

## Sudhanva S M – 1BM24CS296

### Bank Database

```
create database bank1;
use bank1;
create table branch(branch_name varchar(20), branch_city varchar(20), assets int, primary key(branch_name));
create table bankaccount(acc_no int, branch_name varchar(20), balance int, primary key(acc_no), foreign key(branch_name) references branch(branch_name));
create table bankcustomer(customer_name varchar(20), customer_street varchar(20), customer_city varchar(20), primary key(customer_name));
create table depositer(customer_name varchar(20), acc_no int primary key, foreign key(customer_name) references bankcustomer(customer_name));
create table loan(loan_number int primary key, branch_name varchar(20), amount int, foreign key(branch_name) references branch(branch_name));
desc branch;
desc bankaccount;
desc bankcustomer;
desc depositer;
desc loan;
insert into branch values("SBI_Chamarajpet","Bangalore",50000),("SBI_Residency Road","Bangalore",10000),("SBI_Shivaji Road","Bangalore",20000),("SBI_Parliament Road","Delhi",10000),("SBI_Jantarmantar","Delhi",20000);
insert into bankaccount values(1,"SBI_Chamarajpet",2000),(2,"SBI_Residency Road",5000),(3,"SBI_Shivaji Road",6000),(4,"SBI_Parliament Road",9000),(5,"SBI_Jantarmantar",8000);
insert into bankcustomer values('Avinash','Bull temple road','Bangalore'),('Dinesh','Bannerghatta road','Bangalore'),('Mohan','NationalCollege road','Bangalore'),('Nikhil','Akbar road','Delhi'),('Ravi','Prithviraj road','Delhi');
```

```

insert into depositer values('Avinash',1),('Dinesh',2),('Nikhil',4),('Ravi',5),('Nikhil',9);
insert into loan values(1,"SBI_Chamarajpet",10000),(2,"SBI_Residency
Road",2000),(3,"SBI_Shivaji Road",3000),(4,"SBI_Parliament
Road",4000),(5,"SBI_Jantarmantar",5000);

```

**Queries:**

1. **Display the branch name and assets from all branches in lakhs of rupees and rename the assets column to 'assets in lakhs'.**

```

select branch_name, assets/100000 as "Assets in Lakhs"
from branch;

```

branch_name	Assets in Lakhs
SBI_Chamarajpet	0.5000
SBI_Jantarmantar	0.2000
SBI_ParliamentRoad	0.1000
SBI_ResidencyRoad	0.1000
SBI_ShivajiRoad	0.2000

2. **Find all the customers who have at least two accounts at the same branch (ex. SBI\_ResidencyRoad).**

```

select d.customer_name, ba.branch_name
from depositer d, bank_account ba
where d.accno = ba.accno
group by d.customer_name, ba.branch_name
having count(d.accno) >= 2;

```

customer_name	branch_name
Dinesh	SBI_ResidencyRoad
Nikil	SBI_ParliamentRoad

3. **CREATE A VIEW WHICH GIVES EACH BRANCH THE SUM OF THE AMOUNT OF ALL THE LOANS AT THE BRANCH.**

```

Create View LoanSummary as
select branch_name, sum(amount) as Total_Amount
from loan
group by branch_name;
select * from LoanSummary;

```

branch_name	Total_Amount
SBI_Chamarajpet	1000
SBI_Jantarmantar	5000
SBI_ParliamentRoad	4000
SBI_ResidencyRoad	2000
SBI_ShivajiRoad	3000

**4. Customers with accounts in all branches in a specific city**

```
select bc.customer_name, b.branch_name  
from bankcustomer bc, branch b  
where bc.customer_city=b.branch_city and b.branch_name =All(select branch_name from  
branch  
where branch_city="Delhi");
```

customer_name	branch_name
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**5. All customers who have account and loan at the bangalore branch.**

```
select d.customer_name  
from depositer d, bankaccount bc, loan l, branch b  
where d.acc_no=bc.acc_no and bc.branch_name=b.branch_name and  
b.branch_name=l.branch_name and b.branch_city="Bangalore";
```

customer_name
Avinash
Dinesh

**6. All branches that have grater assets than every branch in bangalore.**

```
select branch_name  
from branch  
where assets>All(select assets from branch where branch_city="Bangalore");
```

branch_name
NULL

**7. Delete all accounts where city is delhi.**

```
delete from bankaccount b  
where b.branch_name IN (select branch_name from branch where branch_city="Delhi");  
select *from bankaccount;
```

acc_no	branch_name	balance
1	SBI_Chamarajpet	2100
2	SBI_Residency Road	5250
3	SBI_Shivaji Road	6300
NULL	NULL	NULL

**8. Update balance of all accounts be 5%**

```
update bankaccount  
set balance=balance+balance*0.05;
```

acc_no	branch_name	balance
1	SBI_Chamarajpet	2205
2	SBI_Residency Road	5513
3	SBI_Shivaji Road	6615
NULL	NULL	NULL