# DATABASE MANAGEMENT SYSTEMS

## Labsheet 6

-- Create the the given bank database, insert tuples(3-4rows) and formulate the given -- queries in SQL: -- Customer (Ccode, Cname, cadd) -- Account (Acno, Ccode, Branch, Balance, actype) -- Ac-actype(Acttype, Interest) -- Transaction (Acno, tno, type, tdate, Issuedby, amt) -- Loan (Lno, Ccode, branch, debit) -- Loanpayment (Lno, paymentno, Pdate, issuedby, amt) -- create table Customer\_lab6( -- ccode int primary key, -- cname varchar(20), -- cadd varchar(30) -- ); -- create table Account\_lab6( -- acno int primary key, -- ccode int references Customer\_lab6(ccode), -- branch varchar(10), -- balance numeric, -- actype varchar(10));

-- create table ac\_actype\_lab6(

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-- acttype varchar(10) primary key,
-- interest numeric
-- );
-- Transaction table with composite primary key (Acno, tno)
CREATE TABLE Transaction_lab6 (
  Acno INT,
  tno INT,
  type VARCHAR(10),
  tdate DATE,
  Issuedby VARCHAR(50),
  amt DECIMAL(10, 2),
  PRIMARY KEY (Acno, tno),
  FOREIGN KEY (Acno) REFERENCES Account_lab6(Acno)
);
-- CREATE TABLE Loan_lab6 (
-- Lno INT PRIMARY KEY,
-- Ccode INT,
-- branch VARCHAR(50),
-- debit DECIMAL(10, 2),
-- FOREIGN KEY (Ccode) REFERENCES Customer_lab6(Ccode)
-- );
-- Loanpayment table with composite primary key (Lno, paymentno)
CREATE TABLE Loanpayment_lab6 (
  Lno INT,
  paymentno INT,
  Pdate DATE,
  issuedby VARCHAR(50),
  amt DECIMAL(10, 2),
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PRIMARY KEY (Lno, paymentno),
  FOREIGN KEY (Lno) REFERENCES Loan_lab6(Lno)
);
-- INSERT INTO Customer_lab6 (ccode, cname, cadd)
-- VALUES (1, 'John Doe', '123 Maple St'),
      (2, 'Jane Smith', '456 Oak Ave'),
      (3, 'Alice Johnson', '789 Pine Rd'),
      (4, 'Bob Brown', '321 Elm St');
-- -- Account data
-- INSERT INTO Account_lab6 (acno, ccode, branch, balance, actype)
-- VALUES (1001, 1, 'Downtown', 5000, 'Savings'),
      (1002, 2, 'Uptown', 3000, 'Checking'),
      (1003, 3, 'Kollam', 7000, 'Savings'),
      (1004, 4, 'Downtown', 2000, 'Fixed');
-- -- Account type data
-- INSERT INTO ac_actype_lab6 (acttype, interest)
-- VALUES ('Savings', 1.5),
      ('Checking', 0),
      ('Fixed', 2.5);
-- -- Transaction data
-- INSERT INTO Transaction_lab6 (acno, tno, type, tdate, Issuedby, amt)
-- VALUES (1001, 1, 'Deposit', '1995-09-10', 'Teller 1', 500),
      (1002, 2, 'Withdrawal', '1995-09-10', 'Teller 2', 200),
      (1003, 3, 'Deposit', '1995-09-11', 'Teller 3', 1000);
-- -- Loan data
-- INSERT INTO Loan_lab6 (Ino, ccode, branch, debit)
```

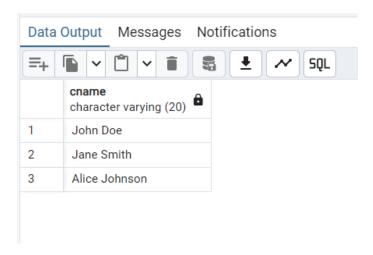
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-- VALUES (201, 1, 'Downtown', 20000),
     (202, 2, 'Uptown', 15000),
     (203, 3, 'Kollam', 10000);
-- -- Loan payment data
-- INSERT INTO Loanpayment_lab6 (Ino, paymentno, pdate, issuedby, amt)
-- VALUES (201, 1, '1995-09-12', 'Teller 1', 1000),
     (202, 2, '1995-09-13', 'Teller 2', 1500),
     (203, 3, '1995-09-14', 'Teller 3', 1200);
--1)
-- SELECT cname
-- FROM Customer_lab6
-- WHERE ccode IN (SELECT ccode FROM Loan_lab6);
--2)
-- SELECT ccode, balance
-- FROM Account_lab6
-- WHERE balance > (SELECT AVG(balance) FROM Account_lab6);
--3)
-- SELECT cname
-- FROM Customer_lab6
-- WHERE ccode = 1;
--4)
-- SELECT cname
-- FROM Customer_lab6
-- WHERE ccode IN (
-- SELECT ccode
-- FROM Account_lab6
```

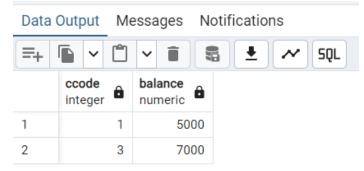
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WHERE actype IN (SELECT acttype FROM ac_actype_lab6 WHERE interest = 0)
-- );
--5)
-- SELECT cname
-- FROM Customer_lab6
-- WHERE ccode IN (
-- SELECT ccode
-- FROM Account_lab6
-- WHERE acno IN (SELECT acno FROM Transaction_lab6 WHERE tdate = '1995-09-10')
-- );
--6)
-- SELECT cname
-- FROM Customer_lab6
-- WHERE ccode IN (
-- SELECT ccode
-- FROM Account_lab6
-- WHERE balance > (SELECT AVG(balance) FROM Account_lab6)
-- );
--7)
-- SELECT cname
-- FROM Customer lab6
-- WHERE ccode IN (SELECT ccode FROM Loan_lab6 WHERE branch = 'Kollam');
--8)
-- SELECT cname
-- FROM Customer_lab6 AS C
-- JOIN Account_lab6 AS A ON C.ccode = A.ccode
-- WHERE A.balance > ALL (
-- SELECT balance
```

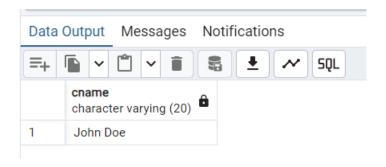
- -- FROM Account\_lab6
- -- WHERE actype = A.actype AND ccode != A.ccode

-- );

#### **OUTPUT**

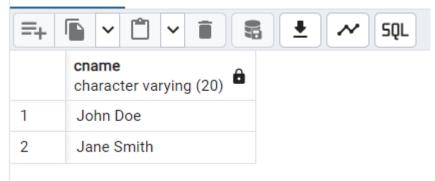








## Data Output Messages Notifications



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