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create database practical_4;
use practical_4;
create table Hotel (HotelNo int primary key, Name varchar(50), City varchar(50));
insert into Hotel values(1,"taj","mumbai");
insert into Hotel values(2,"foodland","pune");
insert into Hotel values(3,"jatra","nashik");
insert into Hotel values(4,"ganesh","pimpri");
insert into Hotel values(5,"Grosvenor","london");
insert into Hotel values(6,"Savory","london");
select * from Hotel;
create table Room (RoomNo int, HotelNo int, Type varchar(50), Price int ,primary
key(RoomNo,HotelNo),foreign key
(HotelNo) references Hotel(HotelNo));
insert into Room values(1,1,"single room",25);
insert into Room values(2,1,"double room",35);
insert into Room values(3,1,"family room",45);
insert into Room values(1,2,"single room",15);
insert into Room values(2,2,"double room",27);
insert into Room values(3,2,"family room",35);
insert into Room values(1,3,"single room",18);
insert into Room values(2,3,"double room",22);
insert into Room values(3,3,"family room",30);
insert into Room values(1,4,"single room",20);
insert into Room values(2,4,"double room",30);
insert into Room values(3,4,"family room",40);
insert into Room values(1,5,"single room",30);
insert into Room values(2,5,"double room",38);
insert into Room values(3,5,"family room",45);
insert into Room values(1,6,"single room",20);
insert into Room values(2,6,"double room",27);
insert into Room values(3,6,"family room",36);
select * from Room;
create table Guest(GuestNo int primary key,Guestname varchar(100),Guestaddress
varchar(255));
insert into Guest values(1,"vedant","sant tukaram nagar, pimpri");
insert into Guest values(2,"amey","wakad,pune");
insert into Guest values(3,"kedar","sion,mumbai");
insert into Guest values(4,"soham","andheri,mumbai");
insert into Guest values(5,"divyesh","kasarwadi,pune");
insert into Guest values(6,"divyesh","kasarwadi,pune");
insert into Guest values(7,"nishant","college road,nashik");
insert into Guest values(8,"nishant","ashok stambh,nashik");
insert into Guest values(9,"vishal","oxford street,london");
insert into Guest values(10,"aniket","park lane,london");
insert into Guest values(11,"paras","whitehall,london");
insert into Guest values(12,"akalank","old street,london");
select * from Guest;
create table Booking(HotelNo int, GuestNo int, Datefrom date, Dateto date, RoomNo
int, primary key(HotelNo, GuestNo, Datefrom), foreign key (HotelNo) references
Hotel(HotelNo),  foreign key (RoomNo,HotelNo) references Room(RoomNo,HotelNo),
foreign key (GuestNo) references Guest(GuestNo));
insert into Booking values(1,1,'2024-01-01','2024-01-04',1);
insert into Booking values(1,2,'2024-01-08','2024-01-12',2);
insert into Booking values(2,3,'2024-04-09','2024-04-15',1);
insert into Booking values(2,4,'2024-01-18','2024-01-22',2);
insert into Booking values(3,5,'2024-02-01','2024-02-07',1);
insert into Booking values(3,7,'2024-02-05','2024-02-10',3);
insert into Booking values(4,6,'2024-02-12','2024-02-15',1);
insert into Booking values(4,8,'2024-02-14','2024-02-15',3);
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insert into Booking values(5,9,'2024-04-10','2024-04-12',2);
insert into Booking values(5,10,'2024-04-13','2024-04-22',3);
insert into Booking values(6,11,'2024-04-17','2024-04-24',2);
insert into Booking values(6,12,'2024-03-22','2024-03-28',3);
select * from Booking;

1) select sum(Price) as TotalRevenuePerNight
from Room
where Type = "double room";

2) select r.RoomNo,r.Type,r.Price,g.Guestname
from Room r
join Hotel h
on r.HotelNo = h.HotelNo
left join Booking b
on r.RoomNo = b.RoomNo and r.HotelNo = b.HotelNo
left join Guest g
on b.GuestNo = g.GuestNo
where h.Name = "Grosvenor";

3) select HotelNo, avg(BookingCount) as AvgBookingInApril
from(
select HotelNo, count(*) as BookingCount
from Booking
where month(Datefrom) = 4
group by HotelNo, GuestNo
) as HotelBookings
group by HotelNo;

4) create Index idx_roomno on Room(RoomNo);
explain select * from Room where RoomNo = '3';

5) select * from Hotel;

6) select * from Hotel
where City = "london";

7) update Room
set Price = Price * 1.05;

8) select h.Name as HotelName, count(r.RoomNo) as NumberOfRooms
from Hotel h
join Room r
on h.HotelNo = r.HotelNo
where h.City = "london"
group by h.HotelNo, h.Name;

9) select * from Room
where Type in("double room","family room") and Price<40.00
order by Price asc;
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