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

Query

select PR.profile_id,(PR.first_name +' '+ PR.last_name) as
Name,PR.phone,DATEDIFF(DAY,TH.move_in_date,TH.move_out_date)as Number_of_Days_stayed
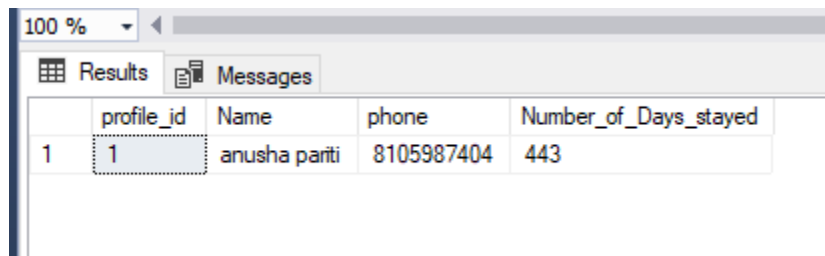
    from Profiles PR

    inner join

    Tenancy_histories TH

    on PR.profile_id=TH.profile_id

    where DATEDIFF(DAY,TH.move_in_date,TH.move_out_date) = (select MAX(
DATEDIFF(DAY,move_in_date,move_out_date))   from Tenancy_histories)

Output

	profile_id	Name	phone	Number_of_Days_stayed
1	1	anusha pariti	8105987404	443

2. Write a query to get the Full name, email id, phone of tenants who are married and paying rent > 9000 using subqueries

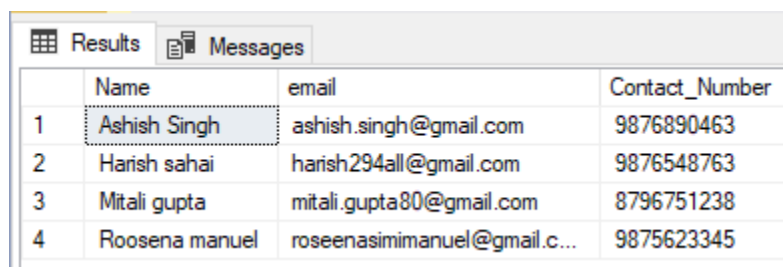**Query**

select (first_name+' '+last_name)as Name,email,phone as Contact_Number

    from Profiles

        where marital_status='Y' and profile_id in(select profile_id from Tenancy_histories
where rent>9000)

Output

	Name	email	Contact_Number
1	Ashish Singh	ashish.singh@gmail.com	9876890463
2	Harish sahai	harish294all@gmail.com	9876548763
3	Mitali gupta	mitali.gupta80@gmail.com	8796751238
4	Roosena manuel	roseenasimimanuel@gmail.c...	9875623345

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 jan2015 to jan 2016 sorted by their rent in descending order

Query

```
select distinct(PR.profile_id),(PR.first_name+' '+PR.last_name) as
Name,PR.phone,PR.email,PR.city,HS.house_id,TH.move_in_date,TH.move_out_date,TH.rent,ER.latest_
employer,ER.occupational_catagory,(select count(ref_id) as Number_of_Referrels
        from Referrals where referrer_id=PR.profile_id) as Number_of_referrals
from Profiles PR
inner join
Tenancy_histories TH
on
PR.profile_id=TH.profile_id
inner join

Employment_details ER
on PR.profile_id=ER.profile_id
inner join
Houses HS
on
TH.house_id=HS.house_id
inner join
Referrals RE
on
RE.referrer_id=PR.profile_id
where (PR.city='Bangalore' or PR.city='Pune') and (TH.move_in_date >= '2015-01-01' AND
TH.move_out_date <= '2016-01-01')    order by TH.rent desc
```

Output

	profile_id	Name	phone	email	city	house_id	move_in_date	move_out_date	rent	latest_employer	occupational_catagory	Number_of_referrals
1	5	Tanvi mann	9178352769	tanvi.mann1907@gmail.c...	Bangal...	3	2015-05-15	2015-12-27	90...	GE Healthcare	Working	3

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.

Query

```
select RE.referrer_id,sum(RE.referrer_bonus_amount) as Bonus,(PR.first_name+' '+PR.last_name)as
Name,PR.email,PR.phone
from Referrals RE
inner join Profiles PR
on
RE.referrer_id=PR.profile_id
```

where RE.referral_valid = 1
group by RE.referrer_id,PR.first_name,PR.last_name,PR.email,PR.phone
having count(RE.ref_id)>1

Output

	referrer_id	Bonus	Name	email	phone
1	5	2000	Tanvi mann	tanvi.mann1907@gmail.c...	9178352769
2	20	2500	Karan Sin...	karan.singh@gmail.com	8976665768

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

Query

select AD.city,SUM(TH.rent) as Total_Rent
　　　from Addresses AD
　　　inner join
　　　Tenancy_histories TH
　　　on AD.house_id = TH.house_id
　　　group by AD.city
　　　union all
　　　select COALESCE(null,'Total of all Cities = ') ,sum(rent) from Tenancy_histories

Output

	city	Total_Rent
1	bangalore	61200
2	Delhi	63700
3	Pune	54500
4	Total of all Cities =	179400

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.

Query

create view vw_tenant
as
select
PR.profile_id,TH.rent,AD.city,TH.move_in_date,HS.house_type,HS.beds_vacant,HS.furnishing_type,PR.phone,AD.description,AD.name as House_Name
from Profiles PR
inner join
Tenancy_histories TH
on
PR.profile_id=TH.profile_id
inner join

Houses HS
on
TH.house_id=HS.house_id
inner join Addresses AD
on HS.house_id=AD.house_id
where
TH.move_in_date>='2015-04-30' and HS.beds_vacant>0

Output

	profile_id	rent	city	move_in_date	house_type	beds_vacant	furnishing_type	phone	description	House_Name
1	2	11000	bangal...	2015-06-05	Apartment	1	unfurnished	9876890463	No.44,Ground floor,20th cross,Sector 2 HSR Layout,B...	stag saptgiri
2	5	9000	bangal...	2015-05-15	Apartment	4	fully-furnished	9178352769	No.44,First floor,20th cross,Sector 2 HSR Layout.	sri sai enclave
3	6	10200	Delhi	2015-12-25	Apartment	1	fully-furnished	9876548763	Flat No-202, Apoorva Apartment No-296 Vyalikaval H...	Apoorva society
4	7	6500	bangal...	2015-11-20	Apartment	1	semifurnished	8105987404	# 595/1, 1st Floor,1st A main, Domlur Layout	Juniper appartments
5	10	7500	Delhi	2015-06-20	Independent	1	fully-furnished	9873123456	302,#473 VAK Residency, B-Block, AECS Layout Kun...	VaK Residency
6	11	8000	Pune	2015-08-29	Independent	1	fully-furnished	7896785432	49, House 1 lathangi 2nd main vinayaka housing layo...	Vinayaka residency

Query executed successfully.   (local) (14.0 RTM) JaisoN-PC\JaisoN (58) Tenant 00:00:00 8 rows

7. Write a code to extend the valid_till date for a month of tenants who have referred more than two times

Query

update Referrals
set
valid_till= DATEADD(MM,1,valid_till)   where referrer_id in(select referrer_id from Referrals group by referrer_id having count(ref_id)>2)

Output

```
100 %   ▾ ◂

    Messages

    (3 rows affected)

    Completion time: 2020-01-11T16:15:12.3753568+05:30
```

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

Query

select PR.profile_id,(PR.first_name+' '+PR.last_name) as Name, PR.phone as Contact_number,
        IIF((TH.rent>10000), 'Grade A', IIF(TH.rent <= 10000 and TH.rent >= 7500, 'Grade B','Grade
C'))as Customer_Segment

Output

	profile_id	Name	Contact_number	Customer_Segment
1	1	anusha pariti	8105987404	Grade B
2	2	Ashish Singh	9876890463	Grade A
3	3	Bhaskar maheshw...	9801834992	Grade A
4	4	Garima yadav	81059237004	Grade B
5	5	Tanvi mann	9178352769	Grade B
6	6	Harish sahai	9876548763	Grade A
7	7	Kamal gera	8105987404	Grade C
8	8	Tushar kapoor	8926537154	Grade C
9	9	Shivshankar das	9801834992	Grade B
10	10	Aditi jain	9873123456	Grade B
11	11	Deepa sudhakar	7896785432	Grade B

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

Query

select PR.profile_id,(PR.first_name+' '+PR.last_name)as Name,PR.phone as
Contact_number,PR.city,HS.*,AD.description,AD.name,AD.pincode
from Profiles PR
inner join
Tenancy_histories TH
on PR.profile_id=TH.profile_id
inner join
Houses HS
on TH.house_id = HS.house_id
inner join
Addresses AD
on HS.house_id=AD.house_id
where PR.profile_id not in(select referrer_id from Referrals)

OutPut

	profile_id	Name	Contact_number	city	house_id	house_type	bhk_details	bed_count	furnishing_type	beds_vacant	description	name	pincode
1	1	anusha pariti	8105987404	Bangal...	5	Independent	4 BHK	4	fully-furnished	2	#11,Annaiya Reddy Rd, Narayana Reddy Layout,Pha...	Fella homes	560100
2	4	Garima yadav	81059237004	Bangal...	1	Apartment	3 BHK	5	unfurnished	2	Sterling Brook Side, Opp. Kundalahalli Colony, ITPL M...	Zaanz appartment	560037
3	7	Kamal gera	8105987404	Bangal...	6	Apartment	3 BHK	3	semifurnished	1	# 595/1, 1st Floor,1st A main, Domlur Layout	Juniper appartments	560038
4	8	Tushar kapoor	8926537154	Pune	7	Apartment	3 BHK	3	semifurnished	0	Flat No: T1 Deccan Field Appartment Kunadanhalli ma...	UDB Building	560037
5	11	Deepa sudhakar	7896785432	Pune	19	Independent	3 BHK	3	fully-furnished	1	49, House 1 lathangi 2nd main vinayaka housing layo...	Vinayaka residency	560094
6	14	Manisha Yadav	9867845182	Delhi	18	Independent	2 BHK	2	fully-furnished	1	D1-1201, Uniworld Garden 2	uniworld	543678
7	15	Shivani godha	9878673428	Delhi	13	Independent	2 BHK	4	unfurnished	2	B105, 1st floor, B block, Barvika Residency	Barvika Residency	56100...
8	16	Rajan pandey	8987647811	delhi	17	Independent	3 BHK	3	fully-furnished	1	Flat No-211 Sri Krishna sai enclave, Hoodi village, besi...	Sri Krishna Society	560048
9	17	Roosena manuel	9875623345	Delhi	14	Apartment	3 BHK	3	fully-furnished	0	#157, 4th Cross, 1st Main Road, Lower Palace Orchard	Nestaway building	546783
10	18	Prabhjot gill	9800786688	Delhi	16	Apartment	3 BHK	3	fully-furnished	0	No. 502, Indira Meadows, Arunodaya Colony	Indira society	302017
11	19	Ankita sharma	9988789656	Delhi	20	Independent	1 BHK	2	unfurnished	2	Majeera Diamond Towers,malad-west	Sun city appartme...	56002...

Query executed successfully.   (local) (14.0 RTM) | JaisoN-PC\JaisoN (63) | Tenant | 00:00:00 | 11 rows

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

Query

select top (1) with ties AD.house_id, AD.name , HS.house_type, HS.bhk_details, HS.furnishing_type,
(HS.bed_count - HS.Beds_vacant) AS Total_Occupancy
from Addresses AD
    INNER JOIN Houses HS
       ON
    AD.house_id= HS.house_id
ORDER BY Total_Occupancy DESC

Output

	house_id	name	house_type	bhk_details	furnishing_type	Total_Occupancy
1	1	Zaanz appartment	Apartment	3 BHK	unfurnished	3
2	7	UDB Building	Apartment	3 BHK	semifurnished	3
3	8	Apoorva society	Apartment	2 BHK	fully-furnished	3
4	14	Nestaway building	Apartment	3 BHK	fully-furnished	3
5	16	Indira society	Apartment	3 BHK	fully-furnished	3