

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','Bannerhatta_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 | |

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 |