

## **SOLVED PROBLEMS (E-R) - Problem 2**

- The people's Bank offers five type of accounts: Loan, checking, premium savings, daily interest saving, and money market. It operates a number of branches and a client of bank can have any number of account. Accounts can be joint *i.e.*, more than one client may be able to operate a given account. Identify the entities of interest and show their attribute. What relationship exists among these entities? Draw the corresponding E-R diagram.

### The Entities are as follows:

- **Account** (Account-no, Account-type, Balance)
- **Branch** (Branch-ID, Branch-address, Branch-name)
- **Transaction** (Transaction-ID, Amount, Date, Type)
- **Client** (Account-No., Name, Age, Address)
- **Relationships** are Account-Branch, Account-Transaction, Account-Client.

SET SAFETY OFF

CLOSE DATABASES ALL

CLEAR

SET

CREATE DATABASE Problem2

\*Creates table account with primary key.

CREATE TABLE ACCOUNT ;

( Account\_no i PRIMARY KEY,;

Account\_type c(13),;

Balance n(10,2) )

DO APPEND\_REC1

\*Create table branch and relate it to the Account table

CREATE TABLE Branch ;

( Account\_no i,;

Branch\_ID i PRIMARY KEY, ;

Branch\_address c(20), ;

Branch\_nam c(13) UNIQUE, ;

FOREIGN KEY ACCOUNT\_NO TAG ACCOUNT\_NO REFERENCES ACCOUNT)

DO APPEND\_REC2

\*Create table Transaction branch and relate it to the Account table

```

CREATE TABLE Transaction ;
( Account_no i, ;
Transaction_ID c(10), ;
Amount n(10,2), ;
Date c(8), ;
Type c(13), ;
FOREIGN KEY ACCOUNT_NO TAG ACCOUNT_NO REFERENCES ACCOUNT)
DO APPEND_REC3

```

\* Create Table Client branch and relate it to the Account table

```

CREATE TABLE Client ;
( Account_no i, ;
Name c(20) UNIQUE, ;
Address c(20), ;
FOREIGN KEY ACCOUNT_NO TAG ACCOUNT_NO REFERENCES ACCOUNT)
DO APPEND_REC4

```

\* Display new database, tables, and relationships.

```

SELECT ACCOUNT
SET ORDER TO ACCOUNT_NO IN Branch && ACCOUNT_NO
SET ORDER TO ACCOUNT_NO IN Transaction && ACCOUNT_NO
SET ORDER TO ACCOUNT_NO IN Client && ACCOUNT_NO
SET RELATION TO Account_no INTO Branch
SET RELATION TO Account_no INTO Transaction ADDITIVE
SET RELATION TO Account_no INTO Client ADDITIVE
MODIFY DATABASE

```

\* Data Insertion in using Procedure

```

PROCEDURE APPEND_REC1 && SQL Command adding new records ACCOUNT

```

INSERT INTO ACCOUNT (Account\_no, Account\_type, Balance)VALUES (1789847403,"Loan" ,900.25)

INSERT INTO ACCOUNT (Account\_no, Account\_type, Balance)VALUES (1789841806,"checking" , 2500.45)

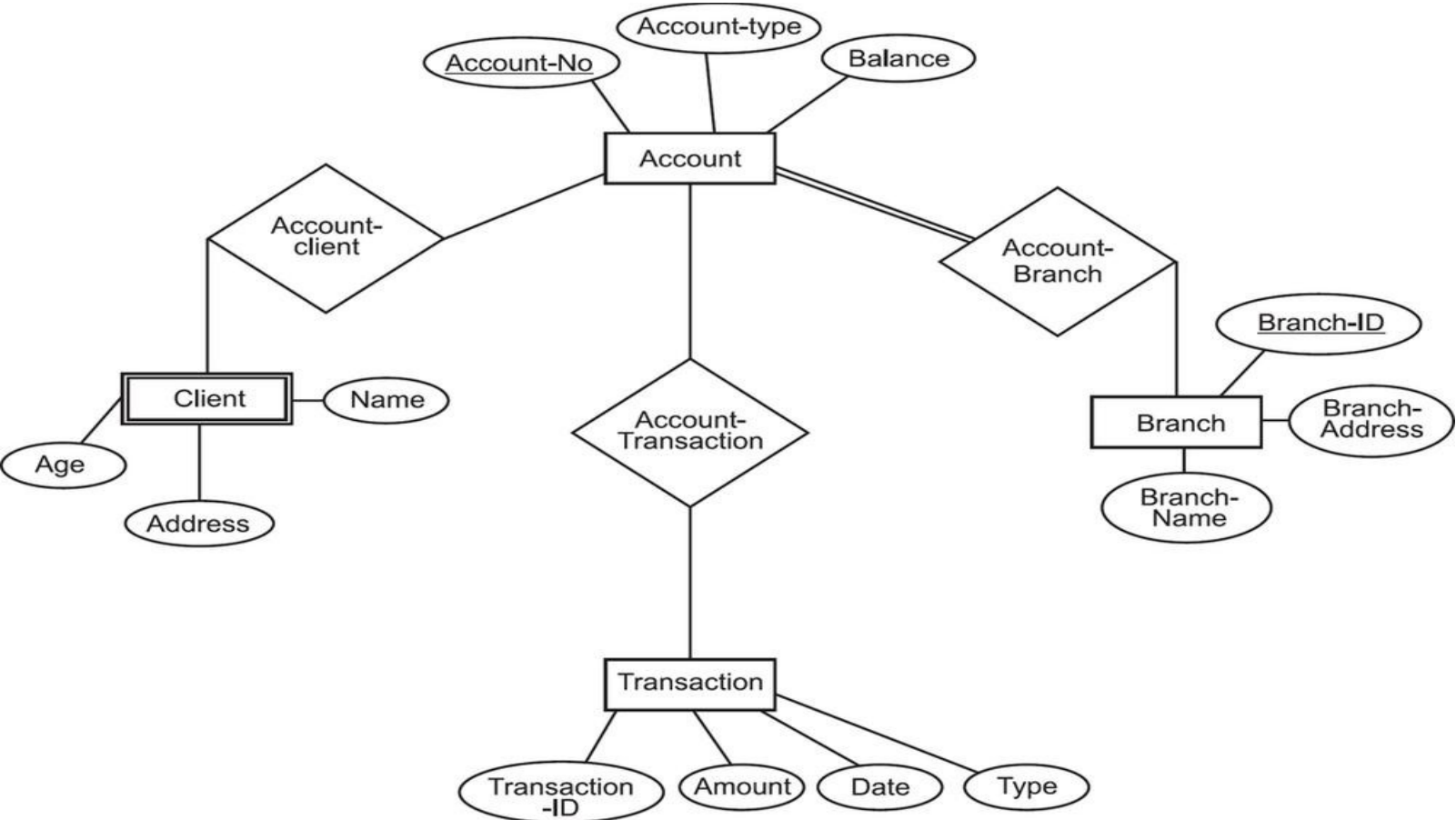
INSERT INTO ACCOUNT (Account\_no, Account\_type, Balance)VALUES (1789849658,"premium savings",4300.11)

INSERT INTO ACCOUNT (Account\_no, Account\_type, Balance)VALUES (1789849874," money market" , 6400.97)

BROWSE FONT 'sachith' LAST SAVE HYDEREBAD

RETURN

PROCEDURE APPEND\_REC2 && SQL Command adding new records Branch



INSERT INTO Branch(Account\_no,Branch\_ID,Branch\_address,Branch\_nam)VALUES (1789847403,1,"1845 Maple Av" ,"Maple")

INSERT INTO Branch (Account\_no,Branch\_ID,Branch\_address,Branch\_nam)VALUES (1789841806,2,"7777 Leesburg Pike","Tyson")

INSERT INTO Branch(Account\_no,Branch\_ID,Branch\_address,Branch\_nam)VALUES (1789849658,3,"1789 Main st" ,"Faifax")

```
INSERT INTO Branch                                VALUES (1789849874,4,"1956 Elden st" ,"Herndon")
BROWSE FONT 'Sachith' LAST SAVE HYDERABAD
RETURN
```

```
PROCEDURE APPEND_REC3 && SQL Command adding new records Transaction
```

```
INSERT INTO Transaction (Account_no, Transaction_ID, Amount,Date,type)VALUES
(1789847403,"T_1",200.15,"20160124","Credit card")
```

```
INSERT INTO Transaction (Account_no, Transaction_ID, Amount,Date,type)VALUES
(1789841806,"T_2",150.00,"20160218","Debit card")
```

```
INSERT INTO Transaction                                VALUES
(1789849658,"T_3",390.75,"20160110","Direct deposi")
```

```
INSERT INTO Transaction                                VALUES
(1789849874,"T_4",400.60,"20160114","Money back")
```

```
INSERT INTO Transaction (Account_no, Transaction_ID, Amount,Date,type)VALUES
(1789847403,"T_5",300.70,"20160124","Credit card")
```

```
INSERT INTO Transaction (Account_no, Transaction_ID, Amount,Date,type)VALUES
(1789847403,"T_6",400.00,"20160124","Credit card")
```

```
BROWSE FONT 'Sachith' LAST SAVE HYDERABAD
RETURN
```

```
PROCEDURE APPEND_REC4 && SQL Command adding new records Client
```

```
INSERT INTO client (Account_no, Name, Address)VALUES (1789847403,"praveen" ,"ABD VA")
```

```
INSERT INTO client (Account_no, Name, Address)VALUES (1789841806,"anand","EFG MD")
```

```
INSERT INTO client (Account_no, Name, Address)VALUES (1789849658,"madhan" ,"HIJ FD")
```

```
INSERT INTO client (Account_no, Name, Address)VALUES (1789849874,"nishanth" ,"YXZ LM")
```

```
BROWSE FONT 'sachith' LAST SAVE HYDERABAD
RETURN
```

