

BASIC SQL PRACTICING

With a room booking management system at a karaoke bar. The karaoke bar's database is described as follows:



Notes:

- KHACH_HANG: customers data storage
- PHONG: Karaoke rooms data storage
- DICH_VU_DI_KEM: stores accompanying services data provided at the Karaoke bar
- DAT_PHONG: stores customer karaoke booking data
- CHI_TIET_SU_DUNG_DV: stores detailed data when customers use accompanying services.
- PK: Primary key of table

Write SQL statements to perform the following tasks (each task must be written using no more than one SQL statement):

I.

Question 1: List MaDatPhong, MaDV, and SoLuong of all services where the quantity is greater than 3 and less than 10. (1 point)

Question 2: Update the GiaPhong field in the PHONG table by increasing it by 10,000 VND compared to the current price, only for rooms where the maximum number of guests is greater than 10. (1 point)

Question 3: Delete all bookings (from the DAT_PHONG table) where the booking status (TrangThaiDat) is "Đã hủy". (1 point)

II.

Question 4: Display TenKH of customers whose names start with one of the letters “H”, “N”, or “M” and have a maximum length of 20 characters. (1 point)

Question 5: Display TenKH of all customers in the system. If any customer names are duplicated, display each name only once. Use two different methods to solve this requirement; each method will receive 0.5 points. (1 point)

Question 6: Display MaDV, TenDV, DonViTinh, and DonGia of accompanying services where DonViTinh is “lon” and DonGia is greater than 10,000 VND, or where DonViTinh is “Cai” and DonGia is less than 5,000 VND. (1 point)

Question 7: Display MaDatPhong, MaPhong, LoaiPhong, SoKhachToiDa, GiaPhong, MaKH, TenKH, SoDT, NgayDat, GioBatDau, GioKetThuc, MaDichVu, SoLuong, and DonGia of bookings where the booking year is "2016" or "2017" and the room price is greater than 50,000 VND per hour. (1 point)

III.

Question 8:

Display MaDatPhong, MaPhong, LoaiPhong, GiaPhong, TenKH, NgayDat, TongTienHat, TongTienSuDungDichVu, and TongTienThanhToan corresponding to each booking ID in the DAT_PHONG table. Bookings that did not use any accompanying service should still be included. (1 point)

- $\text{TongTienHat} = \text{GiaPhong} \times (\text{GioKetThuc} - \text{GioBatDau})$
- $\text{TongTienSuDungDichVu} = \text{SoLuong} \times \text{DonGia}$
- $\text{TongTienThanhToan} = \text{TongTienHat} + \text{sum}(\text{TongTienSuDungDichVu})$

Question 9: Display MaKH, TenKH, DiaChi, and SoDT of customers who have previously booked karaoke rooms with an address in "Hoa Xuan". (1 point)

Question 10: Display MaPhong, LoaiPhong, SoKhachToiDa, GiaPhong, and SoLanDat of rooms that have been booked more than twice by customers and have a booking status of "Đã đặt". (1 point)