**ADVABNCED DATABASE MANAGEMENT SYSTEM**

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*customer ->* Customer\_name,Customer\_street, Customer\_city

*branch* -> Branch\_name, Branch\_city, Assets

*account -> Account\_number, Bruch\_name, Balance*

*depositor -> Customer\_name, Account\_number*

*loan -> Loan\_number, Branch\_name, Ammount*

*borrower -> Customer\_name, Loan\_number*

1. Find the names & cities of all borrowers

2. Find the names & cities of customers who have a loan at "Perryridge" branch

3. Find the customers with accounts at a branch where "Hayes" has an account

4. Find the names of branch whose assets are greater than the asstes of some branch in "Brooklyn"

5. Show the name of branches having at least one account,with average balances of account at each branch ,if that average is above 700

6. Show the Names of the branch having the largest average balance

7. Find the name and branch name of the borrower

8. Find the customers who have a loan in downtown branch

9. Find the customer with loan number at a branch where jonshon has a loan

10.Find the number of borrower in each branch

11. Find the customers name who borrows the maximum amount

12. Find the customers name, their city and loan amount that they borrow

**13. Find the** average balance of all customers in "Harrison" having at least two account.

ANS:

1.SELECT DISTINCT CUSTOMER.CUSTOMER\_NAME, CUSTOMER\_CITY FROM BORROWER, CUSTOMER WHERE BORROWER.CUSTOMER\_NAME = CUSTOMER.CUSTOMER\_NAME;

2.SELECT DISTINCT C.CUSTOMER\_NAME, CUSTOMER\_CITY FROM CUSTOMER C, BORROWER B, LOAN L WHERE C.CUSTOMER\_NAME = B.CUSTOMER\_NAME AND B.LOAN\_NUMBER = L.LOAN\_NUMBER AND BRANCH\_NAME IN ('PERRYRIDGE');

3.SELECT DISTINCT D.CUSTOMER\_NAME FROM ACCOUNT A, DEPOSITOR D WHERE D.ACCOUNT\_NUMBER = A.ACCOUNT\_NUMBER AND BRANCH\_NAME IN (SELECT BRANCH\_NAME FROM DEPOSITOR, ACCOUNT WHERE DEPOSITOR.ACCOUNT\_NUMBER = ACCOUNT.ACCOUNT\_NUMBER AND DEPOSITOR.CUSTOMER\_NAME = 'HAYES');

4.SELECT DISTINCT B1.BRANCH\_NAME FROM BRANCH B1, BRANCH B2 WHERE B1.ASSETS > B2.ASSETS AND B2.BRANCH\_CITY = 'BROOKLYN';

5.SELECT BRANCH\_NAME, AVG(BALANCE) FROM ACCOUNT GROUP BY BRANCH\_NAME HAVING AVG(BALANCE)>700;

6.SELECT BRANCH\_NAME FROM ACCOUNT GROUP BY BRANCH\_NAME HAVING AVG(BALANCE)>=ALL(SELECT AVG(BALANCE) FROM ACCOUNT GROUP BY BRANCH\_NAME);

7.SELECT DISTINCT CUSTOMER.CUSTOMER\_NAME, BRANCH.BRANCH\_NAME FROM CUSTOMER, BRANCH, BORROWER, LOAN WHERE BORROWER.CUSTOMER\_NAME = CUSTOMER.CUSTOMER\_NAME AND BORROWER.LOAN\_NUMBER=LOAN.LOAN\_NUMBER AND LOAN.BRANCH\_NAME = BRANCH.BRANCH\_NAME

8.SELECT CUSTOMER.CUSTOMER\_NAME, CUSTOMER\_CITY FROM CUSTOMER, BORROWER, LOAN WHERE CUSTOMER.CUSTOMER\_NAME = BORROWER.CUSTOMER\_NAME AND BRANCH\_NAME = 'DOWNTOWN' AND BORROWER.LOAN\_NUMBER = LOAN.LOAN\_NUMBER

9.SELECT BORROWER.CUSTOMER\_NAME, LOAN.LOAN\_NUMBER FROM CUSTOMER, BORROWER, LOAN WHERE CUSTOMER.CUSTOMER\_NAME = BORROWER.CUSTOMER\_NAME AND LOAN.LOAN\_NUMBER=BORROWER.LOAN\_NUMBER AND LOAN.BRANCH\_NAME IN (SELECT LOAN.BRANCH\_NAME FROM BORROWER,LOAN WHERE BORROWER.LOAN\_NUMBER=LOAN.LOAN\_NUMBER AND BORROWER.CUSTOMER\_NAME='JONSHON');

10.SELECT COUNT(BORROWER.LOAN\_NUMBER),LOAN.BRANCH\_NAME FROM LOAN, BORROWER WHERE BORROWER.LOAN\_NUMBER=LOAN.LOAN\_NUMBER GROUP BY LOAN.BRANCH\_NAME;

11.SELECT BORROWER.CUSTOMER\_NAME FROM BORROWER,LOAN WHERE LOAN.LOAN\_NUMBER=BORROWER.LOAN\_NUMBER AND LOAN.AMOUNT = (SELECT MAX(LOAN.AMOUNT) FROM BORROWER,LOAN WHERE LOAN.LOAN\_NUMBER=BORROWER.LOAN\_NUMBER)

12. SELECT CUSTOMER\_NAME, L.LOAN\_NUMBER,L.AMOUNT,D.CUSTOMER\_CITY FROM CUSTOMER C,LOAN L,TAKE T,CUSTOMER D JOIN TAKE T ON C.CUSTOMER\_ID=T.CUSTOMER\_ID JOIN LOAN L ON L.LOAN\_NUMBER=T.LOAN\_NUMBER WHERE L.AMOUNT>0;

13. SELECT AVG(BALANCE) FROM DEPOSITOR, ACCOUNT, CUSTOMER WHERE DEPOSITOR.CUSTOMER\_NAME = CUSTOMER.CUSTOMER\_NAME AND DEPOSITOR.ACCOUNT\_NUMBER = ACCOUNT.ACCOUNT\_NUMBER AND CUSTOMER\_CITY = 'HARRISON' GROUP BY DEPOSITOR.CUSTOMER\_NAME HAVING COUNT(ACCOUNT.ACCOUNT\_NUMBER) >= 2;