CREATE TABLE #Tenancy\_Histories (move\_in\_date DATETIME,

move\_out\_date DATETIME,

rent INT,

bed\_type VARCHAR (200),

move\_out\_reason VARCHAR(200),

house\_id INT,

profile\_id INT ,

ID INT

)

GO

INSERT INTO #Tenancy\_Histories VALUES ( '02-12-2015','04-30-2016',7500,'bed','MOVE\_OUT',5,1,1 )

INSERT INTO #Tenancy\_Histories VALUES ( '06-05-2015',NULL,11000,'room',NULL,2,2,2 )

INSERT INTO #Tenancy\_Histories VALUES ( '10-28-2015','11-28-2016',12000,'room','RENT\_CHANGE',4,3,3 )

INSERT INTO #Tenancy\_Histories VALUES ( '04-26-2015',NULL,8000,'bed',NULL,1,4,4 )

INSERT INTO #Tenancy\_Histories VALUES ( '05-15-2015','12-27-2015',9000,'bed','MOVE\_OUT',3,5,5 )

INSERT INTO #Tenancy\_Histories VALUES ( '12-25-2015',NULL,10200,'room',NULL,8,6,6 )

INSERT INTO #Tenancy\_Histories VALUES ( '11-20-2015',NULL,6500,'bed',NULL,6,7,7 )

INSERT INTO #Tenancy\_Histories VALUES ( '11-10-2015','12-31-2016',7200,'bed','MOVE\_OUT',7,8,8 )

INSERT INTO #Tenancy\_Histories VALUES ( '10-15-2015',NULL,7500,'bed',NULL,9,9,9 )

INSERT INTO #Tenancy\_Histories VALUES ( '06-20-2015',NULL,7500,'bed',NULL,10,10,10 )

INSERT INTO #Tenancy\_Histories VALUES ( '08-29-2015','06-14-2016',8000,'bed','INTERNAL\_TRANSFER',19,11,11 )

INSERT INTO #Tenancy\_Histories VALUES ( '02-24-2015',NULL,11000,'room',NULL,15,12,12 )

INSERT INTO #Tenancy\_Histories VALUES ( '02-25-2015',NULL,12000,'room',NULL,12,13,13 )

INSERT INTO #Tenancy\_Histories VALUES ( '01-07-2016','12-30-2016',13500,'room','MOVE\_OUT',18,14,14 )

INSERT INTO #Tenancy\_Histories VALUES ( '04-07-2015',NULL,6500,'bed',NULL,13,15,15 )

INSERT INTO #Tenancy\_Histories VALUES ( '04-23-2015',NULL,6500,'bed',NULL,17,16,16 )

INSERT INTO #Tenancy\_Histories VALUES ( '02-10-2015',NULL,10500,'room',NULL,14,17,17 )

INSERT INTO #Tenancy\_Histories VALUES ( '10-16-2015','09-04-2016',8000,'bed','MOVE\_OUT',16,18,18 )

INSERT INTO #Tenancy\_Histories VALUES ( '09-26-2015',NULL,7500,'bed',NULL,20,19,19 )

INSERT INTO #Tenancy\_Histories VALUES ( '09-30-2015',NULL,9500,'bed',NULL,11,20,20 )

Go

CREATE TABLE #address ([NAME] VARCHAR (200), description VARCHAR(250), city VARCHAR(100), pincode INT, house\_id INT, ID INT)

INSERT INTO #Address VALUES ( 'Zaanz appartment','Sterling BrookSide, Opp. Kundalahalli Colony, ITPL Main Rd','bangalore',560037,1,2 )

INSERT INTO #Address VALUES ( 'stag saptgiri','No.44,Ground floor,20th cross,Sector 2 HSR Layout,Bangalore.','bangalore',560102,2,3 )

INSERT INTO #Address VALUES ( 'sri sai enclave','No.44,First floor,20th cross,Sector 2 HSR Layout.','bangalore',560102,3,4 )

INSERT INTO #Address VALUES ( 'orchids building','D-208, Balaji Pristine Whitefield Main Road','bangalore',560066,4,5 )

INSERT INTO #Address VALUES ( 'Fella homes','#11,Annaiya Reddy Rd, Narayana Reddy Layout,Phase 2, Electronic City','bangalore',560100,5,6 )

INSERT INTO #Address VALUES ( 'Juniper appartments','# 595/1, 1st Floor,1st A main, Domlur Layout','bangalore',560038,6,7 )

INSERT INTO #Address VALUES ( 'UDB Building','Flat No: T1 Deccan Field Appartment Kunadanhalli main road','bangalore',560037,7,8 )

INSERT INTO #Address VALUES ( 'Apoorva society','Flat No-202, Apoorva Apartment No-296 Vyalikaval House Building Cooperative Society Ltd Nagavara','Delhi',561202,8,9 )

INSERT INTO #Address VALUES ( 'Stag saptgiri','Flat No-202, stag saptgiri No-26 phase2 Cooperative Society','Delhi',560045,9,10 )

INSERT INTO #Address VALUES ( 'VaK Residency','302,#473 VAK Residency, B-Block, AECS Layout Kundalahalli,','Delhi',456738,10,11 )

INSERT INTO #Address VALUES ( 'Sunshine hills','Flat no 3, water ville apartment R.galli','Delhi',100234,11,12 )

INSERT INTO #Address VALUES ( 'Sri Sai appartment','2nd House, No-80/289, Sri Hari Darshan Nilaya, Ground Floor, Bellandur','Delhi',560107,12,13 )

INSERT INTO #Address VALUES ( 'Barvika Residency','B105, 1st floor, B block, Barvika Residency','Delhi',5610023,13,14 )

INSERT INTO #Address VALUES ( 'Nestaway building','#157, 4th Cross, 1st Main Road, Lower Palace Orchard','Delhi',546783,14,15 )

INSERT INTO #Address VALUES ( 'Windsor Plaza','#301, Windsor Plaza,ITPL','Pune',560025,15,16 )

INSERT INTO #Address VALUES ( 'Indira society','No. 502, Indira Meadows, Arunodaya Colony','Pune',302017,16,17 )

INSERT INTO #Address VALUES ( 'Sri Krishna Society','Flat No-211 Sri Krishna sai enclave, Hoodi village, beside Vivekananda Ashram, Mahadevapura post','Pune',560048,17,18 )

INSERT INTO #Address VALUES ( 'uniworld','D1-1201, Uniworld Garden 2','Pune',543678,18,19 )

INSERT INTO #Address VALUES ( 'Vinayaka residency','49, House 1 lathangi 2nd main vinayaka housing layout, RMV 2nd stage bhoopasandra','Pune',560094,19,20 )

INSERT INTO #Address VALUES ( 'Sun city appartments','Majeera Diamond Towers,malad-west','Pune',5600263,20,21 )

GO

CREATE TABLE #Employment (latest\_employer VARCHAR(100), official\_mail\_id VARCHAR(100), years\_experience INT, occupational\_category VARCHAR(100), profile\_id INT, ID INT)

INSERT INTO #Employment VALUES ( 'Sabre','mehdi.hasan@sabre.com',1,'Working',1,1 )

INSERT INTO #Employment VALUES ( 'hindustan unilever','rags.ramgas@gmail.com',2,'Working',2,2 )

INSERT INTO #Employment VALUES ( 'Technicolor','jigna.thacker@technicolor.com',1,'Working',3,3 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',4,4 )

INSERT INTO #Employment VALUES ( 'GE Healthcare','ruchita.save@ge.com',3,'Working',5,5 )

INSERT INTO #Employment VALUES ( 'Aditya birla','shubhi.bajpai@adityabirla.com',3,'Working',6,6 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',7,7 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',8,8 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',9,9 )

INSERT INTO #Employment VALUES ( 'huawei Technologies','gunjan19wadhwa@gmail.com',4,'Working',10,10 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',11,11 )

INSERT INTO #Employment VALUES ( 'Centurylink India','PreetInder.Sodhi@centurylink.com',2,'Working',12,12 )

INSERT INTO #Employment VALUES ( 'SAP Labs India','udit.singh@sap.com',2,'Working',13,13 )

INSERT INTO #Employment VALUES ( 'NestAway','deepak@nestaway.com',1,'Working',14,14 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',15,15 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',16,16 )

INSERT INTO #Employment VALUES ( 'Microsoft','t-akmeh@microsoft.com',2,'Working',17,17 )

INSERT INTO #Employment VALUES ( 'Cognizant','bhavranjan.pandey@cognizant.com',2,'Working',18,18 )

INSERT INTO #Employment VALUES ( NULL,NULL,NULL,'Student',19,19 )

INSERT INTO #Employment VALUES ( 'Tiny Mogul Games','sanchit@hike.in',3,'Working',20,20 )

GO

CREATE TABLE #Houses (house\_type VARCHAR(100), bhk\_type VARCHAR(100), bed\_count INT, furnishing\_type VARCHAR(100), beds\_vacant INT, house\_id INT)

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',5,'unfurnished',2,1 )

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',3,'unfurnished',1,2 )

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',6,'fully-furnished',4,3 )

INSERT INTO #Houses VALUES ( 'Apartment','2 BHK',2,'fully-furnished',0,4 )

INSERT INTO #Houses VALUES ( 'Independent','4 BHK',4,'fully-furnished',2,5 )

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',3,'semifurnished',1,6 )

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',3,'semifurnished',0,7 )

INSERT INTO #Houses VALUES ( 'Apartment','2 BHK',4,'fully-furnished',1,8 )

INSERT INTO #Houses VALUES ( 'Independent','1 BHK',2,'unfurnished',0,9 )

INSERT INTO #Houses VALUES ( 'Independent','3 BHK',3,'fully-furnished',1,10 )

INSERT INTO #Houses VALUES ( 'Apartment','1 BHK',1,'unfurnished',0,11 )

INSERT INTO #Houses VALUES ( 'Independent','1 BHK',2,'unfurnished',1,12 )

INSERT INTO #Houses VALUES ( 'Independent','2 BHK',4,'unfurnished',2,13 )

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',3,'fully-furnished',0,14 )

INSERT INTO #Houses VALUES ( 'Independent','1 BHK',2,'unfurnished',1,15 )

INSERT INTO #Houses VALUES ( 'Apartment','3 BHK',3,'fully-furnished',0,16 )

INSERT INTO #Houses VALUES ( 'Independent','3 BHK',3,'fully-furnished',1,17 )

INSERT INTO #Houses VALUES ( 'Independent','2 BHK',2,'fully-furnished',1,18 )

INSERT INTO #Houses VALUES ( 'Independent','3 BHK',3,'fully-furnished',1,19 )

INSERT INTO #Houses VALUES ( 'Independent','1 BHK',2,'unfurnished',2,20 )

GO

CREATE TABLE #Profile (first\_name VARCHAR(100), last\_name VARCHAR(100), email\_id VARCHAR(100), phone BIGINT, city VARCHAR(50), created\_at datetime, gender VARCHAR(10), referral\_code VARCHAR(50), marital\_status VARCHAR(10), profile\_id INT

)INSERT INTO #Profile VALUES ( 'anusha','pariti','anusha.pariti@gmail.com',8105987404,'Bangalore','04-16-2015','F','7L5FZW','Y',1 )

INSERT INTO #Profile VALUES ( 'Ashish','Singh','ashish.singh@gmail.com',9876890463,'Bangalore','05-23-2015','M','KF34MF','Y',2 )

INSERT INTO #Profile VALUES ( 'Bhaskar','maheshwari','bhaskar.mah@gmail.com',9801834992,'Bangalore','05-01-2015','M','5TYSHGF','N',3 )

INSERT INTO #Profile VALUES ( 'Garima','yadav','garima0191@gmail.com',81059237004,'Bangalore','10-20-2015','F','5G5FQW','N',4 )

INSERT INTO #Profile VALUES ( 'Tanvi','mann','tanvi.mann1907@gmail.com',9178352769,'Bangalore','02-16-2015','F','JSH48B','N',5 )

INSERT INTO #Profile VALUES ( 'Harish','sahai','harish294all@gmail.com',9876548763,'Bangalore','11-11-2015','M','MKGI2W','Y',6 )

INSERT INTO #Profile VALUES ( 'Kamal','gera','kamal0094@gmail.com',8105987404,'Bangalore','10-31-2015','M','MK34ER','N',7 )

INSERT INTO #Profile VALUES ( 'Tushar','kapoor','tushar.kapoor21@gmail.com',8926537154,'Pune','12-12-2015','M','KLF12E','N',8 )

INSERT INTO #Profile VALUES ( 'Shivshankar','das','sankar.shiva730@gmail.com',9801834992,'Pune','10-06-2015','M','3RE5TY','Y',9 )

INSERT INTO #Profile VALUES ( 'Aditi','jain','aditi.jain@sproxil.com',9873123456,'Pune','06-11-2015','F','5TPL4E','N',10 )

INSERT INTO #Profile VALUES ( 'Deepa','sudhakar','sudhakar.deepa@gmail.com',7896785432,'Pune','09-15-2015','F','4RTYUIO','Y',11 )

INSERT INTO #Profile VALUES ( 'Umang','parejiya','uparejiya@gmail.com',7896543674,'Pune','07-18-2015','M','6TY4WE','N',12 )

INSERT INTO #Profile VALUES ( 'Mitali','gupta','mitali.gupta80@gmail.com',8796751238,'Pune','03-24-2015','F','5RTYU3','Y',13 )

INSERT INTO #Profile VALUES ( 'Manisha','Yadav','maniyadav88@gmail.com',9867845182,'Delhi','01-27-2015','F','LKGHY6','N',14 )

INSERT INTO #Profile VALUES ( 'Shivani','godha','shivani\_go@nid.edu',9878673428,'Delhi','02-19-2015','F','8NM4R','Y',15 )

INSERT INTO #Profile VALUES ( 'Rajan','pandey','raajanpandey@gmail.com',8987647811,'delhi','09-04-2015','M','5TYUIO','N',16 )

INSERT INTO #Profile VALUES ( 'Roosena','manuel','roseenasimimanuel@gmail.com',9875623345,'Delhi','04-13-2015','F','6TYHU','Y',17 )

INSERT INTO #Profile VALUES ( 'Prabhjot','gill','prabhjotgill09@gmail.com',9800786688,'Delhi','12-30-2015','M','GHJK34','N',18 )

INSERT INTO #Profile VALUES ( 'Ankita','sharma','ankita.anku96@gmail.com',9988789656,'Delhi','08-17-2015','F','TH67TY','Y',19 )

INSERT INTO #Profile VALUES ( 'Karan','Singh','karan.singh@gmail.com',8976665768,'Delhi','09-15-2015','M','LRF34F','N',20 )

Go

CREATE TABLE #referral (referrer\_bonus\_amount INT, referral\_valid INT, valid\_from datetime, valid\_till datetime, profile\_id INT, ID INT)

INSERT INTO #referral VALUES ( 2500,1,'07-05-2015','09-05-2015',2,1 )

INSERT INTO #referral VALUES ( 2500,1,'07-05-2015','09-05-2015',3,2 )

INSERT INTO #referral VALUES ( 1000,0,'12-13-2015','02-13-2016',5,3 )

INSERT INTO #referral VALUES ( 2500,0,'04-25-2016','06-24-2016',6,4 )

INSERT INTO #referral VALUES ( 1000,1,'07-01-2015','09-01-2015',10,5 )

INSERT INTO #referral VALUES ( 2500,1,'05-12-2015','07-12-2015',12,6 )

INSERT INTO #referral VALUES ( 2500,0,'08-05-2015','10-05-2015',13,7 )

INSERT INTO #referral VALUES ( 1000,1,'02-05-2016','04-05-2016',20,8 )

INSERT INTO #referral VALUES ( 2500,0,'08-12-2015','09-12-2015',2,9 )

INSERT INTO #referral VALUES ( 1000,1,'02-18-2016','04-18-2016',5,10 )

INSERT INTO #referral VALUES ( 1500,1,'06-19-2016','08-19-2016',20,12 )

INSERT INTO #referral VALUES ( 2500,0,'11-15-2015','01-15-2016',9,13 )

INSERT INTO #referral VALUES ( 1000,1,'02-01-2016','04-01-2016',13,14 )

INSERT INTO #referral VALUES ( 1000,1,'04-25-2016','06-24-2016',5,15 )

Go

**--- Query for Question1**

SELECT profile\_id, first\_name+' '+ last\_name AS Full\_Name, phone AS Contact\_Number

FROM #Profile WHERE profile\_id = (SELECT TOP 1 WITH ties profile\_id FROM #Tenancy\_histories

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

**----Query for Question 2**

SELECT first\_name, last\_name, email\_id, phone,\* FROM #Profile

WHERE marital\_status = 'Y' AND profile\_id IN (SELECT profile\_id FROM #Tenancy\_Histories WHERE rent> 9000)

**----Query for Question 3**

SELECT pf.profile\_id, first\_name+' '+ last\_name AS Full\_Name, email\_id AS email\_id, city,

house\_id, move\_in\_date, move\_out\_date, rent, latest\_employer, Occupational\_category

FROM #Profile pf

INNER JOIN #Tenancy\_Histories ON pf.profile\_id = #Tenancy\_Histories.profile\_id

INNER JOIN #Employment ON pf.profile\_id=#Employment.profile\_id

WHERE city = 'Bangalore' OR city = 'Pune'

AND move\_in\_date > '2014-12-31' AND move\_in\_date < '2016-02-01'

ORDER BY rent DESC

**----Query for Question 4**

SELECT pf.profile\_id,first\_name+' '+last\_name AS full\_name, email\_id AS email\_id, phone AS phone\_number, referral\_code,

SUM(referrer\_bonus\_amount) Bonus

FROM #Profile pf

JOIN #referral rf ON pf.profile\_id = rf.profile\_id

WHERE referral\_valid = 1

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

HAVING count(rf.profile\_id)>1

**----Query for Question 5**

SELECT city, sum(t.rent) AS rent

FROM #Profile pf join #Tenancy\_Histories t ON pf.profile\_id = t.profile\_id

GROUP BY city

**----Query for Question 6**

SELECT profile\_id, rent, move\_in\_date, house\_type, beds\_vacant, DESCRIPTION, city

FROM #Tenancy\_histories

INNER JOIN #Houses ON #Tenancy\_histories.house\_id= #Houses.house\_id

INNER JOIN #address ON #Houses.house\_id=#Address.house\_id

WHERE move\_in\_date >= '2015-04-30'

AND Beds\_vacant>0

**----Query for Question 7**

SELECT DATEADD(MM, 1, valid\_till)

FROM #referral

WHERE profile\_id IN

(SELECT profile\_id FROM #referral GROUP BY profile\_id HAVING count(profile\_id)>2);

**---- Query for Question 8**

SELECT pf.profile\_id, first\_name, last\_name, phone, tn.rent,

CASE WHEN tn.rent > 10000 THEN 'A'

WHEN tn.rent between 7500 AND 10000 THEN 'B'

ELSE 'C' END Customer\_Segment

FROM #Profile pf

JOIN #Tenancy\_Histories tn ON pf.profile\_id = tn.profile\_ID

**----Query for Question 9**

SELECT first\_name+' '+ last\_name AS Full\_Name, phone AS contact, city, hs.\*

FROM #Profile pf

INNER JOIN

#Tenancy\_histories th ON pf.profile\_id = th.profile\_id

INNER JOIN

#Houses hs ON th.house\_id = hs.house\_id

WHERE pf.profile\_id NOT IN (SELECT [profile\_id] FROM #referral);

**----Query for Question 10**

SELECT \* FROM #Houses

WHERE bed\_count-beds\_vacant = (SELECT MAX(bed\_count-Beds\_vacant) FROM #Houses);