |     30 |
|   100 | Benjamin | CLERK     | 7902 | 2010-09-24 |   800.00 |    NULL |     20 |
|   101 | Michael  | SALESMAN  | 7698 | 1980-02-22 |  1600.00 |    NULL |     10 |
|   102 | Oliver   | MANAGER   | 7839 | 1981-02-02 |  1250.00 |    NULL |     30 |
|   329 | Nilima   | CLERK     |  211 | 2006-05-06 | 12345.00 |    1.00 |     30 |
|   345 | Ganesh   | SALESMAN  |  235 | 2008-07-12 | 19876.00 |    3.00 |     30 |
|   367 | Pankaj   | MANAGER   |  242 | 2010-09-24 | 12847.00 |    5.00 |     30 |
|  7369 | SMITH    | CLERK     | 7902 | 1980-12-17 |   800.00 |    NULL |     20 |
|  7499 | ALLEN    | SALESMAN  | 7698 | 1981-02-20 |  1600.00 |  300.00 |     30 |
|  7521 | WARD     | SALESMAN  | 7698 | 1981-02-22 |  1250.00 |  500.00 |     30 |
|  7566 | JONES    | MANAGER   | 7839 | 1981-04-02 |  2975.00 |    NULL |     20 |
|  7654 | MARTIN   | SALESMAN  | 7698 | 1981-09-28 |  1250.00 | 1400.00 |     30 |
|  7698 | BLAKE    | MANAGER   | 7839 | 1981-05-01 |  2850.00 |    NULL |     30 |
|  7782 | CLARK    | MANAGER   | 7839 | 1981-06-09 |  2450.00 |    NULL |     10 |
|  7788 | SCOTT    | ANALYST   | 7566 | 1982-12-09 |  3000.00 |    NULL |     20 |
|  7839 | KING     | PRESIDENT | NULL | 1981-11-17 |  5000.00 |    NULL |     10 |
|  7844 | TURNER   | SALESMAN  | 7698 | 1981-09-08 |  1500.00 |    0.00 |     30 |
|  7876 | ADAMS    | CLERK     | 7788 | 1983-01-12 |  1100.00 |    NULL |     20 |
|  7900 | JAMES    | CLERK     | 7698 | 1981-12-03 |   950.00 |    NULL |     30 |
|  7902 | FORD     | ANALYST   | 7566 | 1981-12-03 |  3000.00 |    NULL |     20 |
|  7934 | MILLER   | CLERK     | 7782 | 1982-01-23 |  1300.00 |    NULL |     10 |
+-------+----------+-----------+------+------------+----------+---------+--------+
21 rows in set (0.00 sec)
```

commit all changes

```
mysql> COMMIT;
Query OK, 0 rows affected (0.02 sec)
```

check what all records will appear in employee table

```
mysql> SELECT * FROM emp;
+-------+----------+-----------+------+------------+----------+---------+--------+
| EMPNO | ENAME    | JOB       | MGR  | HIREDATE   | SAL      | COMM    | DEPTNO |
+-------+----------+-----------+------+------------+----------+---------+--------+
|     8 | uih_jhj  | clerk     | 5670 | 1981-05-06 |   543.00 |   43.00 |     30 |
|   100 | Benjamin | CLERK     | 7902 | 2010-09-24 |   800.00 |    NULL |     20 |
|   101 | Michael  | SALESMAN  | 7698 | 1980-02-22 |  1600.00 |    NULL |     10 |
|   102 | Oliver   | MANAGER   | 7839 | 1981-02-02 |  1250.00 |    NULL |     30 |
|   329 | Nilima   | CLERK     |  211 | 2006-05-06 | 12345.00 |    1.00 |     30 |
|   345 | Ganesh   | SALESMAN  |  235 | 2008-07-12 | 19876.00 |    3.00 |     30 |
|   367 | Pankaj   | MANAGER   |  242 | 2010-09-24 | 12847.00 |    5.00 |     30 |
|  7369 | SMITH    | CLERK     | 7902 | 1980-12-17 |   800.00 |    NULL |     20 |
|  7499 | ALLEN    | SALESMAN  | 7698 | 1981-02-20 |  1600.00 |  300.00 |     30 |
|  7521 | WARD     | SALESMAN  | 7698 | 1981-02-22 |  1250.00 |  500.00 |     30 |
|  7566 | JONES    | MANAGER   | 7839 | 1981-04-02 |  2975.00 |    NULL |     20 |
|  7654 | MARTIN   | SALESMAN  | 7698 | 1981-09-28 |  1250.00 | 1400.00 |     30 |
|  7698 | BLAKE    | MANAGER   | 7839 | 1981-05-01 |  2850.00 |    NULL |     30 |
|  7782 | CLARK    | MANAGER   | 7839 | 1981-06-09 |  2450.00 |    NULL |     10 |
|  7788 | SCOTT    | ANALYST   | 7566 | 1982-12-09 |  3000.00 |    NULL |     20 |
|  7839 | KING     | PRESIDENT | NULL | 1981-11-17 |  5000.00 |    NULL |     10 |
|  7844 | TURNER   | SALESMAN  | 7698 | 1981-09-08 |  1500.00 |    0.00 |     30 |
|  7876 | ADAMS    | CLERK     | 7788 | 1983-01-12 |  1100.00 |    NULL |     20 |
|  7900 | JAMES    | CLERK     | 7698 | 1981-12-03 |   950.00 |    NULL |     30 |
|  7902 | FORD     | ANALYST   | 7566 | 1981-12-03 |  3000.00 |    NULL |     20 |
|  7934 | MILLER   | CLERK     | 7782 | 1982-01-23 |  1300.00 |    NULL |     10 |
+-------+----------+-----------+------+------------+----------+---------+--------+
21 rows in set (0.00 sec)
```

check whether you can roll back the contents.

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

mysql> SELECT * FROM emp;
+-------+----------+-----------+------+------------+----------+---------+--------+
| EMPNO | ENAME    | JOB       | MGR  | HIREDATE   | SAL      | COMM    | DEPTNO |
+-------+----------+-----------+------+------------+----------+---------+--------+
|     8 | uih_jhj  | clerk     | 5670 | 1981-05-06 |   543.00 |   43.00 |     30 |
|   100 | Benjamin | CLERK     | 7902 | 2010-09-24 |   800.00 |    NULL |     20 |
|   101 | Michael  | SALESMAN  | 7698 | 1980-02-22 |  1600.00 |    NULL |     10 |
|   102 | Oliver   | MANAGER   | 7839 | 1981-02-02 |  1250.00 |    NULL |     30 |
|   329 | Nilima   | CLERK     |  211 | 2006-05-06 | 12345.00 |    1.00 |     30 |
|   345 | Ganesh   | SALESMAN  |  235 | 2008-07-12 | 19876.00 |    3.00 |     30 |
|   367 | Pankaj   | MANAGER   |  242 | 2010-09-24 | 12847.00 |    5.00 |     30 |
|  7369 | SMITH    | CLERK     | 7902 | 1980-12-17 |   800.00 |    NULL |     20 |
|  7499 | ALLEN    | SALESMAN  | 7698 | 1981-02-20 |  1600.00 |  300.00 |     30 |
|  7521 | WARD     | SALESMAN  | 7698 | 1981-02-22 |  1250.00 |  500.00 |     30 |
|  7566 | JONES    | MANAGER   | 7839 | 1981-04-02 |  2975.00 |    NULL |     20 |
|  7654 | MARTIN   | SALESMAN  | 7698 | 1981-09-28 |  1250.00 | 1400.00 |     30 |
|  7698 | BLAKE    | MANAGER   | 7839 | 1981-05-01 |  2850.00 |    NULL |     30 |
|  7782 | CLARK    | MANAGER   | 7839 | 1981-06-09 |  2450.00 |    NULL |     10 |
|  7788 | SCOTT    | ANALYST   | 7566 | 1982-12-09 |  3000.00 |    NULL |     20 |
|  7839 | KING     | PRESIDENT | NULL | 1981-11-17 |  5000.00 |    NULL |     10 |
|  7844 | TURNER   | SALESMAN  | 7698 | 1981-09-08 |  1500.00 |    0.00 |     30 |
|  7876 | ADAMS    | CLERK     | 7788 | 1983-01-12 |  1100.00 |    NULL |     20 |
|  7900 | JAMES    | CLERK     | 7698 | 1981-12-03 |   950.00 |    NULL |     30 |
|  7902 | FORD     | ANALYST   | 7566 | 1981-12-03 |  3000.00 |    NULL |     20 |
|  7934 | MILLER   | CLERK     | 7782 | 1982-01-23 |  1300.00 |    NULL |     10 |
+-------+----------+-----------+------+------------+----------+---------+--------+
21 rows in set (0.00 sec)
```

14. create a procedure getMin(deptno,minsal) to find minimum salary of given table.

```
mysql> delimiter //
mysql> CREATE PROCEDURE getMin(IN edn INT, OUT minsal DECIMAL(10,2))
    -> BEGIN
    ->      SELECT MIN(sal) INTO minsal
    ->      FROM emp
    ->      WHERE deptno=edn;
    -> END//
Query OK, 0 rows affected (0.02 sec)

mysql> delimiter ;
mysql> CALL getMin(10, @ms);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT @ms AS 'Minimum Salary';
+----------------+
| Minimum Salary |
+----------------+
|        1300.00 |
+----------------+
1 row in set (0.00 sec)
```