TENANCY _ HISTORIES PROJECT-

EMPLOYEMENT SYSTEM
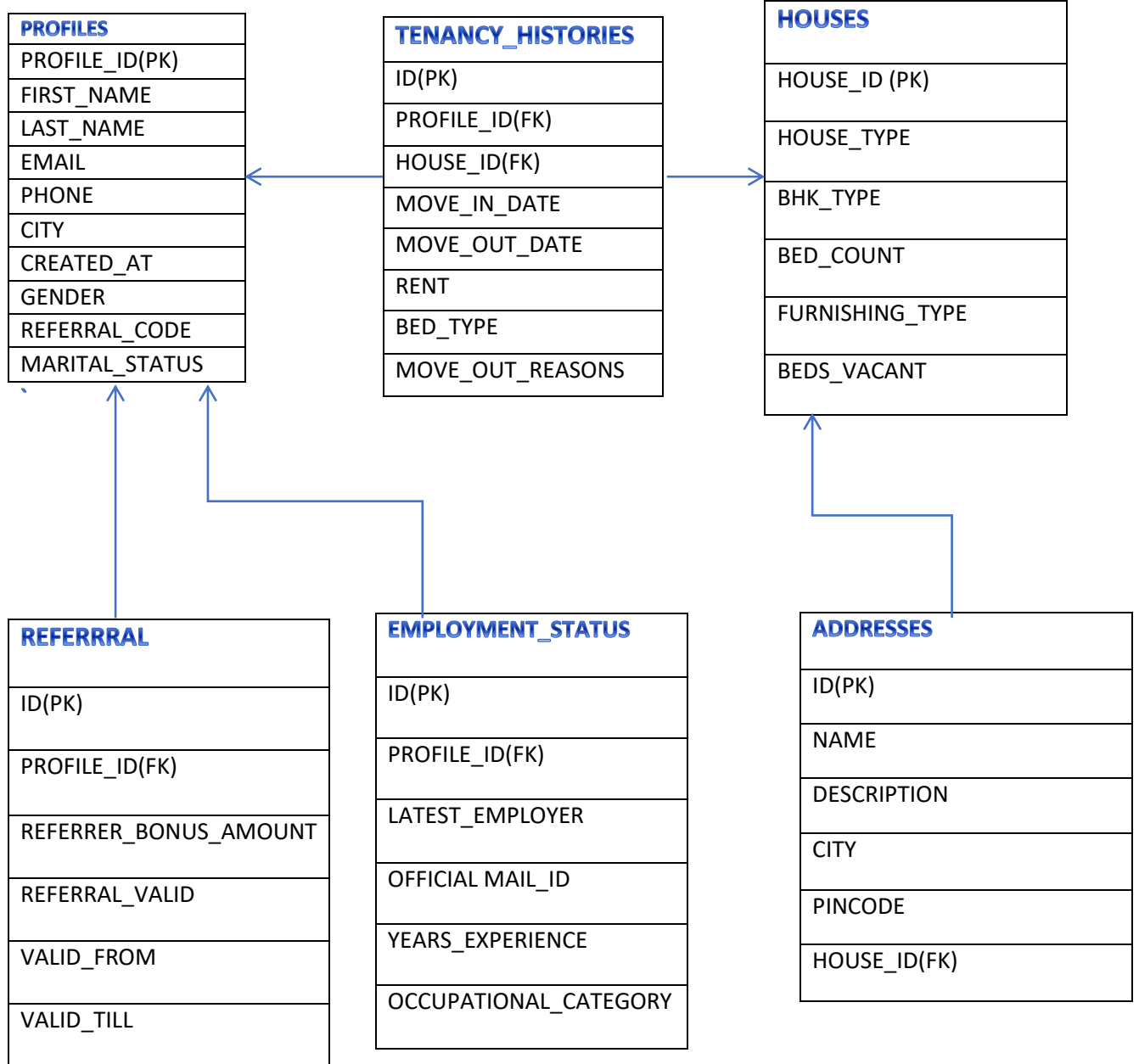
PROJECT ON SQL

NAME – VIVEK NAYAK

BATCH – T406

FACULTY INCHARGE – SANDIP JAISWAR

ENTITY RELATIONSHIP DIAGRAM

PROFILES
PROFILE_ID(PK)
FIRST_NAME
LAST_NAME
EMAIL
PHONE
CITY
CREATED_AT
GENDER
REFERRAL_CODE
MARITAL_STATUS

TENANCY_HISTORIES
ID(PK)
PROFILE_ID(FK)
HOUSE_ID(FK)
MOVE_IN_DATE
MOVE_OUT_DATE
RENT
BED_TYPE
MOVE_OUT_REASONS

HOUSES
HOUSE_ID (PK)
HOUSE_TYPE
BHK_TYPE
BED_COUNT
FURNISHING_TYPE
BEDS_VACANT

REFERRRAL
ID(PK)
PROFILE_ID(FK)
REFERRER_BONUS_AMOUNT
REFERRAL_VALID
VALID_FROM
VALID_TILL

EMPLOYMENT_STATUS
ID(PK)
PROFILE_ID(FK)
LATEST_EMPLOYER
OFFICIAL MAIL_ID
YEARS_EXPERIENCE
OCCUPATIONAL_CATEGORY

ADDRESSES
ID(PK)
NAME
DESCRIPTION
CITY
PINCODE
HOUSE_ID(FK)

STRUCTURE OF TABLE:

PROFILES

```
21  ● ⊖ CREATE TABLE Profiles (
22           profile_id int auto_increment NOT NULL PRIMARY KEY,
23           first_name varchar(255) NULL,
24           last_name varchar(255) NULL,
25           email varchar(255) NOT NULL,
26           phone varchar(255) NOT NULL,
27           city varchar(255) NULL,
28           created_at date NOT NULL,
29           gender varchar(255) NOT NULL,
30           referral_code varchar(255) NULL,
31           marital_status  varchar(255) NULL);
32
33  ●      desc Profiles;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: 𝐼A

Field	Type	Null	Key	Default	Extra
profile_id	int	NO	PRI	NULL	auto_increment
first_name	varchar(255)	YES		NULL	
last_name	varchar(255)	YES		NULL	
email	varchar(255)	NO		NULL	
phone	varchar(255)	NO		NULL	
city	varchar(255)	YES		NULL	
created_at	date	NO		NULL	
gender	varchar(255)	NO		NULL	
referral_code	varchar(255)	YES		NULL	
marital_status	varchar(255)	YES		NULL	

HOUSES

```
72  ●      create table Houses
73      ⊖ (
74         house_id int NOT NULL auto_increment primary key
75         ,house_type varchar(255) NULL
76         ,bhk_type varchar (255) NULL
77         ,bed_count int NOT NULL
78         ,furnishing_type varchar (255) NULL
79         ,beds_vacant int NOT NULL );
80
81  ●      desc Houses;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: 𝐼A

Field	Type	Null	Key	Default	Extra
house_id	int	NO	PRI	NULL	auto_increment
house_type	varchar(255)	YES		NULL	
bhk_type	varchar(255)	YES		NULL	
bed_count	int	NO		NULL	
furnishing_type	varchar(255)	YES		NULL	
beds_vacant	int	NO		NULL	

TENANCY_HISTORIES:

```
---
119 ●     create table Tenancy_histories
120  ⊝  (
121        id int NOT NULL  auto_increment PRIMARY KEY
122        ,profile_id int NOT NULL
123        ,house_id  int NOT NULL
124        ,move_in_date date NOT NULL
125        ,move_out_date date  NULL
126        ,rent int NOT NULL
127        ,bed_type varchar(255) NULL
128        ,move_out_reason varchar(255) NULL
129        ,constraint fk_Profiles2 foreign key(profile_id) references Profiles (profile_id)
130        ,constraint fk_Houses1 foreign key(house_id) references Houses (house_id));
131
132 ●     desc Tenancy_histories;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
profile_id	int	NO	MUL	NULL	
house_id	int	NO	MUL	NULL	
move_in_date	date	NO		NULL	
move_out_date	date	YES		NULL	
rent	int	NO		NULL	
bed_type	varchar(255)	YES		NULL	
move_out_reason	varchar(255)	YES		NULL	

ADDRESS:

```
180 ●     create table Address
181  ⊝  (
182        ad_id int NOT NULL auto_increment PRIMARY KEY
183        ,name varchar (255) NULL
184        ,description text NULL
185        ,pincode int NOT NULL
186        ,city varchar(255) NULL
187        ,house_id int NOT NULL
188        ,constraint fk_Houses foreign key(house_id)
189        references Houses (house_id));
190
191 ●     desc Address;
192
```

Result Grid | Filter Rows: | Export: | Wrap Cell Conte

Field	Type	Null	Key	Default	Extra
ad_id	int	NO	PRI	NULL	auto_increment
name	varchar(255)	YES		NULL	
description	text	YES		NULL	
pincode	int	NO		NULL	
city	varchar(255)	YES		NULL	
house_id	int	NO	MUL	NULL	

REFERRALS:

```
228 ●     create table Referrals
229   ⊖ (
230       ref_id int NOT NULL auto_increment PRIMARY KEY
231       ,referrer_bonus_amount float NULL
232       ,referral_valid tinyint NULL
233       ,valid_from date NULL
234       ,valid_till date NULL
235       ,profile_id int NOT NULL
236       ,constraint fk_Profiles foreign key(profile_id)
237     └ references Profiles (profile_id));
238
239 ●     desc Referrals;
240
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ĪA

Field	Type	Null	Key	Default	Extra
ref_id	int	NO	PRI	NULL	auto_increment
referrer_bonus_amount	float	YES		NULL	
referral_valid	tinyint	YES		NULL	
valid_from	date	YES		NULL	
valid_till	date	YES		NULL	
profile_id	int	NO	MUL	NULL	

EMPLOYMENT_DETAILS:

```
273 ●     create table Employment_details
274   ⊖ (
275       id int NOT NULL auto_increment PRIMARY KEY
276       ,profile_id int NOT NULL
277       ,latest_employer varchar(255) NULL
278       ,official_mail_id varchar(255) NULL
279       ,yrs_experience int NULL
280       ,occupational_category varchar(255) NULL
281       ,constraint fk_Profiles1 foreign key(profile_id)
282     └ references Profiles (profile_id));
283
284 ●     desc Employment_details;
285
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ĪA

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
profile_id	int	NO	MUL	NULL	
latest_employer	varchar(255)	YES		NULL	
official_mail_id	varchar(255)	YES		NULL	
yrs_experience	int	YES		NULL	
occupational_category	varchar(255)	YES		NULL	

INSERT VALUES INTO TABLE:

PROFILES:

```sql
set dateformat dmy;

INSERT INTO Profiles ( FIRST_NAME,Last_name, email, phone ,city,created_at, gender , referral_code,marital_status )
values('anusha','pariti','anusha.pariti@gmail.com',8105987404,'Bangalore','16-04-2015','F','7L5FZW','Y'),
('Ashish','Singh','ashish.singh@gmail.com',9876890463,'Bangalore','23-05-2015','M','KF34MF','Y'),
('Bhaskar','maheshwari','bhaskar.mah@gmail.com','9801834992','Bangalore','01-05-2015','M','5TYSHGF','N'),
('Garima','yadav','garima0191@gmail.com',81059237004,'Bangalore','20-10-2015','F','5G5FQW','N'),
('Tanvi','mann','tanvi.mann1907@gmail.com',9178352769,'Bangalore','16-02-2015','F','JSH48B','N'),
('Harish','sahai','harish294all@gmail.com',9876548763,'Bangalore','11-11-2015','M','MKGI2W','Y'),
('Kamal','gera','kamal0094@gmail.com',8105987404,'Bangalore','31-10-2015','M','MK34ER','N'),
('Tushar','kapoor','tushar.kapoor21@gmail.com',8926537154,'Pune','12-12-2015','M','KLF12E','N'),
('Shivshankar','das','sankar.shiva730@gmail.com','9801834992','Pune','06-10-2015','M','3RE5TY','Y'),
('Aditi','jain','aditi.jain@sproxil.com',9873123456,'Pune','11-06-2015','F','5TPL4E','N'),
('Deepa','sudhakar','sudhakar.deepa@gmail.com',7896785432,'Pune','15-09-2015','F','4RTYUIO','Y'),
('Umang','parejiya','uparejiya@gmail.com',7896543674,'Pune','18-07-2015','M','6TY4WE','N'),
('Mitali','gupta','mitali.gupta80@gmail.com',8796751238,'Pune','24-03-2015','F','5RTYU3','Y'),
('Manisha','Yadav','maniyadav88@gmail.com',9867845182,'Delhi','27-01-2015','F','LKGHY6','N'),
('Shivani','godha','shivani_go@nid.edu','9878673428','Delhi','19-02-2015','F','8NM4R','Y'),
('Rajan','pandey','raajanpandey@gmail.com',8987647811,'delhi','04-09-2015','M','5TYUIO','N'),
('Roosena','manuel','roseenasimimanuel@gmail.com',9875623345,'Delhi','13-04-2015','F','6TYHU','Y'),
('Prabhjot','gill','prabhjotgill09@gmail.com',9800786688,'Delhi','30-12-2015','M','GHJK34','N'),
('Ankita','sharma','ankita.anku96@gmail.com',9988789656,'Delhi','17-08-2015','F','TH67TY','Y'),
('Karan','Singh','karan.singh@gmail.com',8976665768,'Delhi','15-09-2015','M','LRF34F','N');

SELECT * FROM PROFILES;
```

profile_id	first_name	last_name	email	phone	city	created_at	gender	referral_code	marital_status
1	anusha	pariti	anusha.pariti@gmail.com	8105987404	Bangalore	2015-04-16	F	7L5FZW	Y
2	Ashish	Singh	ashish.singh@gmail.com	9876890463	Bangalore	2015-05-23	M	KF34MF	Y
3	Bhaskar	maheshwari	bhaskar.mah@gmail.com	9801834992	Bangalore	2015-05-01	M	5TYSHGF	N
4	Garima	yadav	garima0191@gmail.com	81059237004	Bangalore	2015-10-20	F	5G5FQW	N
5	Tanvi	mann	tanvi.mann1907@gmail.com	9178352769	Bangalore	2015-02-16	F	JSH48B	N
6	Harish	sahai	harish294all@gmail.com	9876548763	Bangalore	2015-11-11	M	MKGI2W	Y
7	Kamal	gera	kamal0094@gmail.com	8105987404	Bangalore	2015-10-31	M	MK34ER	N
8	Tushar	kapoor	tushar.kapoor21@gmail.com	8926537154	Pune	2015-12-12	M	KLF12E	N
9	Shivshankar	das	sankar.shiva730@gmail.com	9801834992	Pune	2015-10-06	M	3RE5TY	Y
10	Aditi	jain	aditi.jain@sproxil.com	9873123456	Pune	2015-06-11	F	5TPL4E	N
11	Deepa	sudhakar	sudhakar.deepa@gmail.com	7896785432	Pune	2015-09-15	F	4RTYUIO	Y
12	Umang	parejiya	uparejiya@gmail.com	7896543674	Pune	2015-07-18	M	6TY4WE	N
13	Mitali	gupta	mitali.gupta80@gmail.com	8796751238	Pune	2015-03-24	F	5RTYU3	Y
14	Manisha	Yadav	maniyadav88@gmail.com	9867845182	Delhi	2015-01-27	F	LKGHY6	N
15	Shivani	godha	shivani_go@nid.edu	9878673428	Delhi	2015-02-19	F	8NM4R	Y
16	Rajan	pandey	raajanpandey@gmail.com	8987647811	delhi	2015-09-04	M	5TYUIO	N
17	Roosena	manuel	roseenasimimanuel@gmail...	9875623345	Delhi	2015-04-13	F	6TYHU	Y
18	Prabhjot	gill	prabhjotgill09@gmail.com	9800786688	Delhi	2015-12-30	M	GHJK34	N
19	Ankita	sharma	ankita.anku96@gmail.com	9988789656	Delhi	2015-08-17	F	TH67TY	Y
20	Karan	Singh	karan.singh@gmail.com	8976665768	Delhi	2015-09-15	M	LRF34F	N

HOUSES:

```sql
insert into Houses (house_type,bhk_type,bed_count,furnishing_type,beds_vacant)
values ('Apartment','3 BHK',5,'unfurnished',2),
('Apartment','3 BHK',3,'unfurnished',1),
('Apartment','3 BHK',6,'fully-furnished',4),
('Apartment','2 BHK',2,'fully-furnished',0),
('Independent','4 BHK',4,'fully-furnished',2),
('Apartment','3 BHK',3,'semifurnished',1),
('Apartment','3 BHK',3,'semifurnished',0),
('Apartment','2 BHK',4,'fully-furnished',1),
('Independent','1 BHK',2,'unfurnished',0),
('Independent','3 BHK',3,'fully-furnished',1),
('Apartment','1 BHK',1,'unfurnished',0),
('Independent','1 BHK',2,'unfurnished',1),
('Independent','2 BHK',4,'unfurnished',2),
('Apartment','3 BHK',3,'fully-furnished',0),
('Independent','1 BHK',2,'unfurnished',1),
('Apartment','3 BHK',3,'fully-furnished',0),
('Independent','3 BHK',3,'fully-furnished',1),
('Independent','2 BHK',2,'fully-furnished',1),
('Independent','3 BHK',3,'fully-furnished',1),
('Independent','1 BHK',2,'unfurnished',2);

select * from houses;
```

	house_id	house_type	bhk_type	bed_count	furnishing_type	beds_vacant
1	1	Apartment	3 BHK	5	unfurnished	2
2	2	Apartment	3 BHK	3	unfurnished	1
3	3	Apartment	3 BHK	6	fully-furnished	4
4	4	Apartment	2 BHK	2	fully-furnished	0
5	5	Independent	4 BHK	4	fully-furnished	2
6	6	Apartment	3 BHK	3	semifurnished	1
7	7	Apartment	3 BHK	3	semifurnished	0
8	8	Apartment	2 BHK	4	fully-furnished	1
9	9	Independent	1 BHK	2	unfurnished	0
10	10	Independent	3 BHK	3	fully-furnished	1
11	11	Apartment	1 BHK	1	unfurnished	0
12	12	Independent	1 BHK	2	unfurnished	1
13	13	Independent	2 BHK	4	unfurnished	2
14	14	Apartment	3 BHK	3	fully-furnished	0
15	15	Independent	1 BHK	2	unfurnished	1
16	16	Apartment	3 BHK	3	fully-furnished	0
17	17	Independent	3 BHK	3	fully-furnished	1
18	18	Independent	2 BHK	2	fully-furnished	1
19	19	Independent	3 BHK	3	fully-furnished	1
20	20	Independent	1 BHK	2	unfurnished	2

Tenancy_histories:

```sql
set dateformat dmy;

insert into Tenancy_histories (profile_id ,house_id ,move_in_date , move_out_date, rent ,bed_type, move_out_reason)
values
(1,5,'12-02-2015','30-04-2016',7500,'bed','MOVE_OUT'),
(2,2,'05-06-2015',NULL    ,11000 , 'room' , NULL ),
(3,4,'28-10-2015','28-11-2016',12000,'room','RENT_CHANGE'),
(4,1,'26-04-2015', NULL,8000,'bed', NULL),
(5,3,'15-05-2015','27-12-2015',9000,'bed','MOVE_OUT'),
(6,8,'25-12-2015', NULL,10200,'room', NULL),
(7,6,'20-11-2015', NULL,6500,'bed', NULL),
(8,7,'10-11-2015','31-12-2016',7200,'bed','MOVE_OUT'),
(9,9,'15-10-2015', NULL,7500,'bed', NULL),
(10,10,'20-06-2015', NULL,7500,'bed', NULL),
(11,19,'29-08-2015','14-06-2016',8000,'bed','INTERNAL_TRANSFER'),
(12,15,'24-02-2015', NULL,11000,'room', NULL),
(13,12,'25-02-2015', NULL,12000,'room', NULL),
(14,18,'07-01-2016','30-12-2016',13500,'room','MOVE_OUT'),
(15,13,'07-04-2015', NULL,6500,'bed', NULL),
(16,17,'23-04-2015', NULL,6500,'bed', NULL),
(17,14,'10-02-2015', NULL,10500,'room', NULL),
(18,16,'16-10-2015','04-09-2016',8000,'bed','MOVE_OUT'),
(19,20,'26-09-2015', NULL,7500,'bed', NULL),
(20,11,'30-09-2015', NULL,9500,'bed', NULL);


select * from Tenancy_histories;
```

id	profile_id	house_id	move_in_date	move_out_date	rent	bed_type	move_out_reason
1	1	5	2015-02-12	2016-04-30	7500	bed	MOVE_OUT
2	2	2	2015-06-05	NULL	11000	room	NULL
3	3	4	2015-10-28	2016-11-28	12000	room	RENT_CHANGE
4	4	1	2015-04-26	NULL	8000	bed	NULL
5	5	3	2015-05-15	2015-12-27	9000	bed	MOVE_OUT
6	6	8	2015-12-25	NULL	10200	room	NULL
7	7	6	2015-11-20	NULL	6500	bed	NULL
8	8	7	2015-11-10	2016-12-31	7200	bed	MOVE_OUT
9	9	9	2015-10-15	NULL	7500	bed	NULL
10	10	10	2015-06-20	NULL	7500	bed	NULL
11	11	19	2015-08-29	2016-06-14	8000	bed	INTERNAL_TRANSFER
12	12	15	2015-02-24	NULL	11000	room	NULL
13	13	12	2015-02-25	NULL	12000	room	NULL
14	14	18	2016-01-07	2016-12-30	13500	room	MOVE_OUT
15	15	13	2015-04-07	NULL	6500	bed	NULL
16	16	17	2015-04-23	NULL	6500	bed	NULL
17	17	14	2015-02-10	NULL	10500	room	NULL
18	18	16	2015-10-16	2016-09-04	8000	bed	MOVE_OUT
19	19	20	2015-09-26	NULL	7500	bed	NULL
20	20	11	2015-09-30	NULL	9500	bed	NULL

ADDRESS:

```sql
select * from Address;


insert into Address (name ,description ,pincode , city ,house_id)
values
('Zaanz appartment','Sterling BrookSide, Opp. Kundalahalli Colony, ITPL Main Rd',560037,'bangalore',1),
('stag saptgiri','No.44,Ground floor,20th cross,Sector 2 HSR Layout,Bangalore.',560102,'bangalore',2),
('sri sai enclave','No.44,First floor,20th cross,Sector 2 HSR Layout.',560102,'bangalore',3),
('orchids building','D-208, Balaji Pristine Whitefield Main Road',560066,'bangalore',4),
('Fella homes','#11,Annaiya Reddy Rd, Narayana Reddy Layout,Phase 2,Electronic City',560100 ,'bangalore',5),
('Juniper appartments','# 595/1, 1st Floor,1st A main, Domlur Layout',560038,'bangalore',6),
('UDB Building','Flat No: T1 Deccan Field Appartment Kunadanhalli main road',560037,'bangalore',7),
 ('Apoorva society','Flat No-202, Apoorva Apartment No-296 Vyalikaval House Building Cooperative Society Ltd Nagavara',561202,'Delhi',8),
('Stag saptgiri','Flat No-202, stag saptgiri No-26 phase2 Cooperative Society',560045,'Delhi',9),
('VaK Residency','302,#473 VAK Residency, B-Block, AECS Layout,Kundalahalli',456738,'Delhi',10),
('Sunshine hills','Flat no 3, water ville apartment R.galli',100234,'Delhi',11),
('Sri Sai appartment','2nd House, No-80/289, Sri Hari Darshan Nilaya, Ground Floor, Bellandur',560107,'Delhi',12),
('Barvika Residency B105','1st floor, B block, Barvika Residency     ',5610023,'Delhi',13),
('Nestaway building #157','4th Cross, 1st Main Road, Lower Palace Orchard',546783,'Delhi',14),
('Windsor Plaza #301','Windsor Plaza,ITPL',560025,'Pune',15),
('Indira society','No. 502, Indira Meadows, Arunodaya Colony',302017,'Pune',16),
('Sri Krishna Society','Flat No-211 Sri Krishna sai enclave, Hoodi village, beside Vivekananda Ashram, Mahadevapura post',560048,'Pune',17),
('uniworld  D1-1201','Uniworld Garden 2',543678,'Pune',18),
('Vinayaka residency','49, House 1 lathangi 2nd main vinayaka housing layout, RMV 2nd stage bhoopasandra',560094,'Pune',19),
('Sun city appartments','Majeera Diamond Towers,malad-west',5600263,'Pune',20);

select * from Address;
```

Results | **Messages**

ad_id	name	description	pincode	city	house_id
2	Zaanz appartment	Sterling BrookSide, Opp. Kundalahalli Colony, ITPL M...	560037	bangalore	1
3	stag saptgiri	No.44,Ground floor,20th cross,Sector 2 HSR Layout,B...	560102	bangalore	2
4	sri sai enclave	No.44,First floor,20th cross,Sector 2 HSR Layout.	560102	bangalore	3
5	orchids building	D-208, Balaji Pristine Whitefield Main Road	560066	bangalore	4
6	Fella homes	#11,Annaiya Reddy Rd, Narayana Reddy Layout,Pha...	560100	bangalore	5
7	Juniper appartments	# 595/1, 1st Floor,1st A main, Domlur Layout	560038	bangalore	6
8	UDB Building	Flat No: T1 Deccan Field Appartment Kunadanhalli ma...	560037	bangalore	7
9	Apoorva society	Flat No-202, Apoorva Apartment No-296 Vyalikaval H...	561202	Delhi	8
10	Stag saptgiri	Flat No-202, stag saptgiri No-26 phase2 Cooperative ...	560045	Delhi	9
11	VaK Residency	302,#473 VAK Residency, B-Block, AECS Layout,Kun...	456738	Delhi	10
12	Sunshine hills	Flat no 3, water ville apartment R.galli	100234	Delhi	11
13	Sri Sai appartment	2nd House, No-80/289, Sri Hari Darshan Nilaya, Grou...	560107	Delhi	12
14	Barvika Residency...	1st floor, B block, Barvika Residency	5610...	Delhi	13
15	Nestaway building ...	4th Cross, 1st Main Road, Lower Palace Orchard	546783	Delhi	14
16	Windsor Plaza #301	Windsor Plaza,ITPL	560025	Pune	15
17	Indira society	No. 502, Indira Meadows, Arunodaya Colony	302017	Pune	16
18	Sri Krishna Society	Flat No-211 Sri Krishna sai enclave, Hoodi village, bes...	560048	Pune	17
19	uniworld D1-1201	Uniworld Garden 2	543678	Pune	18
20	Vinayaka residency	49, House 1 lathangi 2nd main vinayaka housing layo...	560094	Pune	19
21	Sun city appartme...	Majeera Diamond Towers,malad-west	5600...	Pune	20

REFERRAL:

```sql
set DATEFORMAT dmy;

insert into Referrals (referrer_bonus_amount ,referral_valid ,valid_from , valid_till ,profile_id)
values
(2500,1,'05-07-2015','05-09-2015',2),
(2500,1,'05-07-2015','05-09-2015',3),
(1000,0,'13-12-2015','13-02-2016',5),
(2500,0,'25-04-2016','24-06-2016',6),
(1000,1,'01-07-2015','01-09-2015',10),
(2500,1,'12-05-2015','12-07-2015',12),
(2500,0,'05-08-2015','05-10-2015',13),
(1000,1,'05-02-2016','05-04-2016',20),
(2500,0,'12-08-2015','12-09-2015',2),
(1000,1,'18-02-2016','18-04-2016',5),
(1500,1,'19-06-2016','19-08-2016',20),
(2500,0,'15-11-2015','15-01-2016',9),
(1000,1,'01-02-2016','01-04-2016',13),
(1000,1,'25-04-2016','24-06-2016',5);

select * from Referrals
```

ref_id	referrer_bonus_amount	referral_valid	valid_from	valid_till	profile_id
1	2500	1	2015-07-05	2015-09-05	2
2	2500	1	2015-07-05	2015-09-05	3
3	1000	0	2015-12-13	2016-02-13	5
4	2500	0	2016-04-25	2016-06-24	6
5	1000	1	2015-07-01	2015-09-01	10
6	2500	1	2015-05-12	2015-07-12	12
7	2500	0	2015-08-05	2015-10-05	13
8	1000	1	2016-02-05	2016-04-05	20
9	2500	0	2015-08-12	2015-09-12	2
10	1000	1	2016-02-18	2016-04-18	5
11	1500	1	2016-06-19	2016-08-19	20
12	2500	0	2015-11-15	2016-01-15	9
13	1000	1	2016-02-01	2016-04-01	13
14	1000	1	2016-04-25	2016-06-24	5

EMPLOYMENT DETAILS:

```sql
insert into Employment_details (profile_id ,latest_employer ,official_mail_id , yrs_experience ,occupational_category)
values
(1,'Sabre','mehdi.hasan@sabre.com',1,'Working'),
(2,'hindustan unilever','rags.ramgas@gmail.com',2,'Working'),
(3,'Technicolor','jigna.thacker@technicolor.com',1,'Working'),
(4, NULL, NULL, NULL,'Student'),
(5,'GE Healthcare','ruchita.save@ge.com',3,'Working'),
(6,'Aditya birla','shubhi.bajpai@adityabirla.com',3,'Working'),
(7, NULL, NULL, NULL,'Student'),
(8,NULL,NULL,NULL,'Student'),
(9,NULL,NULL,NULL,'Student'),
(10,'huawei Technologies','gunjan19wadhwa@gmail.com',4,'Working'),
(11,NULL,NULL,NULL,'Student'),
(12,'Centurylink India','PreetInder.Sodhi@centurylink.com',2,'Working'),
(13,'SAP Labs India','udit.singh@sap.com',2,'Working'),
(14,'NestAway','deepak@nestaway.com',1,'Working'),
(15,NULL,NULL,NULL,'Student'),
(16,NULL,NULL,NULL,'Student'),
(17,'Microsoft','t-akmeh@microsoft.com',2,'Working'),
(18,'Cognizant','bhavranjan.pandey@cognizant.com',2,'Working'),
(19,NULL,NULL,NULL,'Student'),
(20,'Tiny Mogul Games','sanchit@hike.in',3,'Working');


select * from Employment_details;
```

id	profile_id	latest_employer	official_mail_id	yrs_experience	occupational_category
1	1	Sabre	mehdi.hasan@sabre.com	1	Working
2	2	hindustan unilever	rags.ramgas@gmail.com	2	Working
3	3	Technicolor	jigna.thacker@technicolor.com	1	Working
4	4	NULL	NULL	NULL	Student
5	5	GE Healthcare	ruchita.save@ge.com	3	Working
6	6	Aditya birla	shubhi.bajpai@adityabirla.com	3	Working
7	7	NULL	NULL	NULL	Student
8	8	NULL	NULL	NULL	Student
9	9	NULL	NULL	NULL	Student
10	10	huawei Technologies	gunjan19wadhwa@gmail.com	4	Working
11	11	NULL	NULL	NULL	Student
12	12	Centurylink India	PreetInder.Sodhi@centurylin...	2	Working
13	13	SAP Labs India	udit.singh@sap.com	2	Working
14	14	NestAway	deepak@nestaway.com	1	Working
15	15	NULL	NULL	NULL	Student
16	16	NULL	NULL	NULL	Student
17	17	Microsoft	t-akmeh@microsoft.com	2	Working
18	18	Cognizant	bhavranjan.pandey@cogniz...	2	Working
19	19	NULL	NULL	NULL	Student
20	20	Tiny Mogul Games	sanchit@hike.in	3	Working

QUERY:

1.

```
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 top 2 with ties Profiles.profile_id ,Profiles.first_name + ' '+ Profiles.last_name as Fullname, Profiles.phone,email,
DATEDIFF(day,move_in_date,move_out_date) as totaldays
from  Profiles
INNER JOIN Tenancy_histories on Profiles.profile_id = Tenancy_histories.profile_id
order by totaldays desc;
```

Results Messages

profile_id	Fullname	phone	email	totaldays
1	anusha pariti	8105987404	anusha.pariti@gmail.com	443
8	Tushar kapoor	8926537154	tushar.kapoor21@gmail.com	417

2.

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

select first_name+ ' '+ last_name as FULL_NAME,phone,email
FROM Profiles
WHERE profile_id IN
(
    SELECT profile_id
    FROM Profiles
    WHERE marital_status= 'Y' ) AND  profile_id IN
            (   SELECT profile_id
                FROM [dbo].[Tenancy_histories]
                WHERE rent> '9000') ;




select p.first_name+ ' '+ p.last_name as FULL_NAME,p.phone,p.email,t.rent
from profiles p inner join Tenancy_histories t on p.profile_id = t.profile_id where p.marital_status='y' and t.rent >9000 ;
```

1 %

Results Messages

	FULL_NAME	phone	email	rent
1	Ashish Singh	9876890463	ashish.singh@gmail.com	11000
2	Harish sahai	9876548763	harish294all@gmail.com	10200
3	Mitali gupta	8796751238	mitali.gupta80@gmail.com	12000
4	Roosena manuel	9875623345	roseenasimimanuel@gmail.com	10500

3.

```sql
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 Profiles.profile_id ,Profiles.first_name + ' '+ Profiles.last_name as Fullname, Profiles.phone,Profiles.email,Profiles.city,
Tenancy_histories.house_id,Tenancy_histories.move_in_date,Tenancy_histories.move_out_date,Tenancy_histories.rent,Employment_details.latest_employer,
Employment_details.occupational_category  ,sum(Referrals.referral_valid) as total_referral_made
from  Profiles
INNER JOIN Tenancy_histories on Profiles.profile_id = Tenancy_histories.profile_id
INNER JOIN Employment_details ON Profiles.profile_id =Employment_details.profile_id
INNER JOIN Referrals on Profiles.profile_id = Referrals.profile_id
where (city in ('Pune', 'Bangalore')) and (move_in_date >= '01-01-2015' and move_out_date <= '01-01-2016' )
group  by Tenancy_histories.rent,Profiles.profile_id,email,city,house_id,first_name,last_name,phone,move_in_date,move_out_date,latest_employer,
occupational_category
```

Results | Messages

profile_id	Fullname	phone	email	city	house_id	move_in_date	move_out_date	rent	latest_employer	occupational_category	total_referral_made
5	Tanvi mann	9178352769	tanvi.mann1907@gmail.com	Bangalore	3	2015-05-15	2015-12-27	9000	GE Healthcare	Working	2

4.

```sql
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 Profiles.profile_id, first_name + ' ' + last_name as FullName,email, phone, referral_code,referral_valid,
sum(referrer_bonus_amount) as total_referrer_bonus,

SUM(case when referral_valid = 1 then referrer_bonus_amount
              else 0
       end) AS [Total Valid Bonus Amount],
           COUNT(ref_id) AS [Total referrals] from Profiles
           inner join Referrals on Profiles.profile_id = Referrals.profile_id
group by Profiles.profile_id, first_name, last_name,email, phone, referral_code,referral_valid
having(SUM(referral_valid) >1)
```

Results | Messages

profile_id	FullName	email	phone	referral_code	referral_valid	total_referrer_bonus	Total Valid Bonus Amount	Total referrals
5	Tanvi mann	tanvi.mann1907@gmail.com	9178352769	JSH48B	1	2000	2000	2
20	Karan Singh	karan.singh@gmail.com	8976665768	LRF34F	1	2500	2500	2

5.

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

select Profiles.city,sum(Tenancy_histories.rent) as each_city_sum
from Profiles
INNER JOIN Tenancy_histories on Profiles.profile_id = Tenancy_histories.profile_id
group by city
union
select 'total' ,sum(rent) from Tenancy_histories
```

1 %

▦ Results   ▦ Messages

	city	each_city_sum
1	Bangalore	64200
2	Delhi	62000
3	Pune	53200
4	total	179400

6.

```
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_tenat as
select profile_id,rent,move_in_date,house_type,beds_vacant,name,description ,city,pincode
from Houses
INNER JOIN Tenancy_histories on Houses.house_id = Tenancy_histories.house_id
INNER JOIN Address on Houses.house_id = Address.house_id
where (move_in_date >= '04-30-2015') and (beds_vacant >=1)


select * from vw_tenat
```

91 %

▦ Results   ▦ Messages

	profile_id	rent	move_in_date	house_type	beds_vacant	name	description	city	pincode
1	2	11000	2015-06-05	Apartment	1	stag saptgiri	No.44,Ground floor,20th cross,Sector 2 HSR Layout,B...	bangalore	560102
2	5	9000	2015-05-15	Apartment	4	sri sai enclave	No.44,First floor,20th cross,Sector 2 HSR Layout.	bangalore	560102
3	7	6500	2015-11-20	Apartment	1	Juniper appartments	# 595/1, 1st Floor,1st A main, Domlur Layout	bangalore	560038
4	6	10200	2015-12-25	Apartment	1	Apoorva society	Flat No-202, Apoorva Apartment No-296 Vyalikaval H...	Delhi	561202
5	10	7500	2015-06-20	Independent	1	VaK Residency	302,#473 VAK Residency, B-Block, AECS Layout,Kun...	Delhi	456738
6	14	13500	2016-01-07	Independent	1	uniworld D1-1201	Uniworld Garden 2	Pune	543678
7	11	8000	2015-08-29	Independent	1	Vinayaka residency	49, House 1 lathangi 2nd main vinayaka housing layo...	Pune	560094
8	19	7500	2015-09-26	Independent	2	Sun city appartments	Majeera Diamond Towers,malad-west	Pune	5600263

7.

```
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(DAY,30,valid_till)

where
profile_id in (

select profile_id
from
Referrals
group by profile_id
having(SUM(referral_valid) >2))

select * from Referrals
```

91 %

Results / Messages

	ref_id	referrer_bonus_amount	referral_valid	valid_from	valid_till	profile_id
1	1	2500	1	2015-07-05	2015-09-05	2
2	2	2500	1	2015-07-05	2015-09-05	3
3	3	1000	0	2015-12-13	2016-02-13	5
4	4	2500	0	2016-04-25	2016-06-24	6
5	5	1000	1	2015-07-01	2015-09-01	10
6	6	2500	1	2015-05-12	2015-07-12	12
7	7	2500	0	2015-08-05	2015-10-05	13
8	8	1000	1	2016-02-05	2016-04-05	20
9	9	2500	0	2015-08-12	2015-09-12	2
10	10	1000	1	2016-02-18	2016-04-18	5
11	11	1500	1	2016-06-19	2016-08-19	20
12	12	2500	0	2015-11-15	2016-01-15	9
13	13	1000	1	2016-02-01	2016-04-01	13
14	14	1000	1	2016-04-25	2016-06-24	5

8.

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

select first_name + ' ' + last_name as FullName, phone,email, city, house_type,bhk_type,furnishing_type
from Profiles
inner join Houses on Profiles.profile_id = Houses.house_id
where Profiles.profile_id not in (select ref_id from Referrals)
```

91 %

Results / Messages

	FullName	phone	email	city	house_type	bhk_type	furnishing_type
1	Shivani godha	9878673428	shivani_go@nid.edu	Delhi	Independent	1 BHK	unfurnished
2	Rajan pandey	8987647811	raajanpandey@gmail.com	delhi	Apartment	3 BHK	fully-furnished
3	Roosena manuel	9875623345	roseenasimimanuel@gmail.com	Delhi	Independent	3 BHK	fully-furnished
4	Prabhjot gill	9800786688	prabhjotgill09@gmail.com	Delhi	Independent	2 BHK	fully-furnished
5	Ankita sharma	9988789656	ankita.anku96@gmail.com	Delhi	Independent	3 BHK	fully-furnished
6	Karan Singh	8976665768	karan.singh@gmail.com	Delhi	Independent	1 BHK	unfurnished

9.

```
9. 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 Profiles.profile_id , first_name + ' ' + last_name as FullName, phone,rent,
IIF(rent>10000,'Grade A',iif(rent>7500,'Grade B','Grade C')) as customer_segment
from Profiles
INNER JOIN Tenancy_histories on Profiles.profile_id = Tenancy_histories.profile_id
order by rent desc;
```

91 %

Results | Messages

	profile_id	FullName	phone	rent	customer_segment
1	14	Manisha Yadav	9867845182	13500	Grade A
2	3	Bhaskar maheshwari	9801834992	12000	Grade A
3	13	Mitali gupta	8796751238	12000	Grade A
4	2	Ashish Singh	9876890463	11000	Grade A
5	12	Umang parejiya	7896543674	11000	Grade A
6	17	Roosena manuel	9875623345	10500	Grade A
7	6	Harish sahai	9876548763	10200	Grade A
8	20	Karan Singh	8976665768	9500	Grade B
9	5	Tanvi mann	9178352769	9000	Grade B
10	4	Garima yadav	81059237004	8000	Grade B
11	18	Prabhjot gill	9800786688	8000	Grade B
12	11	Deepa sudhakar	7896785432	8000	Grade B
13	9	Shivshankar das	9801834992	7500	Grade C
14	10	Aditi jain	9873123456	7500	Grade C
15	19	Ankita sharma	9988789656	7500	Grade C
16	1	anusha pariti	8105987404	7500	Grade C
17	8	Tushar kapoor	8926537154	7200	Grade C
18	7	Kamal gera	8105987404	6500	Grade C
19	15	Shivani godha	9878673428	6500	Grade C
20	16	Rajan pandey	8987647811	6500	Grade C

10.

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


select top 1 with ties house_id,house_type, bhk_type , bed_count, furnishing_type, beds_vacant ,(bed_count-beds_vacant) as house_occupancy
from Houses
order by house_occupancy desc;
```

91 %

Results | Messages

	house_id	house_type	bhk_type	bed_count	furnishing_type	beds_vacant	house_occupancy
1	1	Apartment	3 BHK	5	unfurnished	2	3
2	7	Apartment	3 BHK	3	semifurnished	0	3
3	8	Apartment	2 BHK	4	fully-furnished	1	3
4	14	Apartment	3 BHK	3	fully-furnished	0	3
5	16	Apartment	3 BHK	3	fully-furnished	0	3

11.

```sql
11.

UPDATE Employment_details
SET yrs_experience= yrs_experience + 1
WHERE occupational_category  = 'WORKING' ;


SELECT * FROM Employment_details
```

91 %

Results | **Messages**

	id	profile_id	latest_employer	official_mail_id	yrs_experience	occupational_category
1	1	1	Sabre	mehdi.hasan@sabre.com	2	Working
2	2	2	hindustan unilever	rags.ramgas@gmail.com	3	Working
3	3	3	Technicolor	jigna.thacker@technicolor.com	2	Working
4	4	4	NULL	NULL	NULL	Student
5	5	5	GE Healthcare	ruchita.save@ge.com	4	Working
6	6	6	Aditya birla	shubhi.bajpai@adityabirla.com	4	Working
7	7	7	NULL	NULL	NULL	Student
8	8	8	NULL	NULL	NULL	Student
9	9	9	NULL	NULL	NULL	Student
10	10	10	huawei Technologies	gunjan19wadhwa@gmail.com	5	Working
11	11	11	NULL	NULL	NULL	Student
12	12	12	Centurylink India	PreetInder.Sodhi@centurylink.com	3	Working
13	13	13	SAP Labs India	udit.singh@sap.com	3	Working
14	14	14	NestAway	deepak@nestaway.com	2	Working
15	15	15	NULL	NULL	NULL	Student
16	16	16	NULL	NULL	NULL	Student
17	17	17	Microsoft	t-akmeh@microsoft.com	3	Working
18	18	18	Cognizant	bhavranjan.pandey@cognizant.com	3	Working
19	19	19	NULL	NULL	NULL	Student
20	20	20	Tiny Mogul Games	sanchit@hike.in	4	Working

12.

```sql
12.

select *, rank() over (partition by city order by gender  ) rank from profiles
```

1 %

Results | **Messages**

	profile_id	first_name	last_name	email	phone	city	created_at	gender	referral_code	marital_status	rank
1	4	Garima	yadav	garima0191@gmail.com	81059237004	Bangalore	2015-10-20	F	5G5FQW	N	1
2	5	Tanvi	mann	tanvi.mann1907@gmail.com	9178352769	Bangalore	2015-02-16	F	JSH48B	N	1
3	1	anusha	pariti	anusha.pariti@gmail.com	8105987404	Bangalore	2015-04-16	F	7L5FZW	Y	1
4	2	Ashish	Singh	ashish.singh@gmail.com	9876890463	Bangalore	2015-05-23	M	KF34MF	Y	4
5	3	Bhaskar	maheshwari	bhaskar.mah@gmail.com	9801834992	Bangalore	2015-05-01	M	5TYSHGF	N	4
6	6	Harish	sahai	harish294all@gmail.com	9876548763	Bangalore	2015-11-11	M	MKGI2W	Y	4
7	7	Kamal	gera	kamal0094@gmail.com	8105987404	Bangalore	2015-10-31	M	MK34ER	N	4
8	14	Manisha	Yadav	maniyadav88@gmail.com	9867845182	Delhi	2015-01-27	F	LKGHY6	N	1
9	15	Shivani	godha	shivani_go@nid.edu	9878673428	Delhi	2015-02-19	F	8NM4R	Y	1
10	17	Roosena	manuel	roseenasimimanuel@gmail.com	9875623345	Delhi	2015-04-13	F	6TYHU	Y	1
11	19	Ankita	sharma	ankita.anku96@gmail.com	9988789656	Delhi	2015-08-17	F	TH67TY	Y	1
12	20	Karan	Singh	karan.singh@gmail.com	8976665768	Delhi	2015-09-15	M	LRF34F	N	5
13	18	Prabhjot	gill	prabhjotgill09@gmail.com	9800786688	Delhi	2015-12-30	M	GHJK34	N	5
14	16	Rajan	pandey	raajanpandey@gmail.com	8987647811	delhi	2015-09-04	M	5TYUIO	N	5
15	13	Mitali	gupta	mitali.gupta80@gmail.com	8796751238	Pune	2015-03-24	F	5RTYU3	Y	1
16	10	Aditi	jain	aditi.jain@sproxil.com	9873123456	Pune	2015-06-11	F	5TPL4E	N	1
17	11	Deepa	sudhakar	sudhakar.deepa@gmail.com	7896785432	Pune	2015-09-15	F	4RTYUIO	Y	1
18	12	Umang	parejiya	uparejiya@gmail.com	7896543674	Pune	2015-07-18	M	6TY4WE	N	4
19	8	Tushar	kapoor	tushar.kapoor21@gmail.com	8926537154	Pune	2015-12-12	M	KLF12E	N	4
20	9	Shivshankar	das	sankar.shiva730@gmail.com	9801834992	Pune	2015-10-06	M	3RE5TY	Y	4

13.

```sql
13.
select * from
(select *, rank() over (partition by city order by gender  ) rank from profiles ) a where a.rank = 1
```

	profile_id	first_name	last_name	email	phone	city	created_at	gender	referral_code	marital_status	rank
1	4	Garima	yadav	garima0191@gmail.com	81059237004	Bangalore	2015-10-20	F	5G5FQW	N	1
2	5	Tanvi	mann	tanvi.mann1907@gmail.com	9178352769	Bangalore	2015-02-16	F	JSH48B	N	1
3	1	anusha	pariti	anusha.pariti@gmail.com	8105987404	Bangalore	2015-04-16	F	7L5FZW	Y	1
4	14	Manisha	Yadav	maniyadav88@gmail.com	9867845182	Delhi	2015-01-27	F	LKGHY6	N	1
5	15	Shivani	godha	shivani_go@nid.edu	9878673428	Delhi	2015-02-19	F	8NM4R	Y	1
6	17	Roosena	manuel	roseenasimimanuel@gmail.com	9875623345	Delhi	2015-04-13	F	6TYHU	Y	1
7	19	Ankita	sharma	ankita.anku96@gmail.com	9988789656	Delhi	2015-08-17	F	TH67TY	Y	1
8	13	Mitali	gupta	mitali.gupta80@gmail.com	8796751238	Pune	2015-03-24	F	5RTYU3	Y	1
9	10	Aditi	jain	aditi.jain@sproxil.com	9873123456	Pune	2015-06-11	F	5TPL4E	N	1
10	11	Deepa	sudhakar	sudhakar.deepa@gmail.com	7896785432	Pune	2015-09-15	F	4RTYUIO	Y	1

14.

```sql
14.
select p.first_name,p.city,T.RENT, rank() over (partition by city order by t.rent  DESC) rank from profiles p inner join Tenancy_histories t
on p.profile_id= t.profile_id
```

	first_name	city	RENT	rank
1	Bhaskar	Bangalore	12000	1
2	Ashish	Bangalore	11000	2
3	Harish	Bangalore	10200	3
4	Tanvi	Bangalore	9000	4
5	Garima	Bangalore	8000	5
6	anusha	Bangalore	7500	6
7	Kamal	Bangalore	6500	7
8	Manisha	Delhi	13500	1
9	Roosena	Delhi	10500	2
10	Karan	Delhi	9500	3
11	Prabhjot	Delhi	8000	4
12	Ankita	Delhi	7500	5
13	Shivani	Delhi	6500	6
14	Rajan	delhi	6500	6
15	Mitali	Pune	12000	1
16	Umang	Pune	11000	2
17	Deepa	Pune	8000	3
18	Shivshankar	Pune	7500	4
19	Aditi	Pune	7500	4
20	Tushar	Pune	7200	6

15.

```
15.
SELECT * from (
select p.first_name,p.city,T.RENT, rank() over (partition by city order by t.rent  DESC) rank from profiles p inner join Tenancy_histories t
on p.profile_id= t.profile_id ) a where a.rank=1
```

91 %

Results   Messages

	first_name	city	RENT	rank
1	Bhaskar	Bangalore	12000	1
2	Manisha	Delhi	13500	1
3	Mitali	Pune	12000	1

16.

```
16.
SELECT * ,FIRST_VALUE(RENT) OVER (PARTITION BY BED_TYPE ORDER BY rent ) FIRST_RENT,LAST_value(rent) over (PARTITION BY BED_TYPE ORDER BY rent ) last_rent
FROM tenancy_histories;
```

91 %

Results   Messages

	id	profile_id	house_id	move_in_date	move_out_date	rent	bed_type	move_out_reason	FIRST_RENT	last_rent
1	7	7	6	2015-11-20	NULL	6500	bed	NULL	6500	6500
2	15	15	13	2015-04-07	NULL	6500	bed	NULL	6500	6500
3	16	16	17	2015-04-23	NULL	6500	bed	NULL	6500	6500
4	8	8	7	2015-11-10	2016-12-31	7200	bed	MOVE_OUT	6500	7200
5	9	9	9	2015-10-15	NULL	7500	bed	NULL	6500	7500
6	10	10	10	2015-06-20	NULL	7500	bed	NULL	6500	7500
7	19	19	20	2015-09-26	NULL	7500	bed	NULL	6500	7500
8	1	1	5	2015-02-12	2016-04-30	7500	bed	MOVE_OUT	6500	7500
9	4	4	1	2015-04-26	NULL	8000	bed	NULL	6500	8000
10	11	11	19	2015-08-29	2016-06-14	8000	bed	INTERNAL_TRANSFER	6500	8000
11	18	18	16	2015-10-16	2016-09-04	8000	bed	MOVE_OUT	6500	8000
12	5	5	3	2015-05-15	2015-12-27	9000	bed	MOVE_OUT	6500	9000
13	20	20	11	2015-09-30	NULL	9500	bed	NULL	6500	9500
14	6	6	8	2015-12-25	NULL	10200	room	NULL	10200	10200
15	17	17	14	2015-02-10	NULL	10500	room	NULL	10200	10500
16	2	2	2	2015-06-05	NULL	11000	room	NULL	10200	11000
17	12	12	15	2015-02-24	NULL	11000	room	NULL	10200	11000
18	13	13	12	2015-02-25	NULL	12000	room	NULL	10200	12000
19	3	3	4	2015-10-28	2016-11-28	12000	room	RENT_CHANGE	10200	12000
20	14	14	18	2016-01-07	2016-12-30	13500	room	MOVE_OUT	10200	13500

17.

```sql
17.
SELECT * ,FIRST_VALUE(RENT) OVER (PARTITION BY BED_TYPE ORDER BY rent ) FIRST_RENT,
LAST_value(rent) over (PARTITION BY BED_TYPE ORDER BY rent rows between unbounded preceding and unbounded following) last_rent
FROM tenancy_histories;
```

91 %

Results | Messages

	id	profile_id	house_id	move_in_date	move_out_date	rent	bed_type	move_out_reason	FIRST_RENT	last_rent
1	7	7	6	2015-11-20	NULL	6500	bed	NULL	6500	9500
2	15	15	13	2015-04-07	NULL	6500	bed	NULL	6500	9500
3	16	16	17	2015-04-23	NULL	6500	bed	NULL	6500	9500
4	8	8	7	2015-11-10	2016-12-31	7200	bed	MOVE_OUT	6500	9500
5	9	9	9	2015-10-15	NULL	7500	bed	NULL	6500	9500
6	10	10	10	2015-06-20	NULL	7500	bed	NULL	6500	9500
7	19	19	20	2015-09-26	NULL	7500	bed	NULL	6500	9500
8	1	1	5	2015-02-12	2016-04-30	7500	bed	MOVE_OUT	6500	9500
9	4	4	1	2015-04-26	NULL	8000	bed	NULL	6500	9500
10	11	11	19	2015-08-29	2016-06-14	8000	bed	INTERNAL_TRANSFER	6500	9500
11	18	18	16	2015-10-16	2016-09-04	8000	bed	MOVE_OUT	6500	9500
12	5	5	3	2015-05-15	2015-12-27	9000	bed	MOVE_OUT	6500	9500
13	20	20	11	2015-09-30	NULL	9500	bed	NULL	6500	9500
14	6	6	8	2015-12-25	NULL	10200	room	NULL	10200	13500
15	17	17	14	2015-02-10	NULL	10500	room	NULL	10200	13500
16	2	2	2	2015-06-05	NULL	11000	room	NULL	10200	13500
17	12	12	15	2015-02-24	NULL	11000	room	NULL	10200	13500
18	13	13	12	2015-02-25	NULL	12000	room	NULL	10200	13500
19	3	3	4	2015-10-28	2016-11-28	12000	room	RENT_CHANGE	10200	13500
20	14	14	18	2016-01-07	2016-12-30	13500	room	MOVE_OUT	10200	13500

18.

```sql
18.

select p.first_name,t.bed_type,p.city,T.RENT, rank() over (partition by city order by t.rent  DESC) rank,
FIRST_VALUE(RENT) OVER (PARTITION BY bed_type ORDER BY rent desc ) FIRST_RENT from profiles p inner join Tenancy_histories t
on p.profile_id= t.profile_id
```

1 %

Results | Messages

	first_name	bed_type	city	RENT	rank	FIRST_RENT
1	Karan	bed	Delhi	9500	3	9500
2	Tanvi	bed	Bangalore	9000	4	9500
3	Garima	bed	Bangalore	8000	5	9500
4	Prabhjot	bed	Delhi	8000	4	9500
5	Deepa	bed	Pune	8000	3	9500
6	Shivshankar	bed	Pune	7500	4	9500
7	Aditi	bed	Pune	7500	4	9500
8	Ankita	bed	Delhi	7500	5	9500
9	anusha	bed	Bangalore	7500	6	9500
10	Tushar	bed	Pune	7200	6	9500
11	Kamal	bed	Bangalore	6500	7	9500
12	Shivani	bed	Delhi	6500	6	9500
13	Rajan	bed	delhi	6500	6	9500
14	Manisha	room	Delhi	13500	1	13500
15	Mitali	room	Pune	12000	1	13500
16	Bhaskar	room	Bangalore	12000	1	13500
17	Ashish	room	Bangalore	11000	2	13500
18	Umang	room	Pune	11000	2	13500
19	Roosena	room	Delhi	10500	2	13500
20	Harish	room	Bangalore	10200	3	13500

19.what is happening =avg of 3 only like 10333=(10166+9250+7500)/3 and
9666=(10333+10166+9250)/3 and so on……… u can do more like 4 avg ,5 avg by changing 3
preceding and 4 preceding …………

```
19.

select p.first_name,p.city,T.RENT, avg(rent) over (order by city  rows between 2 preceding and current row) as three_day_moving_average,
avg(rent) over (order by city  rows between 6 preceding and current row) as seven_day_moving_average
from profiles p inner join Tenancy_histories t on p.profile_id= t.profile_id
```

91 %

Results | **Messages**

	first_name	city	RENT	three_day_moving_average	seven_day_moving_average
1	anusha	Bangalore	7500	7500	7500
2	Ashish	Bangalore	11000	9250	9250
3	Bhaskar	Bangalore	12000	10166	10166
4	Garima	Bangalore	8000	10333	9625
5	Tanvi	Bangalore	9000	9666	9500
6	Harish	Bangalore	10200	9066	9616
7	Kamal	Bangalore	6500	8566	9171
8	Manisha	Delhi	13500	10066	10028
9	Shivani	Delhi	6500	8833	9385
10	Rajan	delhi	6500	8833	8600
11	Roosena	Delhi	10500	7833	8957
12	Prabhjot	Delhi	8000	8333	8814
13	Ankita	Delhi	7500	8666	8428
14	Karan	Delhi	9500	8333	8857
15	Tushar	Pune	7200	8066	7957
16	Shivshankar	Pune	7500	8066	8100
17	Aditi	Pune	7500	7400	8242
18	Deepa	Pune	8000	7666	7885
19	Umang	Pune	11000	8833	8314
20	Mitali	Pune	12000	10333	8957

20.

```
20.

----how to get sum of two column if have null value in it........

select sum(isnull(yrs_experience,0)) total from employment_details;
```

0 %

Results | **Messages**

	total
1	26

22.

```
22.

create table details
(timing1 time, timing2 time);

insert into details(timing1,timing2)
values ('10:50:00', '12:30:00'),
('12:30:00','12:35:00'),
('05:45:00','05:44:00');

select * , datediff(second,timing1,timing2) time_diff_sec, datediff(second,timing1,timing2)/3600 hr,
datediff(second,timing1,timing2)%3600 remaining_sec_formin, (datediff(second,timing1,timing2)%3600)/60 minutes from details;
```

0 %

Results | **Messages**

	timing1	timing2	time_diff_sec	hr	remaining_sec_formin	minutes
1	10:50:00.0000000	12:30:00.0000000	6000	1	2400	40
2	12:30:00.0000000	12:35:00.0000000	300	0	300	5
3	05:45:00.0000000	05:44:00.0000000	-60	0	-60	-1

21.

```sql
select *,CASE WHEN yrs_experience is null then 0 else yrs_experience end  as  yrs_experience_new from employment_details;
```

id	profile_id	latest_employer	official_mail_id	yrs_experience	occupational_category	yrs_experience_new
1	1	Sabre	mehdi.hasan@sabre.com	1	Working	1
2	2	hindustan unilever	rags.ramgas@gmail.com	2	Working	2
3	3	Technicolor	jigna.thacker@technicolor.com	1	Working	1
4	4	NULL	NULL	NULL	Student	0
5	5	GE Healthcare	ruchita.save@ge.com	3	Working	3
6	6	Aditya birla	shubhi.bajpai@adityabirla.com	3	Working	3
7	7	NULL	NULL	NULL	Student	0
8	8	NULL	NULL	NULL	Student	0
9	9	NULL	NULL	NULL	Student	0
10	10	huawei Technologies	gunjan19wadhwa@gmail.com	4	Working	4
11	11	NULL	NULL	NULL	Student	0
12	12	Centurylink India	PreetInder.Sodhi@centurylink.com	2	Working	2
13	13	SAP Labs India	udit.singh@sap.com	2	Working	2
14	14	NestAway	deepak@nestaway.com	1	Working	1
15	15	NULL	NULL	NULL	Student	0
16	16	NULL	NULL	NULL	Student	0
17	17	Microsoft	t-akmeh@microsoft.com	2	Working	2
18	18	Cognizant	bhavranjan.pandey@cognizant.com	2	Working	2
19	19	NULL	NULL	NULL	Student	0
20	20	Tiny Mogul Games	sanchit@hike.in	3	Working	3

23.

```sql
select string_agg( first_name ,',') summary from profiles;

select concat(first_name,'-',city) detail from profiles

select string_agg(detail,';') summary from
  (select concat(first_name,'-',city) detail from profiles ) a ;

select gender,string_agg(detail,';') summary from
  (select gender,concat(first_name,'-',city) detail from profiles ) a group by gender;
```

	summary
1	anusha,Ashish,Bhaskar,Garima,Tanvi,Harish,Kamal,...

	detail
1	anusha-Bangalore
2	Ashish-Bangalore
3	Bhaskar-Bangalore
4	Garima-Bangalore
5	Tanvi-Bangalore
6	Harish-Bangalore
7	Kamal-Bangalore
8	Tushar-Pune

	summary
1	anusha-Bangalore;Ashish-Bangalore;Bhaskar-Bangal...

	gender	summary
1	F	Garima-Bangalore;Tanvi-Bangalore;anusha-Bangalor...
2	M	Karan-Delhi;Prabhjot-Delhi;Rajan-delhi;Umang-Pune;...

24.

```
24.

recursive:

select datename(dw,1);

with cte_numbers(n,weekday)
as ( select 0,datename(dw,0)
union all select n + 1, datename(dw, n + 1)
from cte_numbers where n < 6)

select weekday from cte_numbers;
```

Results | Messages

(No column name)
Tuesday

weekday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday

25.

```
25.

create table orders(order_id char(15),product_id char(15),quantity int);
insert into orders values('odr1','prd1',5),('odr2','prd2',1),('odr3','prd3',3);

with cte as (
select order_id,product_id,quantity from orders union all
select order_id,product_id,quantity-1 from cte where quantity >= 2)

select order_id,product_id,quantity from cte;
```

Results | Messages

	order_id	product_id	quantity
1	odr1	prd1	5
2	odr2	prd2	1
3	odr3	prd3	3
4	odr3	prd3	2
5	odr3	prd3	1
6	odr1	prd1	4
7	odr1	prd1	3
8	odr1	prd1	2
9	odr1	prd1	1

26.

```sql
26.
with cte as (
select order_id,product_id,quantity from orders union all
select order_id,product_id,quantity-1 from cte where quantity >= 2)

 select order_id,product_id,count(quantity) cnt from (
select * from cte) a group by order_id,product_id;
```

90 % ▾ ◀

⊞ Results 📄 Messages

	order_id	product_id	quantity
1	odr1	prd1	5
2	odr2	prd2	1
3	odr3	prd3	3
4	odr3	prd3	2
5	odr3	prd3	1
6	odr1	prd1	4
7	odr1	prd1	3
8	odr1	prd1	2
9	odr1	prd1	1