**-- Solution to question 1**

SELECT TOP 10 th.profile\_id,

CONCAT(first\_name , '', last\_name ) AS full\_name , p.phone

FROM Tenancy\_histories th

JOIN Profiles p ON th.profile\_id=p.profile\_id

WHERE th.move\_out\_date IS NOT NULL

ORDER BY DATEDIFF(day ,th.move\_in\_date, th.move\_out\_date)DESC;

-- **Solution to question 2**

SELECT CONCAT(first\_name , '', last\_name ) AS full\_name ,p.email\_id , p.phone

FROM Profiles p

JOIN Tenancy\_histories th ON p.profile\_id=th.profile\_id

WHERE p.marital\_status='Y' AND th.rent>9000;

-- **Solution to question 3**

SELECT p.profile\_id, CONCAT(P.first\_name,'', p.last\_name) As

Full\_name ,p.phone, p.email\_id, p.city,th.house\_id, th.move\_in\_date, th.move\_out\_date , th.rent,

(SELECT COUNT (ref\_id)FROM Referrals WHERE Ref\_ID=p.profile\_id)AS total\_referrals,

ed.latest\_employer, ed.occupational\_category

FROM Profiles p

JOIN Tenancy\_histories th ON p.profile\_id = th.profile\_id

JOIN Employment\_details ed ON p.profile\_id = ed.profile\_id

WHERE (p.city='Banglore' OR p.city= 'Pune') AND th.move\_in\_date BETWEEN '2015-01-01' AND '2016-01-31'

ORDER BY th.rent DESC;

-- **Solution to question 4**

SELECT

CONCAT(p.first\_name, '', p.last\_name) AS Full\_name,

p.Email\_id,

p.phone ,

p.referral\_code ,

SUM(r.referrer\_bonus\_amount) AS Total\_Bonus\_Amount

FROM profiles p

JOIN Referrals r ON p.profile\_id=r.referral\_valid

WHERE r.referral\_valid=1

GROUP BY p.profile\_id, p.first\_name, p.last\_name, p.email\_id, p.phone, p.referral\_code

HAVING COUNT (r.ref\_id)>1;

--- **Solution to question 5**

SELECT city , sum (rent) AS total\_rent

FROM Tenancy\_histories th

JOIN Profiles p ON th.profile\_id = p.profile\_id

GROUP BY city WITH ROLLUP;

---- **Solution to question 6**

CREATE VIEW vw\_tenant AS

SELECT p.profile\_id , th.rent , th.move\_in\_date , h.house\_type, h.Beds\_vacant , a.description, a.city

From Tenancy\_histories th

JOIN Profiles p ON th.profile\_id=p.profile\_id

JOIN Houses h ON th.house\_id=h.house\_id

JOIN Addresses a ON h.house\_id=a.house\_id

WHERE th.move\_in\_date>= '2015-04-30' AND h.beds\_vacant >0 ;

SELECT \* FROM vw\_tenant

--- **Solution to question 7**

UPDATE Referrals

SET valid\_till= DATEADD(month, 1,valid\_till)

WHERE ref\_ID IN(

SELECT ref\_ID

FROM Referrals

GROUP BY ref\_ID

HAVING COUNT(ref\_id)>1

);

SELECT \* FROM Referrals

-- **Solution to question 8**

Select p.profile\_id,concat (p.first\_name, '',p.last\_name)As full\_name, p.phone,

CASE

When th.rent> 10000 Then ' Grade A'

When th.rent BETWEEN 7500 AND 10000 Then ' Grade B'

Else 'Grade C'

END AS customer\_segment

FROM Tenancy\_histories th

JOIN profiles p ON th.profile\_id=p.profile\_id;

-- **Solution to question 9**

SELECT CONCAT (p.first\_name, '',p.last\_name) AS full\_name, p.phone, a.city , h.\*

FROM Profiles p

JOIN Tenancy\_histories th ON p.profile\_id= th.profile\_id

JOIN Houses h ON h.house\_id= h.house\_id

JOIN Addresses a ON h.house\_id=a.house\_id

WHERE p.profile\_id NOT IN (

SELECT Ref\_id

FROM Referrals

);

--**Solution to question 10**

SELECT \*

FROM Houses

WHERE (bed\_count - beds\_vacant) =

(SELECT MAX(bed\_count - beds\_vacant)

FROM Houses

);