

Database Design, CSCI 340, Spring 2016
JOIN operations Chapter 6, pages 158-164, Jan. 29

The following refer to the HotelReservations SQLServer database. This database is similar to the MySQL HotelReservations database, however, rather than bookings, this database has visit records. The sample data, (the database extension) is also different.

Connect to SQL Server:

Start/ All Programs/ Microsoft SQL Server 2008 R2/ Microsoft SQL Server Management Server Client

1. In the "Connect to Server" dialog box enter:
 - a. Server type: Database Engine
 - b. Server name: mtcs-sql.butte.campus
 - c. Authentication: Windows Authentication
2. In the "Object Explorer" window of the manager, select the "Hotel Reservations" database
3. Select "New Query" (upper left corner) to open a new query tab.
4. Type your query and click execute (red exclamation symbol)

1. For each room in the database, give the hotel name, city, room number and room type. Order these by the city, by the hotel name. (The result will contain 24 records.)

```
SELECT hotelName, city, roomNo, Room.type
FROM Hotel JOIN Room
ON Hotel.hotelNo= Room.hotelNo
ORDER BY city, hotelName
```

2. For each room in Butte, give the hotel name, room number and room type. Your result should have helpful column names and should be ordered by hotel name, room number. (The result will contain 11 records.)

```
SELECT hotelName AS 'Hotel Name',
       roomNo AS 'Room Number',
       type AS 'Room type'
FROM Hotel JOIN Room
ON Hotel.hotelNo= Room.hotelNo
WHERE city='Butte'
ORDER BY city, hotelName
```

- List the hotel number and the number of rooms (use the column heading “Number of Rooms”), of all hotels. Order these by the hotel number.

Result:

	hotelNo	Number of Rooms
1	H021	5
2	H111	2
3	H22	4
4	H333	4
5	H555	3
6	H556	3
7	H777	3

```
SELECT Hotel.hotelNo, COUNT(roomNo)AS 'Number of Rooms'
FROM Hotel JOIN Room
        ON Hotel.hotelNo= Room.hotelNo
GROUP BY Hotel.hotelNo
ORDER BY Hotel.hotelNo
```

- List the hotel name, city and number of rooms (use the column heading “Number of Rooms”), of all hotels. Order these by the city, and within the same city, by the hotel name. (Note that MySQL allows attributes in the select statement which are not part of the “group by” clause and not aggregated. SQLServer does not.)

Result:

	hotelName	city	Number of Rooms
1	Capri	Butte	7
2	Carlson	Missoula	1
3	Finlen	Butte	3
4	Grosvenor	London	1
5	Hampton Inn	Butte	1

```
SELECT hotelName, city, COUNT(roomNo)AS 'Number of Rooms'
FROM Hotel JOIN Room
        ON Hotel.hotelNo= Room.hotelNo
GROUP BY Hotel.hotelNo, hotelName, city
ORDER BY city, hotelName
```

- List the hotel name, city, guest name and arrival date of all visits. Order these by the guest number. (The result has 11 records.)

```
SELECT hotelName, city, guestName, VisitRecords.dateFrom
FROM Hotel JOIN VisitRecords
        ON Hotel.hotelNo=VisitRecords.hotelNo
JOIN Guest
        ON VisitRecords.guestNo=Guest.guestNo
ORDER BY Guest.guestName
```