--1 Write a query to get Profile ID, Full Name and Contact Number of the tenant who has stayed with us for the longest time period in the past.

select  profile\_id [Profile ID], concat(first\_name,' ',last\_name)[Full Name], phone [Contact Number] from Profiles   
where profile\_id in(   
select profile\_id from (  
select profile\_id,  
rank() over(order by DATEDIFF(MM,move\_in\_date,move\_out\_date) desc) longest\_tenancy from Tenancy\_histories  
) t  
WHERE longest\_tenancy = 1);  
   
  
--2 Write a query to get the Full name, email id, phone of tenants who are married and paying rent > 9000 using subqueries

select  concat(first\_name,' ',last\_name)[Full name], email [email id], phone from Profiles where marital\_status = 'Y' and profile\_id in(  
select profile\_id from Tenancy\_histories where rent > 9000);

--3 Write a query to display profile id, full name, phone, email id, city , house id, move\_in\_date , move\_out date, rent, total number of referrals made, latest employer and the occupational category of all the tenants living in Bangalore or Pune in the time period of jan 2015 to jan 2016 sorted by their rent in descending order

select p.profile\_id [profile id], concat(p.first\_name,' ',p.last\_name)[full name], p.phone, p.email [email id], p.city,  
t.house\_id [house id], t.move\_in\_date, t.move\_out\_date, t.rent, count(r.referral\_valid) [total referals], e.latest\_employer, e.Occupational\_category  
from Profiles p inner join Tenancy\_histories t on t.profile\_id=p.profile\_id  
inner join Referrals r on  r.referrer\_id=p.profile\_id  
inner join Employment\_details e on e.profile\_id = p.profile\_id  
where (p.city='Bangalore' or p.city = 'Pune') and (t.move\_in\_date>='2015-01-01' and t.move\_out\_date<='2016-01-01')  
group by p.profile\_id, p.first\_name, p.last\_name, p.phone, p.email, p.city,t.house\_id, t.move\_in\_date, t.move\_out\_date, t.rent, e.latest\_employer, e.Occupational\_category  
order by t.rent desc;

--4 Write a sql snippet to find the full\_name, email\_id, phone number and referral code of all the tenants who have referred more than once. Also find the total bonus amount they should receive given that the bonus gets calculated only for valid referrals.

select concat(p.first\_name,' ',p.last\_name)[full name], p.email, p.phone, p.referral\_code, r.bonus [total bonus] from Profiles p,  
(select referrer\_id, sum(iif(referral\_valid=1,referrer\_bonus\_amount,0)) [bonus] from Referrals  
 group by referrer\_id  
 having count(referral\_valid)>1) r  
 where r.referrer\_id=p.profile\_id;   
 

--5 Write a query to find the rent generated from each city and also the total of all cities.

select distinct p.city, sum(t.rent) over (partition by p.city)[Each City], sum(t.rent) over() [Total City]  
from Profiles p inner join Tenancy\_histories t on t.profile\_id=p.profile\_id;

--6 Create a view 'vw\_tenant' find profile\_id,rent,move\_in\_date,house\_type,beds\_vacant,description and city of tenants who shifted on/after 30th april 2015 and are living in houses having vacant beds and its address.

create view vw\_tenant as select p.profile\_id, t.rent, t.move\_in\_date, h.house\_type, h.Beds\_vacant, a.description, p.city, concat(a.name,', ',a.city,', ',a.pincode) [address] from Profiles p inner join Tenancy\_histories t on t.profile\_id=p.profile\_id  
inner join Houses h on h.house\_id = t.house\_id  
inner join Addresses a on a.house\_id = h.house\_id  
where t.move\_in\_date>= '2015-04-30' and h.house\_type='Independent' and h.Beds\_vacant>0;

select \* from vw\_tenant;

--7 Write a code to extend the valid\_till date for a month of tenants who have referred more than two times

update Referrals  
set valid\_till=DATEADD(MM,1,valid\_till)  
where referrer\_id in(  
select referrer\_id from Referrals where referral\_valid=1 group by referrer\_id having count(referral\_valid)>2);  
select \* from Referrals;

--8 Write a query to get Profile ID, Full Name , Contact Number of the tenants along with a new column 'Customer Segment' wherein if the tenant pays rent greater than 10000, tenant falls in Grade A segment, if rent is between 7500 to 10000, tenant falls in Grade B else in Grade C;

select p.profile\_id[Profile ID], CONCAT(p.first\_name,' ',p.last\_name)[Full Name],p.phone[Contact Number], IIF(t.rent>10000,'Grade A',IIF((t.rent<7500),'Grade C', 'Grade B')) [Customer Segment]  
from Profiles p inner join Tenancy\_histories t on t.profile\_id = p.profile\_id;

--9 Write a query to get Fullname, Contact, City and House Details of the tenants who have not referred even once

select p.profile\_id,concat(p.first\_name,' ',p.last\_name) [Fullname], p.phone[Contact], p.city[City],  
concat('house\_type | ',h.house\_type,'~ bhk\_details | ',h.bhk\_details,'~ bed\_count | ',h.bed\_count,'~ furnishing\_type | ',h.furnishing\_type) [House Details]  
from Profiles p left join Referrals r on r.referrer\_id = p.profile\_id  
inner join Tenancy\_histories t on t.profile\_id = p.profile\_id  
inner join Houses h on h.house\_id = t.house\_id  
where r.referrer\_id is null order by p.profile\_id;

--10 Write a query to get the house details of the house having highest occupancy

select top 1 with ties \* , (bed\_count-Beds\_vacant) [house occupency] from Houses order by (bed\_count-Beds\_vacant) desc;