NAME :- Divyang Bagla

PANEL :- D

ROLL NO. :- PD33 (D2)

Assignment – 4

Problem statement 1 :-

Create a database which consist of the following tables with appropriate constraints like primary key, foreign key, check constrains, not null etc.

- Hotel (HotelNo, Name, City) HotelNo is the primary key
- Room (RoomNo, HotelNo, Type, Price)
- Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)
- Guest (GuestNo, GuestName, GuestAddress) GuestNo is primary key

Solve the following queries

1. How many hotels are there?

```
MySQL  localhost:33060+ ssl  assn2  SQL > select count(hotelno)as tot_hotels from hotels;
+------------+
| tot_hotels |
+------------+
|          3 |
+------------+
1 row in set (0.2873 sec)
```

2. List the price and type of all rooms at the Grosvenor Hotel.

```
MySQL  localhost:33060+ ssl  assn2  SQL > select r.price ,r.type from room r , hotels h where r.hotelno = h.hotelno and h.hotelname = 'Grosvenor';
+-------+------+
| price | type |
+-------+------+
| 50000 | norm |
+-------+------+
1 row in set (0.0439 sec)
```

3. List the number of rooms in each hotel.

```
MySQL  localhost:33060+ ssl  assn2  SQL > select count(roomno) from room group by hotelno;
+---------------+
| count(roomno) |
+---------------+
|             1 |
|             1 |
|             1 |
+---------------+
3 rows in set (0.0007 sec)
```

4. Update the price of all rooms by 5%.

```
MySQL  localhost:33060+ ssl  assn2  SQL > update room set price = price + price*0.05 ;
Query OK, 3 rows affected (0.1310 sec)

Rows matched: 3  Changed: 3  Warnings: 0
MySQL  localhost:33060+ ssl  assn2  SQL > select * from room;
+--------+------+-------+---------+
| roomno | type | price | hotelno |
+--------+------+-------+---------+
|      1 | delu | 26250 |       1 |
|      2 | norm | 52500 |       2 |
|      3 | Doub | 10500 |       3 |
+--------+------+-------+---------+
```

5. List full details of all hotels in London.

```
MySQL  localhost:33060+ ssl  assn2  SQL > select * from hotels h , room r,booking b where r.hotelno=h.hotelno and b.hotelno = h.hotelno;
+---------+------------+--------+--------+------+-------+---------+--------+---------+---------+------------+------------+
| hotelno | hotelname  | city   | roomno | type | price | hotelno | roomno | guestno | hotelno | datefrom   | dateto     |
+---------+------------+--------+--------+------+-------+---------+--------+---------+---------+------------+------------+
|       1 | jw marriott| pune   |      1 | delu | 26250 |       1 |      1 |       1 |       1 | 2020-01-09 | 2020-01-12 |
|       2 | Grosvenor  | London |      2 | norm | 52500 |       2 |      2 |       2 |       2 | 2020-03-04 | 2020-04-19 |
|       3 | tajhotel   | Mumbai |      3 | Doub | 10500 |       3 |      3 |       3 |       3 | 2020-12-23 | 2020-12-27 |
+---------+------------+--------+--------+------+-------+---------+--------+---------+---------+------------+------------+
3 rows in set (0.0375 sec)
```

6. What is the average price of a room?

```
MySQL  localhost:33060+ ssl  assn2  SQL > select avg(price) from room group by(hotelno);
+------------+
| avg(price) |
+------------+
|      19625 |
|      52500 |
|      10500 |
+------------+
3 rows in set (0.0996 sec)
```

7. List all guests currently staying at the Grosvenor Hotel.

```
MySQL  localhost:33060+ ssl  assn2  SQL > select g.guestno , g.guestname from guest g ,hotels h ,booking b where b.hotelno = h.hotelno and b.guestno = g.guestno and h.hotelname='Grosvenor';
+---------+-----------+
| guestno | guestname |
+---------+-----------+
|       2 | Raj       |
+---------+-----------+
1 row in set (0.0730 sec)
```

8. List the number of rooms in each hotel in London.

```
MySQL  localhost:33060+ ssl  assn2  SQL > select count(r.roomno) as rooms from room r , hotels h where r.hotelno = h.hotelno and h.city ='London';
+-------+
| rooms |
+-------+
|     1 |
+-------+
1 row in set (0.0008 sec)
```

9. Create one view on above database and query it.

```
MySQL  localhost:33060+ ssl  assn2  SQL > create view roomdetails as select roomno , type , price from room;
Query OK, 0 rows affected (0.2710 sec)
MySQL  localhost:33060+ ssl  assn2  SQL > select * from roomdetails;
+--------+------+-------+
| roomno | type | price |
+--------+------+-------+
|      1 | delu | 26250 |
|      2 | norm | 52500 |
|      3 | Doub | 10500 |
|      4 | Delu | 13000 |
+--------+------+-------+
4 rows in set (0.0870 sec)
```

Problem statement 2 :-

Create a database which consist of the following tables with appropriate constraints like primary key, foreign key, check constrains, not null etc.

- emp (eno,ename,Zip,hdate)
- parts(pno,pname,qty_on_hand, price)
- customer(cno,cname,street,Zip,phone)
- order(ono,cno,receivedate,shippeddate)
- odetails(ono,pno,qty)
- zipcode(Zip,city)

```
MySQL  localhost:33060+ ssl  employee  SQL > select * from customer;
+-----+----------+----------------+--------+------------+
| cno | cname    | street         | zip    | phone      |
+-----+----------+----------------+--------+------------+
| 100 | Sunil    | Rockford street| 600606 | 9726289521 |
| 101 | Ajay     | Bell road      | 400290 | 9726289521 |
| 102 | Neeraj   | Shivaji marg   | 400101 | 9726289521 |
| 103 | Prashant | Victoria street| 401788 | 9726289521 |
+-----+----------+----------------+--------+------------+
4 rows in set (0.0246 sec)
MySQL  localhost:33060+ ssl  employee  SQL > select * from emp;
+------+---------+--------+------------+
| eno  | ename   | zip    | hdate      |
+------+---------+--------+------------+
| 1000 | John    | 400101 | 2001-09-01 |
| 1001 | Smith   | 400290 | 2002-09-19 |
| 1002 | Britney | 401788 | 2001-06-08 |
| 1003 | Edward  | 600606 | 2004-04-12 |
+------+---------+--------+------------+
4 rows in set (0.0161 sec)
MySQL  localhost:33060+ ssl  employee  SQL > select * from odetails;
+-----+------+-----+
| ono | pno  | qty |
+-----+------+-----+
|  11 | 1059 |  10 |
|  12 | 1060 |   1 |
|  13 | 1058 |   5 |
|  14 | 1061 |   2 |
+-----+------+-----+
4 rows in set (0.0006 sec)
MySQL  localhost:33060+ ssl  employee  SQL > select * from orders;
+-----+-----+------------+------------+
| ono | cno | recddate   | shippeddate|
+-----+-----+------------+------------+
|  11 | 102 | 2005-09-11 | 2005-09-08 |
|  12 | 100 | 2005-09-20 | 2005-09-19 |
|  13 | 103 | 2005-08-05 | 2005-08-07 |
|  14 | 101 | 2005-10-05 | 2005-10-06 |
+-----+-----+------------+------------+
4 rows in set (0.0005 sec)
MySQL  localhost:33060+ ssl  employee  SQL > select * from parts;
+------+-----------+-------------+-------+
| pno  | pname     | qty_on_hand | price |
+------+-----------+-------------+-------+
| 1058 | LED       |         200 |     4 |
| 1059 | Breadboard|         300 |   100 |
| 1060 | Resistor  |         500 |    10 |
| 1061 | CRO       |          50 |  2500 |
+------+-----------+-------------+-------+
4 rows in set (0.0006 sec)
MySQL  localhost:33060+ ssl  employee  SQL > select * from zipcode;
+--------+-----------+
| zip    | city      |
+--------+-----------+
| 311910 | Jaipur    |
| 400101 | Mumbai    |
| 400290 | Pune      |
| 401788 | Hyderabad |
| 600606 | Bangalore |
+--------+-----------+
5 rows in set (0.0381 sec)
```

Solve the following queries

1. get pno,pname values of parts that are priced less than $20.00

```
MySQL  localhost:33060+ ssl  employee  SQL > select pno , pname from parts where price < 20;
+------+----------+
| pno  | pname    |
+------+----------+
| 1058 | LED      |
| 1060 | Resistor |
+------+----------+
2 rows in set (0.0298 sec)
```

2. get the ono & cname values of customer whose orders have not yet been shipped

```
MySQL  localhost:33060+ ssl  employee  SQL > select o.ono , c.cname from customer c , orders o where o.cno = c.cno and o.shippeddate is NULL;
+-----+-------+
| ono | cname |
+-----+-------+
|  15 | Ajay  |
+-----+-------+
1 row in set (0.0009 sec)
MySQL  localhost:33060+ ssl  employee  SQL >
```

3. get the cname values of customer who have placed order with emp living in 'Pune' or 'mumbai'

```
MySQL  localhost:33060+ ssl  employee  SQL > select c.cname from customer c , emp e, zipcode z
  -> where z.zip = c.zip and e.zip = z.zip and (z.city = 'Pune' or z.city = 'Mumbai');
+--------+
| cname  |
+--------+
| Ajay   |
| Neeraj |
+--------+
2 rows in set (0.1699 sec)
```

4. get the cities in which customer or emp are located

```
MySQL  localhost:33060+ ssl  employee  SQL > select distinct (z.city) from zipcode z , emp e , customer c  where c.zip = z.zip or e.zip = z.zip;
+-----------+
| city      |
+-----------+
| Mumbai    |
| Pune      |
| Hyderabad |
| Bangalore |
+-----------+
4 rows in set (0.1800 sec)
```

5. get the totalquantity of part 1060 that has been ordered

```
MySQL  localhost:33060+ ssl  employee  SQL > select sum(qty) from odetails where pno = 1060;
+----------+
| sum(qty) |
+----------+
|        1 |
+----------+
1 row in set (0.0804 sec)
```

6. get the total no of customer

```
MySQL  localhost:33060+ ssl  employee  SQL > select count(cno) from customer;
+------------+
| count(cno) |
+------------+
|          4 |
+------------+
1 row in set (0.2384 sec)
```

7. Create one view

```
MySQL  localhost:33060+ ssl  employee  SQL > create view partsdetails as select pno , pname , price from parts;
Query OK, 0 rows affected (0.3572 sec)
MySQL  localhost:33060+ ssl  employee  SQL > select * from partsdetails;
+------+-----------+-------+
| pno  | pname     | price |
+------+-----------+-------+
| 1058 | LED       |     4 |
| 1059 | Breadboard|   100 |
| 1060 | Resistor  |    10 |
| 1061 | CRO       |  2500 |
+------+-----------+-------+
4 rows in set (0.0757 sec)
```