Query Testing

##

Customer

CUSTOMER_NAME	CUSTOMER_STREET	CUSTOMER_CITY
Adams	Spring	Pittsfield
Brooks	Senator	Brooklyn
Curry	North	Rye
Glenn	Sand Hill	Woodside
Green	Walnut	Stamford
Hayes	Main	Harrison
Johnson	Alma	Palo Alto
Jones	Main	Harrison
Smith	Main	Rye
Turner	Putnam	Stamford
Williams	Nassau	Princeton

Depositor

CUSTOMER_NAME	ACCOUNT_NUMBER
Johnson	A-101
Smith	A-215
Hayes	A-102
Turner	A-305
Johnson	A-201
Jones	A-217
Lindsay	A-222

Account

ACCOUNT_NUMBER	BRANCH_NAME	BALANCE
A-101	Downtown	500
A-215	Mianus	700
A-102	Perryridge	400
A-305	Round Hill	350
A-201	Perryridge	900
A-222	Redwood	700
A-217	Brighton	750

Borrower

CUSTOMER_NAME	LOAN_NUMBER
Jones	L-17
Smith	L-23
Hayes	L-15
Jackson	L-14
Curry	L-93
Smith	L-11
Williams	L-17
Adams	L-16

Loan

LOAN_NUMBER	BRANCH_NAME	AMOUNT
L-17	Downtown	1000
L-23	Redwood	2000
L-15	Perryridge	1500
L-14	Downtown	1500
L-93	Mianus	500
L-11	Round Hill	900
L-16	Perryridge	1300

Branch

BRANCH_NAME	BRANCH_CITY	ASSETS
Downtown	Brooklyn	900000
Redwood	Palo Alto	2100000
Perryridge	Horseneck	1700000
Mianus	Horseneck	400200
Round Hill	Horseneck	8000000
Pownal	Bennington	400000
North Town	Rye	3700000
Brighton	Brooklyn	7000000

```
# CREATE TABLE "customer" AND INSERT DATA:
----------------------------------------
create table customer (
Customer_name varchar(15),
Customer_street varchar(15),
Customer_city varchar(15)
);

insert into customer values('Adams','Spring','Pittsfield');
insert into customer values('Brooks','Senator','Brooklyn');
insert into customer values('Curry','North','Rye');
insert into customer values('Glenn','Sand Hill','Woodside');
insert into customer values('Green','Walnut','Stamford');
insert into customer values('Hayes','Main','Harrison');
insert into customer values('Johnson','Alma','Palo Alto');
insert into customer values('Jones','Main','Harrison');
insert into customer values('Smith','Main','Rye');
insert into customer values('Turner','Putnam','Stamford');
insert into customer values('Williams','Nassau','Princeton');


# CREATE TABLE "branch" AND INSERT DATA:
----------------------------------------
create table branch (
Branch_name varchar(12),
Branch_city varchar(12),
Assets int
);

insert into branch values('Downtown','Brooklyn',900000);
insert into branch values('Redwood','Palo Alto',2100000);
insert into branch values('Perryridge','Horseneck',1700000);
```

```
insert into branch values('Mianus','Horseneck',400200);
insert into branch values('Round Hill','Horseneck',8000000);
insert into branch values('Pownal','Bennington',400000);
insert into branch values('North Town','Rye',3700000);
insert into branch values('Brighton','Brooklyn',7000000);


# CREATE TABLE "account" AND INSERT DATA:
----------------------------------------
create table account (
Account_number varchar(15),
Branch_name varchar(12),
Balance int
);

insert into account values('A-101','Downtown',500);
insert into account values('A-215','Mianus',700);
insert into account values('A-102','Perryridge',400);
insert into account values('A-305','Round Hill',350);
insert into account values('A-201','Perryridge',900);
insert into account values('A-222','Redwood',700);
insert into account values('A-217','Brighton',750);


# CREATE TABLE "depositor" AND INSERT DATA:
----------------------------------------
create table depositor (
Customer_name varchar(15),
Account_number varchar(15)
);

insert into depositor values('Johnson','A-101');
insert into depositor values('Smith','A-215');
insert into depositor values('Hayes','A-102');
insert into depositor values('Turner','A-305');
insert into depositor values('Johnson','A-201');
insert into depositor values('Jones','A-217');
insert into depositor values('Lindsay','A-222');


# CREATE TABLE "loan" AND INSERT DATA:
----------------------------------------

create table loan(
Loan_number varchar(12),
Branch_name varchar(12),
Amount int
);

insert into loan values('L-17','Downtown',1000);
insert into loan values('L-23','Redwood',2000);
insert into loan values('L-15','Perryridge',1500);
insert into loan values('L-14','Downtown',1500);
insert into loan values('L-93','Mianus',500);
```

```
insert into loan values('L-11','Round Hill',900);
insert into loan values('L-16','Perryridge',1300);
```

```
# CREATE TABLE "borrower" AND INSERT DATA:
-----------------------------------------
create table borrower(
Customer_name varchar(15),
Loan_number varchar(12)
);

insert into borrower values('Jones','L-17');
insert into borrower values('Smith','L-23');
insert into borrower values('Hayes','L-15');
insert into borrower values('Jackson','L-14');
insert into borrower values('Curry','L-93');
insert into borrower values('Smith','L-11');
insert into borrower values('Williams','L-17');
insert into borrower values('Adams','L-16');
```

#01. Find the names & cities of all borrowers

""

```
SELECT DISTINCT customer.Customer_name , customer.Customer_city FROM customer INNER JOIN borrower oncustomer.Customer_name=borrower.Customer_name WHERE customer.Customer_name=borrower.Customer_name
```

CUSTOMER_NAME	CUSTOMER_CITY
Jones	Harrison
Smith	Rye
Hayes	Harrison
Curry	Rye
Williams	Princeton
Adams	Pittsfield

#02. Set of names & cities of customers who have a loan at "Perryridge" branch

```
select customer.CUSTOMER_NAME,customer.CUSTOMER_CITY from customer JOIN borrower JOIN loan where customer.Customer_name=borrower.Customer_name and borrower.Loan_number = loan.Loan_number and loan.Branch_name="Perryridge"
```

""

CUSTOMER_NAME	CUSTOMER_CITY
Adams	Pittsfield
Hayes	Harrison

#03. Number of accounts with balance between 700 and 900

""

```
SELECT account.Account_number ,account.Balance FROM account where balance
>699 and balance <901
```

ACCOUNT_NUMBER	BALANCE
A-215	700
A-201	900
A-222	700
A-217	750

#04. Name of customers on streets with names ending in "Hill"

```
SELECT customer.Customer_name ,customer.Customer_street FROM customer WHERE
Customer_street LIKE '%Hill'
```

""

CUSTOMER_NAME	CUSTOMER_STREET
Glenn	Sand Hill

#05. Name of customers with both accounts and loans at "Perryridge" branch
""
"

CUSTOMER_NAME
Hayes

```
SELECT DISTINCT depositor.Customer_name FROM depositor INNER JOIN account INNERJOIN branch INNER
 JOIN loan INNER JOIN borrower ondepositor.Account_number=account.Account_number ANDdepositor.Cu
stomer_name=borrower.Customer_name ANDborrower.Loan_number=loan.Loan_number WHERE account.Branch
_name="Perryridge"
```

#06. Names of customers with an account but not a loan at "Perryridge" branch
""

CUSTOMER_NAME
Johnson

#07. Names & cities of all borrowers
""

CUSTOMER_NAME	CUSTOMER_CITY
Jones	Harrison
Smith	Rye
Hayes	Harrison
Curry	Rye
Williams	Princeton
Adams	Pittsfield

```
SELECT DISTINCT customer.Customer_name,customer.Customer_city from customer JOIN borrower WHEREcustomer.Customer_name=borrower.Customer_name
```

#08. Set of names of customers with accounts at a branch where "Hayes" has an account
""

CUSTOMER_NAME
Hayes
Johnson

```
select customer.Customer_name FROM customer INNER JOIN account INNER JOIN depositor ON customer.Customer_name=depositor.Customer_name AND depositor.Account_number=account.Account_number and account.Branch_name= (SELECTDISTINCT branch.Branch_name FROM loan JOIN branch JOIN account JOIN borrower JOIN customer JOIN depositor WHERE customer.Customer_name=depositor.Customer_name AND depositor.Account_number=account.Account_number ANDcustomer.Customer_name=borrower.Customer_name AND account.Branch_name =branch.Branch_name AND branch.Branch_name=loan.Branch_name AND customer.Customer_name= "Hayes")
```

#09. Set of names of branch whose assets are greater than the Assets of some branch in "Brooklyn"
""

BRANCH_NAME	ASSETS
Redwood	2100000
Perryridge	1700000
Round Hill	8000000
North Town	3700000
Brighton	7000000

```
SELECT branch.Branch_name , branch.Assets FROM branch WHERE branch.Assets > (SELECTMIN(branch.Assets) FROM branch WHERE branch.Branch_city="Brooklyn")
```

#10. Set of names of branch whose assets are greater than the Assets of all branch in "Brooklyn"
""

BRANCH_NAME	ASSETS
Round Hill	8000000

```
SELECT branch.Branch_name , branch.Assets FROM branch WHERE branch.Assets > (SELECTMAX(branch.Assets) FROM branch WHERE branch.Branch_city="Brooklyn")
```

#11. Set of names of customers at "Perryridge" branch in alphabetical order
""

CUSTOMER_NAME
Adams
Hayes
Johnson

```
SELECT depositor.Customer_name FROM account INNER JOIN depositor onaccount.Account_number=deposi
tor.Account_number WHERE account.Branch_name="Perryridge"UNION SELECT borrower.Customer_name FRO
M borrower INNER JOIN loan onloan.Loan_number=borrower.Loan_number WHERE loan.Branch_name="Perry
ridge" ORDER BYCustomer_name ASC
```

#12. Loan data ordered by decreasing ammount then increasing loan numbers
""

LOAN_NUMBER	BRANCH_NAME	AMOUNT
L-23	Redwood	2000
L-14	Downtown	1500
L-15	Perryridge	1500
L-16	Perryridge	1300
L-17	Downtown	1000
L-11	Round Hill	900
L-93	Mianus	500

```
SELECT Loan_number , Branch_name , Amount FROM loan ORDER BY Amount DESC,Loan_number ASC
```

#13. Names of branch having at least one account with average account balance
""

BRANCH_NAME	AVG(BALANCE)
Round Hill	350
Mianus	700
Perryridge	650
Redwood	700
Brighton	750
Downtown	500

```
select branch_name, avg(balance) as avg_bal from account group by branch_name
```

#14. Names of branch having at least one account with size of set of customers having at least one account at that branch
""

BRANCH_NAME	COUNT(ACCOUNT_NUMBER)
Round Hill	1
Mianus	1
Perryridge	2
Redwood	1
Brighton	1
Downtown	1

```
SELECT account.Branch_name ,COUNT(account.Account_number) as total_account FROM account GROUP BY
 account.Branch_name
```

#15. The average balance of all accounts
""

AVG(BALANCE)
614.286

```
SELECT AVG(account.Balance) FROM account
```

#16. name of branches having at least one account,with average balances of account at each branch,if that average is above 700
""

BRANCH_NAME	AVG(BALANCE)
Brighton	750

```
select branch_name, avg(balance) as avg_bal from account group by branch_name HAVINGavg_bal>700
```

#17. Names of branches having largest average balance
"""

BRANCH_NAME	BALANCE
Brighton	750

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

```
SELECT shadhin.branch_name ,MAX(shadhin.avg_bal) as max_value FROM Shadhin
Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
select branch_name, avg(balance) as avg_bal
 from account group by branch_name
```

#18. The no of customers
""""""""""""""""""""""""""""""""""""

COUNT(CUSTOMER_NAME)
11

```
SELECT COUNT(customer.Customer_name) AS Total_customer FROM customer
```

#19.Find the customers who have a loan in downtown branch
""

CUSTOMER_NAME
Williams
Jones
Jackson

```
SELECT borrower.Customer_name FROM loan INNER JOIN borroweron loan.Loan_number=borrower.Loan_num
ber whereloan.Branch_name="downtown"
```

#20.Find the customers who have loan between 1500 and 2500
"""

CUSTOMER_NAME
Smith
Hayes

Jackson

```
SELECT borrower.Customer_name from borrower INNER JOIN loanon borrower.Loan_number=loan.Loan_number where loan.Amount>1499 AND loan.Amount<2499
```

#21.Find the customers who live in the city "Rye" and have a loan in the bank
""

CUSTOMER_NAME
Curry
Smith

```
SELECT DISTINCT customer.Customer_name from customer INNER JOIN borrower INNER JOIN loan WHEREcustomer.Customer_city = "Rye" AND customer.Customer_name=borrower.Customer_name ANDborrower.Loan_number=loan.Loan_number
```

#22. Find the number of borrower in each branch
""

BRANCH_NAME	COUNT(CUSTOMER_NAME)
Round Hill	1
Mianus	1
Perryridge	2
Redwood	1
Downtown	3

```
SELECT loan.Branch_name,COUNT(borrower.Loan_number) AS HighestPrice FROM borrower INNER JOIN loan onborrower.Loan_number=loan.Loan_number GROUP BY loan.Branch_name
```

#23. Find the Branch name having largest average loan amount
""

BRANCH_NAME	AVG(AMOUNT)
Redwood	2000

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

#24. Find the customers name who borrows the maximum amount
"""

CUSTOMER_NAME	LOAN_NUMBER	AMOUNT
Smith	L-23	2000

```
select borrower.Customer_name, loan.Loan_number ,loan.Amount FROM borrower INNER JOIN loan onborrower.Loan_number=loan.Loan_number WHERE loan.Amount=(SELECT MAX(loan.Amount) FROM loan)
```

#25.Find the customers name with first letter "G"
""

CUSTOMER_NAME
Glenn
Green

```sql
select customer.Customer_name FROM customer WHERE Customer_name LIKE 'G%'
```