PRACTICE TEST – No.1

Module: SQL Server (Duration: 60 minutes)

Create a Database structure for Simple Hotel Booking Management with following requirements:

Preparation step:

- Open Microsoft SQL Server Management Studio, then click **New Query** on ToolsBar
- Save to local Disk with the name: **ClassName-YourName.sql**
- Take the test with **100% T-SQL syntax**, then take the .sql file above to submit.

Part A: Build Structure Database

1. Create a new database named: **HotelManagement**   **[1 mark]**

2. **Customers** table contains information about customers: FirstName, LastName, Mobile, Email
                                                                                             [1 mark]
3. **Rooms** table contains information about hotel rooms: RoomNumber, RoomType, Price, IsAvailable
                                                                                             [1 marks]
4. **Bookings** table contains information about bookings, linked to Customers and Rooms via foreign keys:
BookingId, CustomerId, RoomNumber, CheckInDate, CheckOutDate   **[2 marks]**

Part B: Insert information into tables

   1. **Customer Table:**   **[2 mark]**

CustomerID	FirstName	LastName	Mobile	Email
1	Tony	Hoo	0988777111	tonyhoo@example.com
2	Songkon	Nee	0988777112	songkonnee@example.com

   2. **Rooms Table:**   **[2 mark]**

RoomNumber	RoomType	Price	IsAvailable
1001	Single	1200	1
1002	Double	1600	1
1003	Single	1200	0

3. Bookings Table: **[2 mark]**

BookingId	CustomerId	RoomNumber	CheckInDate	CheckOutDate
1	1	1001	2024-01-01	2024-01-05
2	2	1002	2024-01-02	2024-01-10

Part C: Accessing Data

1. Create a **View** named `v_roomsAvailable` to statistics on the list of available room
   [1 mark]
2. Create a **View** named `v_roomsWithType` to statistics list the number of rooms by room type
   [2 mark]
3. Create a **Check Constraints** the value entered into the Rooms table with the **Price** column > 0 and **IsAvailable** column only accepting values of 0 or 1 **[1 mark]**
4. Create a **Stored Procedures** to Update the available status for booking with RoomNumber **1003**
   [2 mark]
5. Create a **Table-valued Functions** named **udtf_BookingByDate** to statistics list of reservation details including: room information, customer information **from** 2024-01-01 **to** 2024-01-10
   [3 mark]

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