**SQL>**

**SQL> -- COMP 2714**

**SQL> -- SET 2B**

**SQL> -- Assignment ASN02**

**SQL> -- Nguyen, Vu Phuong Quynh (Billy) A01181323**

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**SQL>**

**SQL> ALTER SESSION SET NLS\_DATE\_FORMAT='YYYY-MM-DD';**

**Session altered.**

**SQL> SELECT SYSDATE**

**2 FROM DUAL;**

**SYSDATE**

**----------**

**2020-01-18**

**SQL>**

**SQL> -- Q1. List hotelName, hotelAddress, room type, and price of all**

**SQL> -- Single, Double, or Family rooms in city Paris in France**

**SQL> -- with a price below 100.00 per night, in descending order of hotelName,**

**SQL> -- ascending order of price and descending order of type once.**

**SQL> SELECT DISTINCT h.hotelName, h.hotelAddress, r.type, r.price**

**2 FROM Hotel h**

**3 INNER JOIN Room r**

**4 ON h.hotelNo = r.hotelNo**

**5 WHERE h.hotelAddress LIKE '%Paris%'**

**6 AND (h.country = 'France')**

**7 AND ((r.type = 'Single')**

**8 OR (r.type = 'Double')**

**9 OR (r.type = 'Family'))**

**10 AND (r.price < 100.00)**

**11 ORDER BY h.hotelName DESC,**

**12 r.price ASC,**

**13 r.price DESC;**

**HOTELNAME HOTELADDRESS TYPE PRICE**

**---------------- ---------------------------------------- -------- ----------**

**Holiday Inn 56 Rue Bonaparte, Paris Single 35**

**Holiday Inn 56 Rue Bonaparte, Paris Double 50**

**Grosvenor Hotel 100 Rue St. Dominique, Paris Single 40**

**Grosvenor Hotel 100 Rue St. Dominique, Paris Double 55**

**Grosvenor Hotel 100 Rue St. Dominique, Paris Family 85**

**Grosvenor Hotel 100 Rue St. Dominique, Paris Family 90**

**6 rows selected.**

**SQL>**

**SQL> -- Q2. List the hotelName, hotelAddress, roomNo, dateFrom and dateTo,**

**SQL> -- where no dateTo has been specified in city Surrey in Canada**

**SQL> SELECT hotelName, hotelAddress, roomNo, dateFrom, dateTo**

**2 FROM Hotel h**

**3 INNER JOIN Booking b**

**4 ON h.hotelNo = b.hotelNo**

**5 WHERE country = 'Canada'**

**6 AND hotelAddress LIKE '%Surrey%'**

**7 AND hotelAddress NOT LIKE '%North Surrey%'**

**8 AND hotelAddress NOT LIKE '%South Surrey%'**

**9 AND country = 'Canada'**

**10 AND dateTo IS NULL;**

**HOTELNAME HOTELADDRESS ROOMNO DATEFROM DATETO**

**---------------- ---------------------------------------- ---------- ---------- ----------**

**Holiday Hotel 789 Paris St.,Surrey 10 2020-01-21**

**SQL>**

**SQL> -- Q3a. List the average price of a room for each hotel.**

**SQL> -- List it with hotelName and in hotelName order.**

**SQL> SELECT hotelName, AVG(price) AS AveragePrice**

**2 FROM Hotel h**

**3 INNER JOIN Room r**

**4 ON h.HotelNo = r.hotelNo**

**5 GROUP BY hotelName**

**6 ORDER BY hotelName;**

**HOTELNAME AVERAGEPRICE**

**---------------- ------------**

**Delta Inn 75**

**Grosvenor Hotel 69.6153846**

**Grosvenor Inn 105**

**Holiday Hotel 100.833333**

**Holiday Inn 41.4285714**

**Imperial Palace 115**

**Park Royal Hotel 67**

**The Ramada 162.5**

**8 rows selected.**

**SQL>**

**SQL> -- Q3b. List the average price of a room for each hotel in each country**

**SQL> -- that is not Deluxe. List with the country and hotelName,**

**SQL> -- and in the country then hotelName order.**

**SQL> SELECT country, hotelName, AVG(price) AS AveragePrice**

**2 FROM Hotel h**

**3 INNER JOIN Room r**

**4 ON h.hotelNo = r.hotelNo**

**5 WHERE type <> 'Deluxe'**

**6 GROUP BY country, hotelName**

**7 ORDER BY country, hotelName;**

**COUNTRY HOTELNAME AVERAGEPRICE**

**-------------------- ---------------- ------------**

**Canada Delta Inn 75**

**Canada Grosvenor Inn 88.3333333**

**Canada Holiday Hotel 84.4444444**

**Canada Imperial Palace 100**

**Canada Park Royal Hotel 67**

**France Grosvenor Hotel 55.5**

**France Holiday Inn 41.4285714**

**USA The Ramada 127.272727**

**8 rows selected.**

**SQL>**

**SQL> -- Q4. List the total Revenue with the hotelName, and only if the total revenue**

**SQL> -- is between $500 to $1000. List in hotelName order**

**SQL> SELECT hotelName, SUM(price) AS Revenue**

**2 FROM Hotel h**

**3 INNER JOIN Room r**

**4 ON h.hotelNo = r.hotelNo**

**5 WHERE r.type = 'Double'**

**6 GROUP BY h.hotelName**

**7 HAVING SUM(price) BETWEEN 500 AND 1000**

**8 ORDER BY Revenue DESC;**

**HOTELNAME REVENUE**

**---------------- ----------**

**Delta Inn 900**

**Park Royal Hotel 688**

**The Ramada 600**

**SQL>**

**SQL> -- Q5. List the type, price, numbers of rooms for each possible combination of**

**SQL> -- type and price of all rooms at the hotels with `Grosvenor' in name.**

**SQL> -- List only if the number of rooms for each type is greater than 3.**

**SQL> SELECT DISTINCT hotelName, type, price, COUNT(\*) AS Combinations**

**2 FROM Hotel h**

**3 INNER JOIN Room r**

**4 ON h.hotelNo = r.hotelNo**

**5 WHERE h.hotelName LIKE '%Grosvenor%'**

**6 GROUP BY h.hotelName, r.type, r.price**

**7 HAVING COUNT(\*) > 3;**

**HOTELNAME TYPE PRICE COMBINATIONS**

**---------------- -------- ---------- ------------**

**Grosvenor Inn Deluxe 155 5**

**Grosvenor Inn Family 125 5**

**Grosvenor Hotel Double 55 4**

**Grosvenor Inn Single 45 5**

**Grosvenor Hotel Single 40 4**

**Grosvenor Inn Double 95 5**

**6 rows selected.**

**SQL>**

**SQL> -- Q6. List all the guests currently staying at the Grosvenor Hotel.**

**SQL> -- Include all guest information in the output.**

**SQL>**

**SQL> SELECT roomNo, g.guestNo, guestName, guestAddress, g.country**

**2 FROM Booking b**

**3 INNER JOIN Guest g**

**4 ON b.guestNo = g.guestNo**

**5 INNER JOIN Hotel h**

**6 ON b.hotelNo = h.hotelNo**

**7 WHERE dateFrom <= DATE'2020-01-21' AND**

**8 (dateTo IS NULL OR dateTo >= DATE'2020-01-21')**

**9 AND hotelName LIKE '%Grosvenor Hotel%';**

**ROOMNO GUESTNO GUESTNAME GUESTADDRESS COUNTRY**

**---------- ---------- --------------- ---------------------------------------- --------------------**

**7 5 Rick Hamilton 987 King Edward Road, Paris France**

**4 12 Sundeep Mohan 1000 Victoria Avenue, Paris France**

**SQL>**

**SQL> -- Q7. List the total income from Bookings with `Grosvenor' in name today.**

**SQL> SELECT hotelName, SUM(price) AS Income**

**2 FROM Booking b**

**3 INNER JOIN Room r**

**4 ON b.roomNo = r.roomNo**

**5 INNER JOIN Hotel h**

**6 ON b.hotelNo = h.hotelNo**

**7 WHERE h.hotelName LIKE '%Grosvenor%'**

**8 AND dateFrom <= DATE'2020-01-21' AND**

**9 (dateTo IS NULL OR dateTo >= DATE'2020-01-21')**

**10 GROUP BY h.hotelName**

**11 ORDER By h.hotelName;**

**HOTELNAME INCOME**

**---------------- ----------**

**Grosvenor Hotel 1261**

**Grosvenor Inn 553**

**SQL>**

**SQL> -- Q8. List hotelNo, hotelName, type, total income of each room type**

**SQL> -- from bookings for each hotel today. With an ascending order of hotelName and type.**

**SQL> SELECT DISTINCT b.hotelNo, hotelName, type, SUM(price) AS Income**

**2 FROM Booking b**

**3 INNER JOIN Hotel h**

**4 ON b.HotelNo = h.hotelNo**

**5 INNER JOIN Room r**

**6 ON b.roomNo = r.roomNo**

**7 WHERE dateFrom <= DATE'2020-01-21' AND**

**8 (dateTo IS NULL OR dateTo >= DATE'2020-01-21')**

**9 AND hotelName LIKE '%Grosvenor%'**

**10 GROUP BY b.hotelNo, hotelName, type**

**11 ORDER BY hotelName ASC,**

**12 type ASC;**

**HOTELNO HOTELNAME TYPE INCOME**

**---------- ---------------- -------- ----------**

**1 Grosvenor Hotel Double 560**

**1 Grosvenor Hotel Family 495**

**1 Grosvenor Hotel Single 206**

**8 Grosvenor Inn Double 430**

**8 Grosvenor Inn Single 123**

**SQL>**

**SQL> -- Q9. List the new hotels that are still under construction.**

**SQL> SELECT h.hotelNo, hotelName, hotelAddress, country**

**2 FROM Hotel h**

**3 LEFT JOIN Room r**

**4 ON h.hotelNo = r.hotelNo**

**5 WHERE r.hotelNo IS NULL**

**6 AND (roomNo IS NULL)**

**7 AND (type IS NULL)**

**8 AND (price IS NULL);**

**HOTELNO HOTELNAME HOTELADDRESS COUNTRY**

**---------- ---------------- ---------------------------------------- --------------------**

**10 Olympic Resort 223 Olympic Street, Whistler Canada**

**11 Romantic Hotel 223 Rue Cler, Paris France**

**9 Royale Paris 500 Avenue Montaigne, Paris France**

**SQL>**

**SQL> -- Q10. List total the number of Hotels, the number of hotels completed,**

**SQL> -- the number of hotels under construction, and the percentage of hotels under construction**

**SQL> SELECT COUNT(DISTINCT h.hotelName) AS ALL\_HOTELS, (COUNT(DISTINCT r.hotelNo)) AS COMPLETED,**

**2 (COUNT(DISTINCT h.hotelName) - COUNT(DISTINCT r.hotelNo)) AS UNDERCONSTR,**

**3 (((COUNT(DISTINCT h.hotelName) - COUNT(DISTINCT r.hotelNo)) / COUNT(DISTINCT h.hotelName)) \* 100) AS PERCENT\_UNDERCONSTR**

**4 FROM Hotel h**

**5 FULL JOIN Room r**

**6 ON h.hotelNo = r.hotelNo**

**7 WHERE r.hotelNo IS NOT NULL**

**8 OR (r.hotelNo IS NULL**

**9 AND (roomNo IS NULL)**

**10 AND (type IS NULL)**

**11 AND (price IS NULL));**

**ALL\_HOTELS COMPLETED UNDERCONSTR PERCENT\_UNDERCONSTR**

**---------- ---------- ----------- -------------------**

**11 8 3 27.2727273**

**SQL>**

**SQL> SPOOL OFF**