LAB 2

BANKING ENTERPRISE

Consider the following database for a banking enterprise.

BRANCH (branch-name: String, branch-city: String, assets: real)

ACCOUNTS (accno: int, branch-name: String, balance: real)

DEPOSITOR (customer-name: String, customer-street: String, customer-city: String)

LOAN (loan-number: int, branch-name: String, amount: real)

BORROWER (customer-name: String, loan-number: int)

i. Create the above tables by properly specifying the primary keys and the foreign keys.

```
CREATE TABLE BRANCH(
BRANCH_NAME VARCHAR(20),
BRANCH_CITY VARCHAR(20),
ASSETS REAL,
PRIMARY KEY(BRANCH_NAME));

CREATE TABLE BANK_ACCOUNT(
ACCNO INT,
BRANCH_NAME VARCHAR(20),
BALANCE REAL,
PRIMARY KEY(ACCNO),
FOREIGN KEY(BRANCH_NAME) REFERENCES BRANCH(BRANCH_NAME));

CREATE TABLE BANK_CUSTOMER(
CUSTOMERNAME VARCHAR(20),
CUSTOMERSTREET VARCHAR(30),
CUSTOMERCITY VARCHAR(30),
PRIMARY KEY(CUSTOMERNAME));

CREATE TABLE DEPOSITER(
CUSTOMERNAME VARCHAR(20),
ACCNO INTEGER,
PRIMARY KEY(CUSTOMERNAME,ACCNO),
FOREIGN KEY(CUSTOMERNAME) REFERENCES BANK_CUSTOMER(CUSTOMERNAME),
```

```
    FOREIGN KEY(ACCNO) REFERENCES BANK_ACCOUNT(ACCNO));

    CREATE TABLE LOAN(
    LOAN_NUMBER INT,
    BRANCH_NAME VARCHAR(20),
    AMOUNT REAL,
    PRIMARY KEY(LOAN_NUMBER),
    FOREIGN KEY(BRANCH_NAME) REFERENCES BRANCH(BRANCH_NAME));
```

ii. Enter at least five tuples for each relation.

```
INSERT INTO BRANCH
VALUES('IOB-HANUMANTHNAGAR','BANGLORE','50000'),('IOB-
GANGAVATHI','GANGAVATHI','20000'),('IOB-JAYANAGAR','BANGLORE','70000'),('IOB-
GANDHINAGAR','GANGAVATHI','30000'),('IOB-KRISHNANAGAR','GULBURGA','90000')
```

```
INSERT INTO BANK_ACCOUNT
VALUES('101','IOB-HANUMANTHNAGAR','2000'),('102','IOB-
GANGAVATHI','2000') ,('1021','IOB-JAYANAGAR','3000') ,('103','IOB-
KRISHNANAGAR','4000') ,('104','IOB-GANDHINAGAR','5000'),('105','IOB-
HANUMANTHNAGAR','8000') ,('106','IOB-GANDHINAGAR','1000'),('107','IOB-
HANUMANTHNAGAR','500')
```

```
INSERT INTO bank_customer
VALUES
('DARSHAN','THYAGRAJNAGAR','BANGLORE'),('SUDEEP','JAYANAGAR','BANGLORE'),('TYAX','G
ANDHINAGAR','GANGAVATHI'),('SAHANA','KRISHNANAGAR','GULBURGA'),('SINDHU','PADMA
NAGAR','BANGLORE'),('JAYSHREE','RAJEEVNAGAR','GANGAVATHI'),('AMOGH','JAYANAGAR','
BANGLORE')
```

```
INSERT INTO DEPOSITOR
VALUES('SAHANA','101'),('TYAX','102'),('SUDEEP','1021'),('DARSHAN','103'),('SINDHU','104'),(
'JAYSHREE','106'),('AMOGH','107')
INSERT INTO LOAN
VALUES('1','IOB-HANUMANTHNAGAR','200000'),('2','IOB-JAYANAGAR','100000'),('3','IOB-
GANDHINAGAR','50000'),('4','IOB-KRISHNANAGAR','300000')
```

iii. Find all the customers who have at least two accounts at the Main branch.

SELECT CUSTOMERNAME FROM DEPOSITER GROUP BY CUSTOMERNAME HAVING COUNT(ACCNO)>=2;
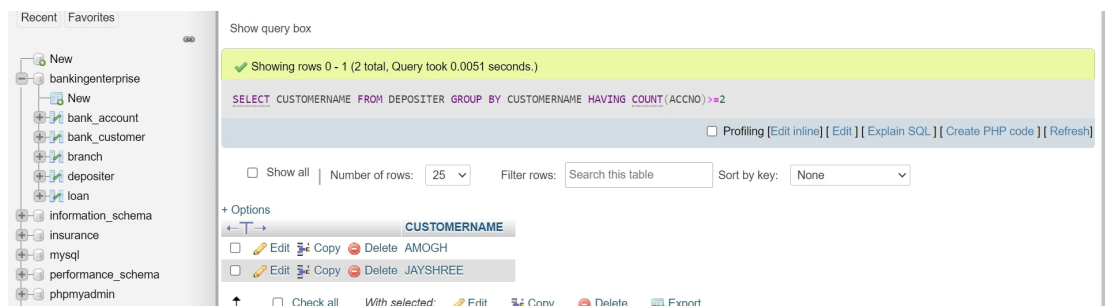
iv. Find all the customers who have an account at all the branches located in a specific city.

select d.customername from bankaccount a,branch b,depositor d where b.branchname=a.branchname and a.accno=d.accno and branchcity='banglore' group by d.customername having count(distinct b.branchname)=(select count(branchname)from branch where branchcity='banglore')
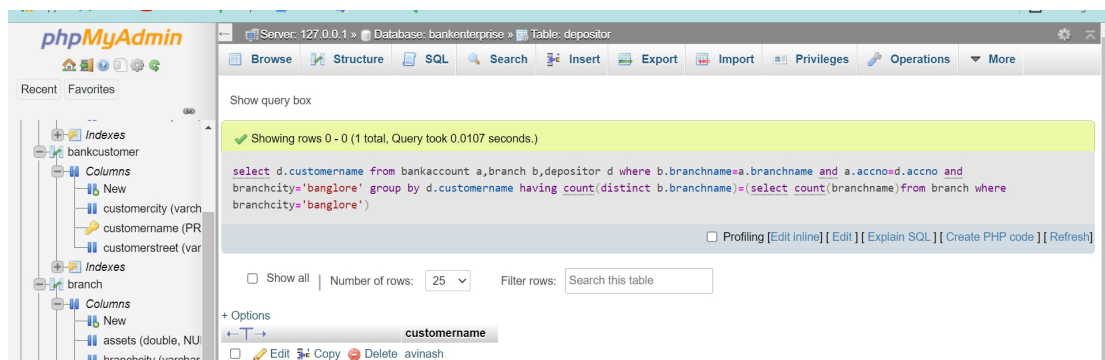
v. Demonstrate how you delete all account tuples at every branch located in a specific city
delete from bankaccount where branchname in(select branchname from branch where branchcity='banglore')

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✓ 4 rows affected. (Query took 0.0147 seconds.)

delete from bankaccount where branchname in(select branchname from branch where branchcity='banglore')

[Edit inline] [Edit] [Create PHP code]

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delete from bankaccount where branchname in(select branchname from branch where branchcity='banglore')

Edit inline] [Edit] [Create PHP code]