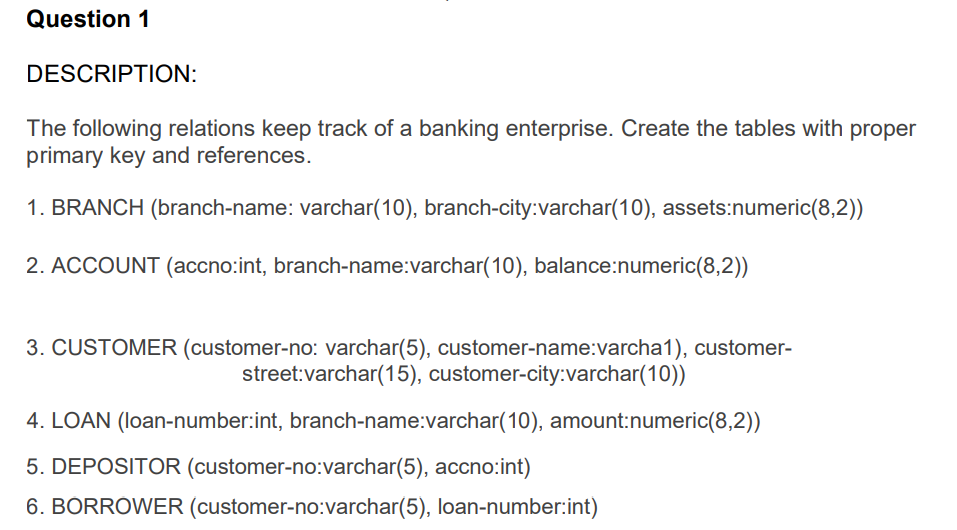
**Database management systems**

# **Labsheet - 4**



CREATE TABLE BRANCH (

branch\_name VARCHAR(10) PRIMARY KEY,

branch\_city VARCHAR(10),

assets NUMERIC(8,2)

);

CREATE TABLE ACCOUNT (

accno INT PRIMARY KEY,

branch\_name VARCHAR(10),

balance NUMERIC(8,2),

FOREIGN KEY (branch\_name) REFERENCES BRANCH(branch\_name)

);

CREATE TABLE CUSTOMER (

customer\_no VARCHAR(5) PRIMARY KEY,

customer\_name VARCHAR(10),

customer\_street VARCHAR(15),

customer\_city VARCHAR(10)

);

CREATE TABLE LOAN (

loan\_number INT PRIMARY KEY,

branch\_name VARCHAR(10),

amount NUMERIC(8,2),

FOREIGN KEY (branch\_name) REFERENCES BRANCH(branch\_name)

);

CREATE TABLE DEPOSITOR (

customer\_no VARCHAR(5),

accno INT,

PRIMARY KEY (customer\_no, accno),

FOREIGN KEY (customer\_no) REFERENCES CUSTOMER(customer\_no),

FOREIGN KEY (accno) REFERENCES ACCOUNT(accno)

);

CREATE TABLE BORROWER (

customer\_no VARCHAR(5),

loan\_number INT,

PRIMARY KEY (customer\_no, loan\_number),

FOREIGN KEY (customer\_no) REFERENCES CUSTOMER(customer\_no),

FOREIGN KEY (loan\_number) REFERENCES LOAN(loan\_number)

);

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INSERT INTO BRANCH (branch\_name, branch\_city, assets)

VALUES

('Main', 'NewYork', 100000.00),

('West', 'LosAngeles', 75000.50),

('East', 'Boston', 50000.75),

('Kollam', 'Kerala', 80000.00);

INSERT INTO ACCOUNT (accno, branch\_name, balance)

VALUES

(1001, 'Main', 2000.00),

(1002, 'Main', 3500.25),

(1003, 'West', 1500.75),

(1004, 'East', 4500.50),

(1005, 'Kollam', 12000.00),

(1006, 'Kollam', 18000.00);

INSERT INTO CUSTOMER (customer\_no, customer\_name, customer\_street, customer\_city)

VALUES

('C001', 'John Doe', '1st Ave', 'NewYork'),

('C002', 'Jane Smith', 'Sunset Blvd', 'LosAngeles'),

('C003', 'Sam Wilson', 'Park St', 'Boston'),

('C004', 'Alan Brown', 'MG Road', 'Kerala');

INSERT INTO LOAN (loan\_number, branch\_name, amount)

VALUES

(2001, 'Main', 5000.00),

(2002, 'West', 8000.50),

(2003, 'East', 3000.25),

(2004, 'Kollam', 15000.75);

INSERT INTO DEPOSITOR (customer\_no, accno)

VALUES

('C001', 1001),

('C001', 1002),

('C002', 1003),

('C003', 1004),

('C004', 1005),

('C004', 1006);

INSERT INTO BORROWER (customer\_no, loan\_number)

VALUES

('C001', 2001),

('C002', 2002),

('C003', 2003),

('C004', 2004);



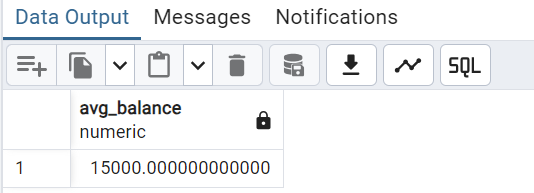
select customer\_no from account where branch\_name = 'Main' group by customer\_no having count(accno)>=2

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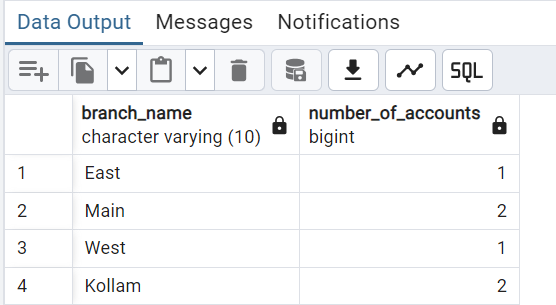


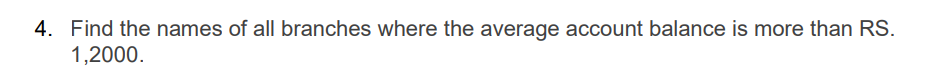
SELECT AVG(balance) AS avg\_balance FROM ACCOUNT WHERE branch\_name = 'Kollam';





SELECT branch\_name, COUNT(accno) AS number\_of\_accounts FROM ACCOUNT GROUP BY branch\_name;





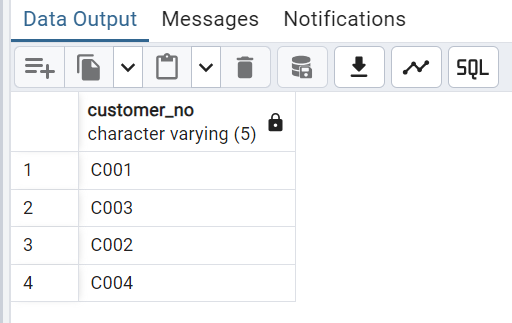
SELECT branch\_name FROM ACCOUNT GROUP BY branch\_name HAVING AVG(balance) > 12000;

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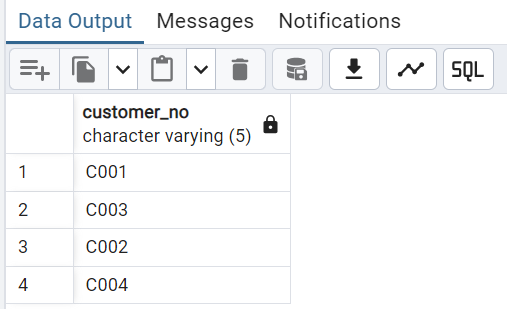


SELECT DISTINCT customer\_no FROM (SELECT customer\_no FROM DEPOSITOR UNION SELECT customer\_no FROM BORROWER) AS customers;





SELECT customer\_no FROM DEPOSITOR INTERSECT SELECT customer\_no FROM BORROWER;





SELECT COUNT(DISTINCT branch\_name) AS num\_branches\_with\_loans FROM LOAN;

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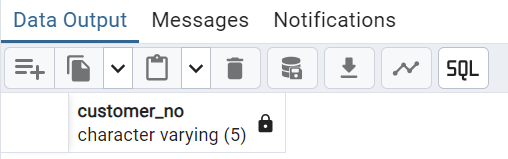
SELECT branch\_name, AVG(amount) AS avg\_loan\_amount FROM LOAN GROUP BY branch\_name;

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SELECT customer\_no FROM BORROWER GROUP BY customer\_no HAVING COUNT(loan\_number) > 1;





SELECT SUM(amount) AS total\_loan\_amount FROM LOAN;

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