

## Question

DPhone corporation is telecommunications industry wants to develop software for there new upcoming phone. They came to your company. You as team member have responsibility to develop this standalone application. They having following requirements.

1. User can register and login
2. User can give referral for phone from their family or friends.
3. If user referral buy mobile the user will get 1000 bonus points. 1point is equal to 1Rs.
4. User can view referral, edit referral, delete referral.

In this you as team member have to design database.

Create following tables

User(userid,first name,last name, address, mobile, email, username, password)

Referral( referralId, referral First name, referral last name, mobile, email, userId(fk), date of referral, referral points, status)

Customer(custermerId, first name, last name, email, mobile)

BuyingDetails( custermerId(fk),userId,purchase date, productName)

Insert 5 records in each table and write Sqlqueries for following operations.

1. Display total number of referral done by particular user by userId.
2. Display total number of points earned by user
3. Display name and mobile of user whose referral customer have purchased item on 21/09/2022
4. Display details of customer who purchased "iPhone 14"
5. delete all record of customer including purchase details Those have purchased iPhone 14.
15. Write userview to display only first name, last name, mobile and email.  
And

Perform following queries on view

- Display record by email
- Display record by mobile

## -----SOLUTION-----

\*\*\*Creating and connecting to database

```
postgres=# CREATE DATABASE DPhone;
CREATE DATABASE
postgres=# \c dphone
You are now connected to database "dphone" as user "postgres".
```

\*\*\*Creating tables

```
dphone=# CREATE TABLE User1(
dphone(# userid INT PRIMARY KEY,
dphone(# first_name TEXT,
dphone(# last_name TEXT,
dphone(# address TEXT NOT NULL,
dphone(# mobile INT NOT NULL,
dphone(# email TEXT,
dphone(# username TEXT NOT NULL,
dphone(# password TEXT NOT NULL
dphone(# );
CREATE TABLE
```

```
dphone=# CREATE TABLE Referral(
dphone(# referralID INT PRIMARY KEY,
dphone(# First_name TEXT,
dphone(# referral_last_name TEXT,
dphone(# mobile INT NOT NULL,
dphone(# email TEXT NOT NULL,
dphone(# userID INT,
dphone(# date_of_referral DATE,
dphone(# referral_points INT,
dphone(# status TEXT,
dphone(# FOREIGN KEY(userID) REFERENCES User1(userID));
CREATE TABLE
```

```
dphone=# CREATE TABLE Customer(
dphone(# customerID INT PRIMARY KEY,
```

```

dphone(# First_name TEXT,
dphone(# Last_name TEXT,
dphone(# email TEXT NOT NULL,
dphone(# mobile INT NOT NULL
dphone(# );
CREATE TABLE

```

```

dphone=# CREATE TABLE BuyingDetails(
dphone(# customerID INT,
dphone(# userid INT,
dphone(# purchase_date DATE,
dphone(# product_name TEXT NOT NULL,
dphone(# FOREIGN KEY(customerID) REFERENCES Customer(customerID),
dphone(# FOREIGN KEY(userid) REFERENCES User1(userid)
dphone(# );
CREATE TABLE

```

### \*\*\*Inserting values into tables

```

dphone=# INSERT INTO User1 VALUES
dphone-# (1,'rahul','varma','Andra Pradesh', 63009, 'rahul@gmail.com',
'rahulvarma','rahulpwd'),
dphone-# (2,'sameer','shaik','Mumbai', 78963, 'sameer@gmail.com',
'sameershaik','sameerpwd'),
dphone-# (3,'hara','teja','Banglore',89652, 'harateja@gmail.com', 'harateja',
'haratejapwd'),
dphone-# (4,'uttej','sai','Kerala',99656, 'uttejsai@gmail.com', 'uttejsai',
'uttejpwd'),
dphone-# (5,'Vikyanth','Ms','TamilNadu',79626, 'vikyanth@gmail.com',
'vikyanth', 'vikyanthpwd');
INSERT 0 5

```

```

dphone=# INSERT INTO Referral VALUES
dphone-# (101, 'ankit', 'lal', 45621, 'ankitlal@gmail.com', 1,
'2022-09-21',1000,'done'),
dphone-# (102, 'suman', 'singh', 99221, 'sumansingh@gmail.com', 1,
'2022-05-23',1000,'pending'),
dphone-# (103, 'sachin', 'ten', 65251, 'sachin@gmail.com', 3,
'2022-09-21',1000,'pending'),
dphone-# (104, 'DHONI', 'MS', 83261, 'dhoni@gmail.com', 4,
'2022-02-17',1000,'done'),
dphone-# (105, 'Virat', 'Kohli', 93564, 'kohli@gmail.com', 5,
'2022-07-05',1000,'done');
INSERT 0 5

```

```
dphone=# INSERT INTO Customer VALUES
dphone-# (1001, 'Virat', 'Kohli', 'kohli@gmail.com', 93564),
dphone-# (1002, 'DHONI', 'MS', 'dhoni@gmail.com', 83261),
dphone-# (1003, 'ankit', 'lal', 'ankitlal@gmail.com', 45621),
dphone-# (1004, 'rick', 'roll', 'rick@gmail.com', 84856),
dphone-# (1005, 'odin', 'rock', 'odin@gmail.com', 56485);
INSERT 0 5
```

```
dphone=# INSERT INTO BuyingDetails VALUES
dphone-# (1001,5,'2022-09-21','Iphone 14'),
dphone-# (1002,4,'2022-09-21','Iphone 14 pro'),
dphone-# (1003,1,'2022-07-04','Iphone 14'),
dphone-# (1004,1,'2022-11-05','Television'),
dphone-# (1005,3,'2022-04-18','AC');
```

### \*\*\*Queries

#### 1.Display total number of referral done by particular user by userID.

```
dphone=# SELECT U.userid, U.first_name, U.last_name, COUNT(R.userid)
FROM User1 U INNER JOIN Referral R ON U.userid=R.userid GROUP BY
u.userID;
```

userid	first_name	last_name	count
5	Vikyanth	Ms	1
4	uttej	sai	1
1	rahul	varma	2
3	hara	teja	1

(4 rows)

#### 2.Display total number of points earned by user.

```
dphone=# SELECT U.userid, U.first_name, U.last_name,
SUM(referral_points) FROM User1 U INNER JOIN Referral R ON
U.userid=R.userid GROUP BY u.userID;
```

userid	first_name	last_name	sum
5	Vikyanth	Ms	1000
4	uttej	sai	1000
1	rahul	varma	2000

```
3 | hara      | teja      | 1000
(4 rows)
```

### 3.Display name and mobile of user whose referral customer have purchased item on 21/09/2022

```
dphone=# SELECT first_name,last_name, mobile FROM User1 WHERE
userid IN (SELECT userid FROM BuyingDetails WHERE
purchase_date='2022-09-21');
```

```
first_name | last_name | mobile
-----+-----+-----
uttej      | sai      | 99656
Vikyanth   | Ms       | 79626
(2 rows)
```

### 4.Display details of customer who purchased “iPhone 14”

```
dphone=# SELECT * FROM Customer C INNER JOIN BuyingDetails B ON
C.customerID =B.customerID WHERE product_name='Iphone 14';
```

```
customerid | first_name | last_name | email      | mobile | customerid |
userid | purchase_date | product_name
-----+-----+-----+-----+-----+-----+-----
+-----+-----+-----+-----+-----+-----+-----
1001 | Virat      | Kohli     | kohli@gmail.com | 93564 | 1001 | 5 |
2022-09-21 | Iphone 14
1003 | ankit      | lal       | ankitlal@gmail.com | 45621 | 1003 | 1 |
2022-07-04 | Iphone 14
(2 rows)
```

### 5.delete all record of customer including purchase details Those have purchased iPhone 14.

```
dphone=# SELECT * FROM Customer;
customerid | first_name | last_name | email      | mobile
-----+-----+-----+-----+-----+-----
1001 | Virat      | Kohli     | kohli@gmail.com | 93564
1002 | DHONI      | MS        | dhoni@gmail.com | 83261
1003 | ankit      | lal       | ankitlal@gmail.com | 45621
1004 | rick       | roll      | rick@gmail.com | 84856
```

```
1005 | odin | rock | odin@gmail.com | 56485
(5 rows)
```

????????????????

```
dphone=# DELETE Customer,BuyingDetails FROM Customer C INNER JOIN
BuyingDetails B ON C.customerID=B.customerID WHERE
product_name='Iphone 14';
ERROR: syntax error at or near "Customer"
```

## 5. Write userview to display only first name, last name, mobile and email. And

Perform following queries on view

- Display record by email
- Display record by mobile

```
dphone=# CREATE VIEW userview AS SELECT first_name, last_name,
mobile, email FROM User1;
```

```
CREATE VIEW
```

```
dphone=# SELECT * FROM userview;
```

```
first_name | last_name | mobile | email
-----+-----+-----+-----
rahul | varma | 63009 | rahul@gmail.com
sameer | shaik | 78963 | sameer@gmail.com
hara | teja | 89652 | harateja@gmail.com
uttej | sai | 99656 | uttejsai@gmail.com
Vikyanth | Ms | 79626 | vikyanth@gmail.com
(5 rows)
```

```
dphone=# SELECT * FROM userview WHERE email='rahul@gmail.com' OR
email='sameer@gmail.com';
```

```
first_name | last_name | mobile | email
-----+-----+-----+-----
rahul | varma | 63009 | rahul@gmail.com
sameer | shaik | 78963 | sameer@gmail.com
(2 rows)
```

```
dphone=# SELECT * FROM userview WHERE mobile IN (63009,
89652,79626);
```

```
first_name | last_name | mobile | email
-----+-----+-----+-----
```

rahul		varma		63009		rahul@gmail.com
hara		teja		89652		harateja@gmail.com
Vikyanth		Ms		79626		vikyanth@gmail.com

(3 rows)