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1BM19CS057

DBMS Lab Test - 1

1) Banking Enterprise

Ans:

```
create database banking-enterprise;

use banking-enterprise;
create table branch (
        branch_name varchar (30),
        branch-city varchar(30),
        assets real,
        primary key (branch-name)
    );
create table accounts(
        accno int,
        branch-name varchar(30),
        balance real,
        primary key (accno),
        foreign key (branch-name) references branch(branch-name)
                                  on delete cascade

    );
create table customer(
        customer-name varchar (30),
        customer-street varchar(20),
        customer-city varchar(20),
        primary key (customer-name)
    );
```

```
create table depositor(
        customer_name varchar(30),
        accno int,
        primary key (customer_name, accno),
    foreign key (customer_name) references customer (customer_name)
                                        on update cascade,
foreign key (accno) references accounts (accno) on delete cascade
    );
create table loan(
        loan_number int
        branch_name varchar (30),
        amount real,
        primary key (loan_number),
    foreign key (branch_name) references branch (branch_name) on
                                        delete cascade
    );
create table borrower (
        customer_name varchar(30),
        loan_number int,
    primary key (customer_name, loan_number),
foreign key (customer_name) reference customer (customer_name) on
                                        update cascade,
foreign key (loan_number) reference loan (loan_number) on
                                        delete cascade

    );
```

```
insert into branch values ("SBI PD NAGAR", "BANGALORE", 200000);
insert into branch values ("SBI RAJAJI NAGAR", "BANGALORE", 500000);
insert into branch values("SBI TYAGRAJ NAGAR", "BANGALORE", 300000);
insert into branch values ("SBI BASAVANAGUDI", "BANGALORE", 680000);
insert into branch values ("SBI J.P. NAGAR", "BANGALORE", 900000);

select * from branch;

insert into accounts values(12840l, "SBI RAJAJI NAGAR", 7000);
insert into accounts values(128402, "SBI PD NAGAR", 5000);
insert into account values(128403, "SBI J.P. NAGAR", 10000);
insert into accounts values (128404, "SBI BASAVANAGUDI", 20000);
insert into accounts values (128405, "SBI TYAGRAJ NAGAR", 25000);
insert into accounts values (128407, "SBI J.P.NAGAR", 40000);

select * from accounts;

insert into customer values ("KESAV", "M.G. ROAD", "BANGALORE");
insert into customer values("RAJ", "MANNAT", "BANGALORE");
insert into customer values("AMAN", "ANTILAA", "BANGALORE");
insert into customer values("SAMAR", "RESIDENCY ROAD", "BANGALORE");
insert into customer values("RAHUL", "VS ROAD", "BANGALORE");
insert into customer values("ARJUN", "ST. MARTHA ROAD", "BANGALORE");

select * from customer;

insert into loan values(10111, "SBI J.P.NAGAR", 10000);
insert into loan values(10112, "SBI RAJAJI NAGAR", 8000);
insert into loan values(10113, "SBI BASAVANAGUDI", 12000);
insert into loan values(10114, "SBI P.D. NAGAR", 15000);
insert into loan values(10115, "SBI TYAGRAJ NAGAR", 5000);

select * from loan;
```

```
insert into borrower values ("KESAV", 10111);
insert into borrower values ("SAMAR", 10114);
insert into borrower values ("RAHUL", 10115);
insert into borrower values ("RAJ", 10112);
insert into borrower values ("SAMAR", 10113);
select * from borrower;

insert into depositor values ("KESAV", 128401);
insert into depositor values ("RAJ" 128402);
insert into depositor values ("AMAN" 128403);
insert into depositor values ("RAHUL" 128405);
insert into depositor values ("AMAN" 128404);
select * from depositor;

select customer_name from depositor d, accounts a
    where d.accno = a.accno
    and
    a.branch_name = "SBI J.P.NAGAR"
    group by d.customer_name
    having count (d.customer_name) >= 2;

select d.customer_name from accounts a, branch b, depositor d
  where b.branch_name = a.branch_name
    and
    a.accno = d.accno
    and
    b.branch_city = "BANGALORE"
    group by d.customer_name
    having count (distinct b.branch_name) = (select count (branch_name)
                                             from branch where branch_city = "BANGALORE");
```

delete from accounts
where branch_name in (select branch_name from branch where
branch_city = 'BANGALORE');

ALTER **
alter table accounts
add account_type varchar(30);

select customer_name, customer_street, customer_city FROM
Customer where customer_name IN (select customer_name
From borrower where loan_number IN (SELECT loan_numbe
from LOAN having avg (amount) > 20000))