**Assignment 2 (20 Marks)**

Task: You are required to: 1) write Data Definition Language (DDL) to create tables [5 marks]; 2) write Data Manipulation Language (DML) to insert data into the tables [5 marks]; and 3) write Structured Query Language (SQL) statements to perform the tasks given [10 marks].

Tables given are: Hotel, Room, Booking and Guest.

|  |  |  |
| --- | --- | --- |
| **Hotel\_No** | **Name** | **City** |
| H111 | Empire Hotel | New York |
| H235 | Park Place | New York |
| H432 | Brownstone Hotel | Toronto |
| H498 | James Plaza | Toronto |
| H193 | Devon Hotel | Boston |
| H437 | Clairmont Hotel | Boston |

**HOTEL**

**ROOM**

|  |  |  |  |
| --- | --- | --- | --- |
| **Room\_No** | **Hotel\_No** | **Type** | **Price** |
| 313 | H111 | S | 145.00 |
| 412 | H111 | N | 145.00 |
| 1267 | H235 | N | 175.00 |
| 1289 | H235 | N | 195.00 |
| 876 | H432 | S | 124.00 |
| 898 | H432 | S | 124.00 |
| 345 | H498 | N | 160.00 |
| 467 | H498 | N | 180.00 |
| 1001 | H193 | S | 150.00 |
| 1201 | H193 | N | 175.00 |
| 257 | H437 | N | 140.00 |
| 223 | H437 | N | 155.00 |

**BOOKING**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hotel\_No** | **Guest\_No** | **Date\_From** | **Date\_To** | **Room\_No** |
| H111 | G256 | 10-AUG-99 | 15-AUG-99 | 412 |
| H111 | G367 | 18-AUG-99 | 21-AUG-99 | 412 |
| H235 | G879 | 05-SEP-99 | 12-SEP-99 | 1267 |
| H498 | G230 | 15-SEP-99 | 18-SEP-99 | 467 |
| H498 | G256 | 30-NOV-99 | 02-DEC-99 | 345 |
| H498 | G467 | 03-NOV-99 | 05-NOV-99 | 345 |
| H193 | G190 | 15-NOV-99 | 19-NOV-99 | 1001 |
| H193 | G367 | 12-SEP-99 | 14-SEP-99 | 1001 |
| H193 | G367 | 01-OCT-99 | 06-OCT-99 | 1201 |
| H437 | G190 | 04-OCT-99 | 06-OCT-99 | 223 |
| H437 | G879 | 14-SEP-99 | 17-SEP-99 | 223 |

**GUEST**

|  |  |  |
| --- | --- | --- |
| **Guest\_No** | **Name** | **City** |
| G256 | Adam Wayne | Pittsburgh |
| G367 | Tara Cummings | Baltimore |
| G879 | Vanessa Parry | Pittsburgh |
| G230 | Tom Hancock | Philadelphia |
| G467 | Robert Swift | Atlanta |
| G190 | Edward Cane | Baltimore |

Write SQL queries to perform the following tasks:

1. List full details of all hotel in Toronto.
2. List the names and addresses of all guests living in New York, alphabetically ordered by name.
3. List all rooms with a price below 150.00 per night, in ascending order of price.
4. What is the average price of a room?

1. What is the total price from all single rooms?
2. List the price and type of all rooms at Clairmont Hotel.
3. List all guests currently staying at the Devon Hotel.
4. List the number of rooms in each hotel.

1. List the number of rooms in each hotel in Toronto.
2. Update the price of all rooms by 5%.

1. SELECT \* FROM HOTEL

WHERE City = 'Toronto'

2. SELECT name, city

FROM Guest

WHERE Guest\_No

in

(SELECT Guest\_No

From Booking

Where Hotel\_no

in

(Select Hotel\_no

From Hotel

Where City = 'New York'))

3. SELECT \* FROM ROOM

WHERE price < 150

Order by price asc

4. SELECT AVG(price)

FROM ROOM

5. SELECT SUM(price), type

FROM ROOM

GROUP BY type

Having type = 'S'

6. SELECT price, type

FROM room

WHERE Hotel\_no

in(

Select Hotel\_no

FROM Hotel

WHERE name = 'Clairmont Hotel'

)

7. SELECT \* FROM GUEST

WHERE Guest\_no

in(

SELECT Guest\_no

From Booking

Where Hotel\_no

in(

SELECT Hotel\_no

From Hotel

Where name = 'Devon Hotel'

)

)

8. SELECT count(r.room\_no), h.name

FROM room r

join hotel h

on r.hotel\_no = h.hotel\_no

group by h.name

9. SELECT COUNT(r.room\_no), h.name, h.city

FROM room r

Join Hotel h ON r.hotel\_no = h.hotel\_no

group by h.name, h.city

HAVING h.city ='Toronto';

Or

SELECT COUNT(r.room\_no), h.name, h.city

FROM room r

Join Hotel h ON r.hotel\_no = h.hotel\_no

Where h.city = ‘Toronto’

group by h.name, h.city ;

10.UPDATE room

SET price = price \*105/100;