

Homework Assignment #5 – Chapter 7

For the following exercises, use the Hotel schema defined below:

Hotel (hotelNo, hotelName, city)

Room (roomNo, hotelNo, type, price)

Booking (hotelNo, guestNo, dateFrom, dateTo, roomNo)

Guest (guestNo, guestName, guestAddress)

where

Hotel contains hotel details and hotelNo is the primary key;

Room contains room details for each hotel and (roomNo, hotelNo) forms the primary key;

Booking contains details of bookings and (hotelNo, guestNo, dateFrom) forms the primary key;

Guest contains guest details and guestNo is the primary key.

1. Create the Hotel table using the integrity enhancement features of SQL.
2. Suppose the Booking table has already been created. Now Create a separate table with the same structure as the Booking table to hold archive records. Using the INSERT statement, copy the records from the Booking table to the archive table relating to bookings before January 1, 2023.

Delete all bookings before January 1, 2023 from the Booking table.
3. Create a view containing the hotel name and the names of the guests staying at the hotel.
4. Create a view containing the account for each guest at the Grosvenor Hotel.

5. Consider the following view defined on the Hotel schema:

```
CREATE VIEW HotelBookingCount (hotelNo, bookingCount)
AS SELECT h.hotelNo, COUNT(*)
FROM Hotel h, Room r, Booking b
WHERE h.hotelNo = r.hotelNo AND r.roomNo = b.roomNo
GROUP BY h.hotelNo;
```

For each of the following queries, state whether the query is valid,

- (a) **SELECT * FROM** HotelBookingCount;
- (b) **SELECT** hotelNo **FROM** HotelBookingCount **WHERE** hotelNo = 'H001';
- (c) **SELECT** MIN(bookingCount) **FROM** HotelBookingCount;
- (d) **SELECT** COUNT(*) **FROM** HotelBookingCount;
- (e) **SELECT** hotelNo **FROM** HotelBookingCount **WHERE** bookingCount > 1000;
- (f) **SELECT** hotelNo **FROM** HotelBookingCount **ORDER BY** bookingCount;