Module 5 Assesment

- **Write SQL query to solve the problem given below**

  Here we are talking about the Bank related information of a person.
  For which you need to create three tables named as Bank, Account holder and Loan table.

  And solve the problem stated below.
  Create a Bank table, attributes are : branch id, branch name, branch city
  Create a Loan table, attributes are : loan no, branch id, account holder's id, loan amount and loan type

  Create a table named as Account holder for the same scenario containing the attributes are account holder's id, account no, account holder's name, city,contact, date of account created, account status (active or terminated), account type and balance.

  ANS>>

```
use taskdb;

create table branch(branch_id int primary key auto_increment,branch_name
varchar(50),branch_city varchar(50));

insert into branch(branch_name,branch_city)values
('shree laxmi','rajkot'),
('krishna','ahemdabad'),
('rk','junagadh');

insert into branch(branch_name,branch_city)value
('shree dhanlaxmi','rajkot');

create table ac_holder(ac_holders_id int primary key auto_increment,ac_no bigint
unique,ac_holders_name varchar(50),city varchar(50),contact bigint,ac_opening_date
date,ac_status varchar(20),ac_type varchar(20),ac_balance int);

insert into ac_holder( ac_no, ac_holders_name, city, contact, ac_opening_date, ac_status,
ac_type, ac_balance)values
(10020030001, 'rahul kanara', 'rajkot', '8980073845', '2020-12-10', 'active', 'saving', 100000),
(10020030002, 'heet kanara', 'rajkot', '8849490169', '2022-02-12', 'active', 'current', 150000),
```

(10020030003, 'hardik garaniya', 'junagadh', '9929966566', '2021-08-22', 'active', 'saving', 20000),
(10020030004, 'kapil garaniya', 'ahemdabad', '9969959596', '2018-01-01', 'terminated', 'current', 78000),
(10020030005, 'chintan garaniya', 'junagadh', '8875754659', '2024-02-01', 'active', 'current', 99000);

```
create table loan(
loan_number int primary key auto_increment,
branch_id int,foreign key (branch_id) references branch(branch_id),
ac_holders_id int,foreign key (ac_holders_id) references ac_holder(ac_holders_id),
loan_amount int,
loan_type varchar(50));

insert into loan(branch_id, ac_holders_id, loan_amount, loan_type) values
(1, 1, 50000,'car'),
(1, 2, 80000,'jawallary'),
(2, 4, 100000,'home'),
(3, 3, 45000,'personal');

select * from branch;
select * from ac_holder;
select * from loan;
```

OUTPUT:

Branch Table :

branch_id	branch_name	branch_city
1	shree laxmi	rajkot
2	krishna	ahemdabad
3	rk	junagadh
4	shree dhanlaxmi	rajkot
NULL	NULL	NULL

Account Holder Table :

ac_holders_id	ac_no	ac_holders_name	city	contact	ac_opening_date	ac_status	ac_type	ac_balance
1	10020030001	rahul kanara	rajkot	8980073845	2020-12-10	active	saving	10000
2	10020030002	heet kanara	rajkot	8849490169	2022-02-12	active	current	150000
3	10020030003	hardik garaniya	junagadh	9929966566	2021-08-22	active	saving	20000
4	10020030004	kapil garaniya	ahemdabad	9969959596	2018-01-01	terminated	current	78000
5	10020030005	chintan garaniya	junagadh	8875754659	2024-02-01	active	current	99000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Loan Table :

loan_number	branch_id	ac_holders_id	loan_amount	loan_type
1	1	1	50000	car
2	1	2	80000	jawallary
3	2	4	100000	home
4	3	3	45000	personal
NULL	NULL	NULL	NULL	NULL

- **Consider an example where there's an account holder table where we are doing an intra bank transfer i.e. a person holding account A is trying to transfer $100 to account B.**

  - for this you have to make a transaction in sql which can transfer fund from account A to B

  - Make sure after the transaction the account information have to be updated for both the credit account and the debited account

ANS>>

```
create table transaction (t_id int primary key auto_increment,from_account bigint,to_account bigint,amount bigint,t_date datetime);


select * from transaction;


delimiter //

create trigger t_debit

before insert on transaction

for each row

begin

update ac_holder set ac_balance = ac_balance - NEW.amount where ac_no = NEW.from_account;

end//

delimiter ;
```

```
delimiter //

create trigger t_credit

after insert on transaction

for each row

begin

update ac_holder set ac_balance = ac_balance + NEW.amount where ac_no = NEW.to_account;

end //

delimiter ;
```

```
insert into transaction (from_account, to_account, amount, t_date)values(10020030001,
10020030002, 100, now());

select * from transaction;

select * from ac_holder;
```

OUTPUT:

Transaction Table :

t_id	from_account	to_account	amount	t_date
1	10020030001	10020030002	100	2024-07-06 12:13:09
NULL	NULL	NULL	NULL	NULL

Account Holder Table :

ac_holders_id	ac_no	ac_holders_name	city	contact	ac_opening_date	ac_status	ac_type	ac_balance
1	10020030001	rahul kanara	rajkot	8980073845	2020-12-10	active	saving	99900
2	10020030002	heet kanara	rajkot	8849490169	2022-02-12	active	current	150100
3	10020030003	hardik garaniya	junagadh	9929966566	2021-08-22	active	saving	20000
4	10020030004	kapil garaniya	ahemdabad	9969959596	2018-01-01	terminated	current	78000
5	10020030005	chintan garaniya	junagadh	8875754659	2024-02-01	active	current	99000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

- **Also fetch the details of the account holder who are related from the same city**
  ANS>> select * from ac_holder where city='rajkot';

OUTPUT:

ac_holders_id	ac_no	ac_holders_name	city	contact	ac_opening_date	ac_status	ac_type	ac_balance
1	10020030001	rahul kanara	rajkot	8980073845	2020-12-10	active	saving	99900
2	10020030002	heet kanara	rajkot	8849490169	2022-02-12	active	current	150100
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

- **Write a query to fetch account number and account holder name, whose accounts were created after 15th of any month**

ANS>> select ac_no,ac_holders_name,ac_opening_date from ac_holder where ac_opening_date between '2021-08-15' and '2021-08-30';

OUTPUT:

ac_no	ac_holders_name	ac_opening_date
10020030003	hardik garaniya	2021-08-22

- **Write a query to display the city name and count the branches in that city. Give the count of branches an alias name of Count_Branch.**

ANS>> select branch_city, count(branch_id) from branch group by branch_city;

OUTPUT:

branch_city	count(branch_id)
rajkot	2
ahemdabad	1
junagadh	1

- **Write a query to display the account holder's id, account holder's name, branch id, and loan amount for people who have taken loans. (NOTE : use sql join concept to solve the query)**

ANS>>

select ac_holder.ac_holders_id,ac_holder.ac_holders_name,loan.branch_id,loan.loan_amount from ac_holder join loan on ac_holder.ac_holders_id = loan.loan_number;

OUTPUT :

ac_holders_id	ac_holders_name	branch_id	loan_amount
1	rahul kanara	1	50000
2	heet kanara	1	80000
3	hardik garaniya	2	100000
4	kapil garaniya	3	45000