# WEEK – 3

# Bank Database

Branch (branch-name: String, branch-city: String, assets: real)
BankAccount(accno: int, branch-name: String, balance: real)
BankCustomer (customer-name: String, customer-street: String,
customer-city: String)
Depositer(customer-name: String, accno: int)
LOAN (loan-number: int, branch-name: String, amount: real)

i. Create the above tables by properly specifying the primary keys and the foreign keys.
ii. Enter at least five tuples for each relation.
iii. Display the branch name and assets from all branches in lakhs of rupees and rename the assets column to 'assets in lakhs'.
vi. Find all the customers who have at least two accounts at the same branch (ex.SBI_ResidencyRoad).
v. Create A View Which Gives Each Branch The Sum Of The Amount Of All The Loans At The Branch.

## Create tables :-

```
create database bank;
use bank;

create  table branch(
branch_name varchar(30) primary key,
branch_city varchar(30),
assets int);

create table bankacc(
acc_no int primary key,
branch_name varchar(30),
balance int,
foreign key(branch_name) references branch(branch_name));
```

```
create table bankcust(
 customer_name varchar(20) primary key,
 customer_street varchar(20),
 city varchar(10));

create table depositer(
customer_name varchar(20) ,
acc_no int ,
primary key(customer_name,acc_no),
foreign key(customer_name) references bankcust(customer_name),
foreign key(acc_no) references bankacc(acc_no));

create table loan(
 loan_no int,
 branch_name varchar(30),
 amount int,
 primary key(loan_no),
 foreign key(branch_name) references branch(branch_name));
```

**Inserting values:-**

```
insert into branch values('sbi_chamraj','bangalore',50000),
('sbi_residency','bangalore',10000),
('sbi_shivaji','bombay',20000),
('sbi_parliment','delhi',10000),
('sbi_jantarmantur','delhi',20000);

insert into bankcust values
('avinash','Bull_temple_road','bangalore'),
('Dinesh','Bannergatta_road','bangalore'),
('mohan','nationacollege_road','bangalore'),
('nikil','akbar_road','delhi'),
('ravi','prithviraj_road','delhi');
```

```
insert into bankacc values(1,'sbi_chamraj',2000),
(2,'sbi_residency',5000),
(3,'sbi_shivaji',6000),
(4,'sbi_parliment',9000),
(5,'sbi_jantarmantar',8000),
(6,'sbi_shivaji',4000),
(7,'sbi_residency',4000),
(8,'sbi_parliment',3000),
(9,'sbi_residency',5000),
(10,'sbi_jantarmantar',2000);
insert into depositer values
('avinash',1),
('Dinesh',2),
('nikil',4),
('ravi',5),
('avinash',7),
('nikil',8),
('Dinesh',9),
('nikil',10);
insert into loan values
(1,'sbi_chamraj',1000),
(2,'sbi_residency',2000),
(3,'sbi_shivaji',3000),
(4,'sbi_parliment',4000),
(5,'sbi_jantarmantar',5000);
insert into loan values(6,'sbi_shivaji',3000),(7,'sbi_parliment',4000);
```

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

```
alter table branch
rename column assets to assets_in_lakhs ;
```

| | Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|---|
| ▶ | branch_name | varchar(30) | NO | PRI | NULL | |
| | branch_city | varchar(30) | YES | | NULL | |
| | assets_in_lakhs | int | YES | | NULL | |

```
select  branch_name,assets/100000 as assets_in_lakhs from branch;
```

| | branch_name | assets_in_lakhs |
|---|---|---|
| ▶ | sbi_chamraj | 0.5000 |
| | sbi_jantarmantar | 0.2000 |
| | sbi_parliment | 0.1000 |
| | sbi_residency | 0.1000 |
| | sbi_shivaji | 0.2000 |

**Find all the customers who have at least two accounts at the same branch (ex.SBI_ResidencyRoad).**

```
select d.customer_name , b.branch_name , count(*) as numofdepo
from depositer d
join bankacc b on d.acc_no = b.acc_no
group by b.branch_name,d.customer_name
having count(*) >=2;
```

| | customer_name | branch_name | numofdepo |
|---|---|---|---|
| ▶ | Dinesh | sbi_residency | 2 |
| | nikil | sbi_parliment | 2 |

**Create A View Which Gives Each Branch The Sum Of The Amount Of All The Loans At The Branch.**

```
create view sum_of_loan
as select sum(amount) as sum_of_loan,branch_name from loan
group by branch_name ;
select * from sum_of_loan;
```

| sum_of_loan | branch_name |
|---|---|
| 1000 | sbi_chamraj |
| 5000 | sbi_jantarmantar |
| 8000 | sbi_parliment |
| 2000 | sbi_residency |
| 6000 | sbi_shivaji |