ADVABNCED DATABASE MANAGEMENT SYSTEM

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Section:D

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.

1. Find the names & cities of all borrowers

```
SELECT DISTINCT customer.Customer_name, customer.Customer_city
FROM borrower
JOIN customer ON borrower.Customer_name = customer.Customer_name
```

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

```
SELECT DISTINCT customer.Customer_name, customer.Customer_city
FROM borrower
JOIN customer ON borrower.Customer_name = customer.Customer_name
```

```
JOIN loan ON borrower.Loan_number = loan.Loan_number
JOIN branch ON loan.Branch_name = branch.Branch_name
WHERE branch.Branch_name = 'Perryridge'
```

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

```
select distinct D.customer_name
from depositor D, account A
where D.account_number = A.account_number and
   branch_name in
     (select branch_name
     from depositor Dh, account Ah
     where Dh.account_number = Ah.account_number and D.customer_name = 'Hayes');
```

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

```
select distinct T.branch_name
from branch T, branch S
where T.assets > S.assets and S.branch_city = '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

```
select branch_name, avg(balance)
from account
group by branch_name
having avg(balance) > 700;
```

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

```
select branch_name
from account
group by branch_name
having avg(balance) >= all(select avg(balance)
from account group by branch_name);
```

7. Find the name and branch name of the borrower

```
SELECT customer.Customer_name, loan.Branch_name
FROM customer
JOIN borrower ON customer.Customer_name = borrower.Customer_name
JOIN loan ON borrower.Loan_number = loan.Loan_number;
```

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

```
SELECT DISTINCT Customer_name
FROM borrower JOIN loan ON borrower.Loan_number = loan.Loan_number
JOIN branch ON loan.Branch_name = branch.Branch_name
WHERE branch.Branch_city = 'downtown';
```

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

```
SELECT customer.Customer_name
FROM customer JOIN depositor ON customer.Customer_name = depositor.Customer_name
JOIN account ON depositor.Account_number = account.Account_number
JOIN loan ON account.Branch_name = loan.Branch_name
JOIN borrower ON loan.Loan_number = borrower.Loan_number
WHERE borrower.Customer_name = 'jonshon' AND customer.Customer_name =
borrower.Customer_name;
```

10.Find the number of borrower in each branch

```
SELECT account.Branch_name, COUNT(DISTINCT borrower.Customer_name) AS
Number_of_borrowers
FROM account JOIN depositor ON account.Account_number = depositor.Account_number
JOIN borrower ON depositor.Customer_name = borrower.Customer_name
GROUP BY account.Branch_name;
```

11. Find the customers name who borrows the maximum amount

```
SELECT customer.Customer_name
FROM customer
JOIN borrower ON customer.Customer_name = borrower.Customer_name
JOIN loan ON borrower.Loan_number = loan.Loan_number
WHERE loan.Amount = (
  SELECT MAX(Amount)
  FROM loan
);
```

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

```
SELECT customer.Customer_name, customer.Customer_city, loan.Amount
FROM customer
JOIN borrower ON customer.Customer_name = borrower.Customer_name
JOIN loan ON borrower.Loan_number = loan.Loan_number;
```

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

```
SELECT AVG(account.Balance)
FROM account
JOIN depositor ON account.Account_number = depositor.Account_number
JOIN customer ON depositor.Customer_name = customer.Customer_name
WHERE customer.Customer_city = 'Harrison'
GROUP BY customer.Customer_name
HAVING COUNT(account.Account_number) >= 2;
```