

IMPLEMENTATION OF CODE

```
create table mobile(mobileno number(15) primary key, simcompany  
char(15),state char(15));
```

```
create table aadhar(aadharno number(15) primary key,firstname  
char(15),lastname char(15), gender char(15),address char(15),dob  
date,age number(15))
```

```
create table mobilelink(mobileno number(15) references  
mobile(mobileno),aadharno number(15) references  
aadhar(aadharno),primary key(mobileno,aadharno))
```

```
create table bank(bankname char(15) primary key);
```

```
create table branchadd(branchname char(15) primary key,address  
char(15));
```

```
create table bankbranch(ifsc code char(15) primary key,branchname  
char(15) references branchadd(branchname));
```

```
create table branches(ifsc code char(15) references  
bankbranch(ifsc code),bankname char(15) references  
bank(bankname),primary key(ifsc code,bankname))
```

```
create table account(accountno number(15) primary key,accholder  
char(15),balance number(15))
```

```
create table accountlink(accountno number(15) references  
account(accountno),aadharno number(15) references  
aadhar(aadharno),primary key(accountno,aadharno))
```

```
create table accounts(ifsc code char(15) references  
bankbranch(ifsc code),accountno number(15) references  
account(accountno), primary key(ifsc code,accountno));
```

```
create table saving(aaccountno number(15) primary key,interest rate  
number(15));
```

```
create table current1(aaccountno number(15) primary key,current rate  
number(15));
```

```
create table familydetails(aadharno number(15) primary  
key,family income number(15),total members  
number(15),main occupation char(15));
```

```
create table propertydetails(aadharno number(15) references  
familydetails(aadharno),property char(15));
```

mobile

```
insert into mobile values(9799670662,'airtel','up')
```

```
insert into mobile values(9799650661,'airtel','punjab')
```

```
insert into mobile values(9899650661,'vodafone','rajasthan')
```

```
insert into mobile values(9499650676,'bsnl','ap')
```

```
insert into mobile values(9599650676,'idea','mp')
```

aadhar

insert into aadhar

values(322112345450,'himanshu','amethia','male','gorakhpur',(TO_DATE('22/April/2011','DD/MON/YY')),18)

insert into aadhar

values(312112345450,'himanshu','jain','male','hissar',(TO_DATE('21/April/1998','DD/MON/YY')),19)

insert into aadhar

values(242112345450,'himanshu','sharma','male','kota',(TO_DATE('25/April/1998','DD/MON/YY')),19)

insert into aadhar

values(142112345450,'anurag','kamboj','male','jagadhri',(TO_DATE('25/April/1996','DD/MON/YY')),20)

insert into aadhar

values(562112345450,'hk','amethia','male','jaipur',(TO_DATE('25/march/1996','DD/MON/YY')),20)

mobile link

insert into mobilelink values(9799670662,322112345450)

insert into mobilelink values(9799650661,322112345450)

insert into mobilelink values(9899650661,312112345450)

insert into mobilelink values(9499650676,242112345450)

insert into mobilelink values(9599650676,142112345450)

insert into mobilelink values(9599650676,562112345450)

bank

insert into bank values('hdfc')

insert into bank values('icici')

insert into bank values('sbi')

insert into bank values('bandhan')

insert into bank values('pnb')

branchadd

insert into branchadd values('fatehabad','modeltown')

insert into branchadd values('faridabad','anaj mandi')

insert into branchadd values('patiala','22 no.')

insert into branchadd values('ambala','new market')

insert into branchadd values('jagadhri','old market')

bankbranch

insert into bankbranch values('punb0019100','fatehabad')

insert into bankbranch values('hdfc0000116','faridabad')

insert into bankbranch values('icici00001','patiala')

insert into bankbranch values('bdb10001014','ambala')

insert into bankbranch values('sbin0003897','jagadhri')

branches

insert into branches values('punb0019100','pnb')

insert into branches values('hdfc0000116','hdfc')

insert into branches values('icici00001','icici')

insert into branches values('bdb10001014','bandhan')

insert into branches values('sbin0003897','sbi')

account

insert into account values('00987654321','himanshujain',1500)

insert into account values('00987654320','himanshujain',15000)

insert into account values('00987654323','anuragkamboj',10)

insert into account values('00987654324','himanshuamethia',20)

insert into account values('00987654325','himanshusharma',200000)

accountlink

insert into accountlink values('00987654321',322112345450)

insert into accountlink values('00987654320',322112345450)

insert into accountlink values('00987654323',312112345450)

insert into accountlink values('00987654324',242112345450)

insert into accountlink values('00987654325',142112345450)

accounts

insert into accounts values('punb0019100',00987654321)

insert into accounts values('hdfc0000116',00987654320)

insert into accounts values('icici00001',00987654323)

insert into accounts values('bdb10001014',00987654324)

insert into accounts values('sbin0003897',00987654325)

saving

insert into saving values(00987654321,8)

insert into saving values(00987654320,10)

insert into saving values(00987654323,10)

insert into saving values(00987654324,9)

insert into saving values(00987654325,9)

current

insert into current1 values(00987654321,7)

insert into current1 values(00987654320,8)

insert into current1 values(00987654323,8)

insert into current1 values(00987654324,9)

insert into current1 values(00987654325,9)

family detail

insert into familydetails values(322112345450,500000,7,'agriculture')

insert into familydetails values(312112345450,1000000,7,'buisness')

insert into familydetails values(242112345450,100000,8,'govtemployee')

insert into familydetails values(142112345450,100000,8,'teaching')

insert into familydetails

values(562112345450,700000,8,'propertydealer')

property details

insert into propertydetails values(322112345450,'residential')

insert into propertydetails values(322112345450,'apartment')

insert into propertydetails values(242112345450,'apartment')

insert into propertydetails values(242112345450,'farm')

insert into propertydetails values(562112345450,'townhouse')

.....end.....

PL/SQL CODES

PROCEDURES AND FUNCTIONS

PROCEDURE

IT is a subprogram that can accept parameters perform on action and return parameters.

IT is of types:-

1. Local procedure
2. stored procedure

STORED PROCEDURE-

1-

```
CREATE PROCEDURE show_balance (account_no NUMBER, balan  
out NUMBER)
```

```
AS
```

```
BEGIN
```

```
SELECT balance INTO balan FROM account WHERE accountno =  
account_no;
```

```
END;
```

```
CALLING PROCEDURE SHOW_BALANCE////////
```

```
/* IT WILL SHOW BALANCE OF A PARTICULAR ACCOUNT */
```

```
DECLARE
```

```
bal number;
```

```
BEGIN
```

```
show_balance(:accno, bal);
```

```
dbms_output.put_line(bal);
```

```
END;
```

2-

```
CREATE PROCEDURE close_account (account_no NUMBER)
AS
BEGIN
DELETE FROM account WHERE accountno = account_no;
END;
```

CALLING PROCEDURE CLOSE_ACCOUNT////////////////////////////////////

/* IT WILL CLOSE THE PARTICULAR ACCOUNT*/

```
DECLARE
e number;
BEGIN
e:= :ACCOUNTNO;
close_account(e);
END;
```

////////////////////////////////////

LOCAL PROCEDURE-

3-

```
DECLARE
PROCEDURE insertd(accountno number,accholder char,balance
number)
AS
BEGIN
INSERT INTO account values(accountno,accholder,balance);
END;
BEGIN
insertd(:accn,:accholder,:balance);
END;
```

/* USE TO INSERT VALUE*/

.....////////////////////////////////.....

END OF PROCEDURES...

TRIGGERS WITH EXCEPTION HANDLING:

A database trigger is a stored procedure that is fired when an INSERT, UPDATE, or DELETE statements is issued against the associate table.

1-

```
CREATE OR REPLACE TRIGGER PRIMARY_KEY
BEFORE INSERT ON account
FOR EACH ROW
DECLARE
a account.accountno%TYPE;
BEGIN
IF (:NEW.accountno IS NULL) THEN
RAISE_APPLICATION_ERROR(-20002, 'PRIMARY KEY
VIOLATION
BECAUSE IT CANNOT BE NULL');
END IF;
SELECT accountno INTO a FROM account WHERE
accountno=:NEW.accountno;
RAISE_APPLICATION_ERROR(-20003, 'PRIMARY KEY
VIOLATION
BECAUSE IT SHOULD BE UNIQUE');
EXCEPTION
WHEN NO_DATA_FOUND THEN
NULL;
END;

/* PRIMARY KEY VIOLATION */
```

2-

```
CREATE OR REPLACE TRIGGER FOREIGN_KEY
BEFORE INSERT ON accountlink
FOR EACH ROW
DECLARE
aNum accountlink.accountno%TYPE;
BEGIN
SELECT accountno INTO aNum FROM accountlink WHERE
accountno=:NEW.accountno;
NULL;
EXCEPTION
WHEN NO_DATA_FOUND THEN
RAISE_APPLICATION_ERROR(-20004, 'FOREIGN KEY
VIOLATED
BECAUSE VALUE IS NOT FOUND IN THE PARENT TABLE');
END;

/* FOREIGN KEY VIOLATION*/
```

3-

```
CREATE OR REPLACE TRIGGER bank_UPDATE
AFTER UPDATE OF bankname ON bank FOR EACH ROW
BEGIN
DBMS_OUTPUT.PUT_LINE('OLD NAME: ' ||:OLD.BANKNAME);
DBMS_OUTPUT.PUT_LINE('NEW NAME:' ||:NEW.BANKNAME);
END
```

-----END-----

CURSORS

Cursor is a memory (work) area that a oracle engine uses for its internal processing for executing and storing the results of SQL statement, and this work area is reserved for SQL's operations also called Oracle's Private area or CURSOR .

1-TO SHOW HOW MANY MOBILENO ARE LINKED WITH AN AADHAR

```
DECLARE
CURSOR C1 IS SELECT mobileno FROM mobilelink WHERE
aadhar=322112345450;
REC C1%ROWTYPE;
BEGIN
OPEN C1;
LOOP
FETCH C1 INTO REC;
EXIT WHEN C1%NOTFOUND;
DBMS_OUTPUT.PUT_LINE('mobilenos'||REC.mobilenos);
END LOOP;
CLOSE C1;
END;
```

/* IT WILL TELL THAT WHICH MOBILW NO. IS LINKED WITH
A GIVEN MOBILE.NO */

OUTPUT OF ABOVE CODE

```
mobilenos 9799650661
mobilenos 9799670662
```

2-TO COUNT NO. OF ACCOUNT LINKED WITH GIVEN AADHAR CARD

```
DECLARE
N NUMBER;
BEGIN
DELETE from accountlink WHERE aadharno=:aadharno;
N:=SQL%ROWCOUNT;
DBMS_OUTPUT.PUT_LINE('TOTAL NUMBER OF account
FOUND' || N);
END;
```

/* IT WILL TELL THAT HOW MANY ACCOUNT NO.LINKED WITH GIVEN AADHAR NO.*/

3-TO SHOW THAT ACCOUNT IS EXIST IN TABLE OR NOT;

```
BEGIN
DELETE from accountlink WHERE accountno=:accountno;
IF SQL%NOTFOUND THEN
DBMS_OUTPUT.PUT_LINE('RECORD NOT found');
ELSE
DBMS_OUTPUT.PUT_LINE('RECORD found');
END IF;
END;
```

/* IT WILL TELL THAT WHETHER A PARICULAR ACCOUNT EXIST IN TABLE */