

Postgres Assignment

```
postgres=# create database assign1;  
CREATE DATABASE
```

```
postgres=# \c assign1;  
You are now connected to database "assign1" as user "postgres".
```

```
assign1=# create table users(userid int primary key not null, first_name text not null, last_name text,  
address text, mobile text[], email text, username text, password text);  
CREATE TABLE
```

```
assign1=# create table referral(referralid int primary key not null, referral_first_name text not null,  
referral_last_name text, mobile text[], email text, date_of_referral date, referral_points int, status  
bool);  
CREATE TABLE
```

```
assign1=# alter table referral add userid int references users(userid);  
ALTER TABLE
```

```
assign1=# create table customer(customerid int primary key not null, first_name text not null, last_name  
text, mobile text[], email text);  
CREATE TABLE
```

```
assign1=# create table buying_details(userid int not null, purchase_date date, product_name text);  
CREATE TABLE
```

```
assign1=# alter table buying_details add customerid int references customer(customerid);  
ALTER TABLE
```

```
assign1=# \dt;
```

```
      List of relations
Schema |      Name      | Type  | Owner
-----+-----+-----+-----
public | buying_details | table | postgres
public | customer       | table | postgres
public | referral       | table | postgres
public | users          | table | postgres
(4 rows)
```

```
assign1=# insert into users values(1,'Saurabh','Agrawal','B-202,Goodwill
Breeza','{7870019379,9361039897}','agrawalsaurabh2000@gmail.com','saurav01','password2001'),
(2,'Shivam','Agrawal','Sharan
Hermitage','{7879516031,9999888776}','agrawalshivam@gmail.com','shivamchu','password');
INSERT 0 2
```

```
assign1=# insert into users values(4,'Pratham','Gupta','Sharan
Hermitage','{6666666666,7777777777}','pratham@gmail.com','prathamwho','theleader'),(3,'Sumit','Kulhara','
Sharan Hermitage','{9999999999,88888
88888}','sumit@gmail.com','sumitsubmits','finserv@2023'), (5,'Shakshi','Suman','Rajiv
Nagar','{7667998791,7303194998}','suman.shakshi10@gmail.com','shakshi_suman','shakshi@99');
INSERT 0 3
```

```
assign1=# select * from users;
```

```
userid | first_name | last_name |      address      |      mobile      |      email      |      username      |      password
-----+-----+-----+-----+-----+-----+-----+-----
1 | Saurabh   | Agrawal   | B-202,Goodwill Breeza | {7870019379,9361039897} | agrawalsaurabh2000@gmail.com | saurav01           | password2001
2 | Shivam    | Agrawal   | Sharan Hermitage    | {7879516031,9999888776} | agrawalshivam@gmail.com      | shivamchu          | password
3 | Pratham   | Gupta     | Sharan Hermitage    | {6666666666,7777777777} | pratham@gmail.com            | prathamwho         | theleader
4 | Sumit     | Kulhara   | Sharan Hermitage    | {9999999999,8888888888} | sumit@gmail.com              | sumitsubmits       | finserv@2023
5 | Shakshi   | Suman     | Rajiv Nagar         | {7667998791,7303194998} | suman.shakshi10@gmail.com    | shakshi_suman      | shakshi@99
(5 rows)
```

```

assign1=# insert into referral
values(4,'Shivam','Agrawal','{7879516031,9999888776}','agrawalshivam@gmail.com','2023-01-
03',7,false,2),(5,'Saurabh','Agrawal','{7870019379,9361039897}','agrawalsaurabh2000@gmail.com','2023-01-
10',30,true,1),(2,'Pratham','Gupta','{6666666666,7777777777}','pratham@gmail.com','2023-01-
08',12,false,4),(3,'Sumit','Kulhara','{9999999999,8888888888}','sumit@gmail.com','2023-01-
15',10,true,3),(1,'Shakshi','Suman','{7667998791,7303194998}','suman.shakshi10@gmail.com','2023-01-
17',25,true,5),(7,'Saurabh','Agrawal','{7870019379,9361039897}','agrawalsaurabh2000@gmail.com','2023-
01-20',21,true,1);
INSERT 0 6

```

```

assign1=# select * from referral;

```

referralid	referral_first_name	referral_last_name	mobile	email	date_of_referral	referral_points	status	userid
4	Shivam	Agrawal	{7879516031,9999888776}	agrawalshivam@gmail.com	2023-01-03	7	f	2
5	Saurabh	Agrawal	{7870019379,9361039897}	agrawalsaurabh2000@gmail.com	2023-01-10	30	t	1
2	Pratham	Gupta	{6666666666,7777777777}	pratham@gmail.com	2023-01-08	12	f	4
1	Shakshi	Suman	{7667998791,7303194998}	suman.shakshi10@gmail.com	2022-09-21	25	t	5
7	Saurabh	Agrawal	{7870019379,9361039897}	agrawalsaurabh2000@gmail.com	2023-01-20	21	t	1
3	Sumit	Kulhara	{9999999999,8888888888}	sumit@gmail.com	2023-01-15	10	t	3

(6 rows)

```

assign1=# insert into customer values(1, 'Saurabh',
'Agrawal','{7870019379,9361039897}','agrawalsaurabh2000@gmail.com'), (2, 'Pratham',
'Gupta','{6666666666,7777777777}','pratham@gmail.com'),(3, 'Sumit',
'Kulhara','{9999999999,8888888888}','sumit@gmail.com'),(4, 'Shakshi',
'Suman','{7667998791,7303194998}','suman.shakshi10@gmail.com'),(5, 'Shivam',
'Agrawal','{7879516031,9999888776}','agrawalshivam@gmail.com');
INSERT 0 5

```

```

assign1=# select * from customer;

```

customerid	first_name	last_name	mobile	email
1	Saurabh	Agrawal	{7870019379,9361039897}	agrawalsaurabh2000@gmail.com
2	Pratham	Gupta	{6666666666,7777777777}	pratham@gmail.com
3	Sumit	Kulhara	{9999999999,8888888888}	sumit@gmail.com
4	Shakshi	Suman	{7667998791,7303194998}	suman.shakshi10@gmail.com
5	Shivam	Agrawal	{7879516031,9999888776}	agrawalshivam@gmail.com

```

assign1=# insert into buying_details values(1,'2023-01-11','Fridge',1),(2,'2023-01-04','Shoes',5),(3,'2023-01-16','Laptop',3),(4,'2023-01-09','Watch',2),(5,'2023-01-18','Iphone 14',4),(2,'2022-09-21','Iphone 14',5);
INSERT 0 6

```

```

assign1=# select * from buying_details;

```

userid	purchase_date	product_name	customerid
1	2023-01-11	Fridge	1
2	2023-01-04	Shoes	5
3	2023-01-16	Laptop	3
4	2023-01-09	Watch	2
5	2023-01-18	Iphone 14	4
2	2022-09-21	Iphone 14	5

(6 rows)

Q1-

```

assign1=# select count(*) from referral where userid=1;

```

count
2

(1 row)

```

assign1=# select count(*) from referral where userid=2;

```

count
1

(1 row)

```

assign1=# select count(*) from referral where userid=3;

```

count
1

(1 row)

```
assign1=# select count(*) from referral where userid=4;
```

```
count
-----
      1
(1 row)
```

```
assign1=# select count(*) from referral where userid=5;
```

```
count
-----
      1
(1 row)
```

Q2-

```
assign1=# select sum(referral_points) from referral;
```

```
sum
-----
  105
(1 row)
```

Q3-

```
assign1=# SELECT first_name, last_name FROM users INNER JOIN buying_details ON
users.userid=buying_details.userid WHERE purchase_date='2022-09-21';
```

```
first_name | last_name
-----+-----
Shivam     | Agrawal
(1 row)
```

Q4-

```
assign1=# SELECT * FROM customer INNER JOIN buying_details ON customer.customerid = buying_details.customerid
WHERE product_name='Iphone 14';
```

customerid	first_name	last_name	mobile	email	userid	purchase_date	product_name	customerid
4	Shakshi	Suman	{7667998791,7303194998}	suman.shakshi10@gmail.com	5	2023-01-18	Iphone 14	4
5	Shivam	Agrawal	{7879516031,9999888776}	agrawalshivam@gmail.com	2	2022-09-21	Iphone 14	5

(2 rows)

Q5-

assign1=# DELETE FROM customer WHERE customerid IN (SELECT customerid FROM buying_details WHERE product_name='Iphone 14');

Q6-

assign1=# CREATE VIEW userView AS (SELECT first_name, last_name, mobile, email FROM users);
CREATE VIEW

assign1=# SELECT * FROM UserView ORDER BY email;

first_name	last_name	mobile	email
Saurabh	Agrawal	{7870019379,9361039897}	agrawalsaurabh2000@gmail.com
Shivam	Agrawal	{7879516031,9999888776}	agrawalshivam@gmail.com
Pratham	Gupta	{6666666666,7777777777}	pratham@gmail.com
Shakshi	Suman	{7667998791,7303194998}	suman.shakshi10@gmail.com
Sumit	Kulhara	{9999999999,8888888888}	sumit@gmail.com

(5 rows)

assign1=#

assign1=# SELECT * FROM UserView ORDER BY mobile;

first_name	last_name	mobile	email
Pratham	Gupta	{6666666666,7777777777}	pratham@gmail.com
Shakshi	Suman	{7667998791,7303194998}	suman.shakshi10@gmail.com
Saurabh	Agrawal	{7870019379,9361039897}	agrawalsaurabh2000@gmail.com
Shivam	Agrawal	{7879516031,9999888776}	agrawalshivam@gmail.com
Sumit	Kulhara	{9999999999,8888888888}	sumit@gmail.com

(5 rows)

```
assign1=# explain SELECT * FROM UserView ORDER BY mobile;  
          QUERY PLAN
```

```
-----  
Sort  (cost=25.93..26.70 rows=310 width=128)  
  Sort Key: users.mobile  
    -> Seq Scan on users  (cost=0.00..13.10 rows=310 width=128)  
(3 rows)
```