

# **DATABASE SYSTEMS LAB**



## **HOME WORK # 03**

Submitted By

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## Design SQL queries that answer the questions listed below

1. List all hotels whose name's third alphabet has a 't'. Order the result in descending order by hotelname.

```
MariaDB [guest_house]> SELECT HOTELNAME FROM HOTEL WHERE HOTELNAME LIKE "__t%" ORDER BY HOTELNAME DESC;
+-----+
| HOTELNAME |
+-----+
| Watergate |
| Latham    |
+-----+
2 rows in set (0.001 sec)
```

2. List all those hotels, rooms which were booked by those guests who are from Glasgow and their first name is Tony or last name is Farrel. List the guest detail as well.

```
MariaDB [GUEST_HOUSE]> SELECT * from hotel natural join booking natural join guest WHERE
-> guestname LIKE "%Tony%" or guestname Like "%Farrel%" and
-> guestaddress= "12 Park Pl Glasgow" or guestaddress="6 Achray St, Glasgow";
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| guestno | hotelno | hotelname | city | datefrom | dateto | roomno | guestname | guestaddress |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10007 | dc01 | Latham | Berlin | 2006-05-13 | 2011-05-15 | 1001 | Tony Shaw | 12 Park Pl, Glasgow |
| 10005 | fb01 | Grosvenor | London | 2004-05-02 | 2004-05-07 | 501 | Carol Farrel | 6 Achray St, Glasgow |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.022 sec)
```

3. List the room no. along with its hotel no and hotelname, whose price is second most highest.

```
MariaDB [GUEST_HOUSE]> select hotelno ,hotelname ,price from hotel natural join room
-> order by price desc LIMIT 1,1;
+-----+-----+-----+
| hotelno | hotelname | price |
+-----+-----+-----+
| ch01 | Omni Shoreham | 59.99 |
+-----+-----+-----+
1 row in set (0.001 sec)
```

4. List all the room nos. which were booked in the period 2005-2010. Also display the room's hotel no and hotel name.

```
MariaDB [guest_house]> select roomno, hotelno, hotelname from hotel natural join room
-> natural join booking where datefrom AND dateto BETWEEN "2004-01-01" AND "2010-01-01";
```

roomno	hotelno	hotelname
801	ch02	Phoenix Park
501	fb01	Grosvenor
601	fb01	Grosvenor
501	fb01	Grosvenor

```
4 rows in set (0.065 sec)
```

5. List the room no. along with its hotel no and hotelname, who have third most lowest price in the room category of type single.

```
MariaDB [guest_house]> select roomno, hotelno, hotelname from hotel natural join room natural join
-> booking where type="single" order by price desc limit 2,1;
```

roomno	hotelno	hotelname
501	fb01	Grosvenor

```
1 row in set (0.001 sec)
```

6. List all the hotel's name which have double as well as family type rooms.

```
MariaDB [guest_house]> select hotelname from hotel, room where type="double" AND type="family";
```

Empty set (0.000 sec)

7. List all the hotels which have single as well as double type rooms but no family type room.

```
MariaDB [guest_house]> select hotelname from hotel natural join room where type='single' AND type='double';  
Empty set (0.000 sec)
```

8. List all double or family rooms with a price below £40.00 per night, in ascending order of price. Also display the room's hotel no and hotel name.

```
MariaDB [guest_house]> select hotelname,hotelno,type from hotel natural join room  
-> where price < 40.00 AND type="double" OR type="family";  
+-----+-----+-----+  
| hotelname | hotelno | type |  
+-----+-----+-----+  
| Omni Shoreham | ch01 | family |  
| Phoenix Park | ch02 | double |  
| Latham | dc01 | double |  
| Latham | dc01 | family |  
| Grosvenor | fb01 | double |  
| Grosvenor | fb01 | family |  
+-----+-----+-----+  
6 rows in set (0.073 sec)
```

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

```
MariaDB [guest_house]> select type, price from hotel natural join room where hotelname="Grosvenor";  
+-----+-----+  
| type | price |  
+-----+-----+  
| single | 19.00 |  
| double | 29.00 |  
| family | 39.00 |  
+-----+-----+  
3 rows in set (0.001 sec)
```

10. List all guests currently staying at the Watergate Hotel.

```
MariaDB [guest_house]> select guestname from hotel natural join booking natural join  
-> guest where hotelname="Watergate";  
+-----+  
| guestname |  
+-----+  
| John Kay |  
| Mary Tregear |  
+-----+  
2 rows in set (0.001 sec)
```

11. List those hotels which have greater than 2 rooms.

```
MariaDB [guest_house]> select hotelname from hotel natural join room where roomno > 2;  
+-----+  
| hotelname |  
+-----+  
| Omni Shoreham |  
| Omni Shoreham |  
| Phoenix Park |  
| Phoenix Park |  
| Latham |  
| Latham |  
| Latham |  
| Grosvenor |  
| Grosvenor |  
| Grosvenor |  
| Watergate |  
| Watergate |  
+-----+  
12 rows in set (0.011 sec)
```

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

```
MariaDB [guest_house]> select roomno from hotel natural join room where city="London";  
+-----+  
| roomno |  
+-----+  
| 1001 |  
| 1101 |  
| 701 |  
| 801 |  
| 501 |  
| 601 |  
| 701 |  
+-----+  
7 rows in set (0.001 sec)
```

