**Section:** B2

**Course No:** CSE 322

**Course Title: Database Systems.**

**Project Name:** Online Banking System.

**Submitted to:**

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**About the project:**

Online banking, also known as internet banking, it is an [electronic payment system](https://en.wikipedia.org/wiki/Electronic_money) that enables customers of a [bank](https://en.wikipedia.org/wiki/Bank) or other [financial institution](https://en.wikipedia.org/wiki/Financial_institution) to conduct a range of [financial transactions](https://en.wikipedia.org/wiki/Financial_transaction) through the financial institution's website. The online banking system will typically connect to or be part of the [core banking](https://en.wikipedia.org/wiki/Core_banking) system operated by a bank and is in contrast to [branch banking](https://en.wikipedia.org/wiki/Branch_banking) which was the traditional way customers accessed banking services.

Today, "[virtual banks](https://en.wikipedia.org/wiki/Direct_bank)" (or “direct banks”) have only an internet presence, which enables them to lower costs than traditional brick-and-mortar banks.

To access this online banking facility, a customer with internet access will need to register with the institution for the service, and set up a password and other [credentials](https://en.wikipedia.org/wiki/Credential) for customer verification. The credentials for online banking are normally not the same as for [telephone](https://en.wikipedia.org/wiki/Telephone_banking) or [mobile banking](https://en.wikipedia.org/wiki/Mobile_banking). The admins will verify that information practically. If information’s are valid, the member will be accepted. Otherwise the member request will be declined.

If a user is a valid member of this online bank, he can take loan, make deposit, send money to other accounts, recharge own account.

When any user will login, he will able to see his current balance, loan statements with loan type and dates, money transfer transactions with dates.

We have used a database named “bank” with 9 different tables. Each table has specific work & sometimes works for specific users also. For example, in this project we have three kinds of users. Admins controls the accepting table. Again manager can access all tables.

ER- DIAGRAM

accept\_info

user information

applied

deposit

employee

employ & manager rel

manager

transaction info

record

transaction

deposit user information

user\_info

deposit

loan

**Schema Diagram:**

**User\_info**

user\_name

deposit\_u

about\_u

loan\_u

deposit\_amount

loan\_amount

pass

**loan**

loan\_user

loan\_amount

about

dates

**accept\_info**

user\_name

nid

address

branch

pass

**deposit**

deposit\_user

deposit\_amount

about

dates

**transaction**

policy\_user

transaction\_no

amount

where\_to

**employee**

emp\_id

name

branch

pass

**manager**

emp\_id

user\_name

transaction\_no

**record**

rec\_user

branch

datee

transaction\_no

**applied**

user\_name

nid

address

branch

pass

**Create table queries:**

create table applied (

user\_name varchar(150),

nid varchar(150),

address varchar(150),

branch varchar(150),

pass varchar(150),

CONSTRAINT PK\_Customer\_appl PRIMARY KEY (user\_name,nid)

);

create table accept\_info(

user\_name varchar(150),

nid varchar(150),

address varchar(150),

branch varchar(150),

pass varchar(150),

CONSTRAINT PK\_Customer\_acpt PRIMARY KEY (user\_name)

);

create table deposite(

deposite\_user varchar(150),

deposite\_amount money,

about varchar(150),

dates date,

FOREIGN KEY (deposite\_user) REFERENCES accept\_info(user\_name),

CONSTRAINT PK\_deposite PRIMARY KEY (deposite\_user,deposite\_amount)

);

create table loan(

loan\_user varchar(150),

loan\_amount money,

about varchar(150),

dates date,

FOREIGN KEY (loan\_user) REFERENCES accept\_info(user\_name),

CONSTRAINT PK\_loan PRIMARY KEY (loan\_user,loan\_amount)

);

create table user\_info(

user\_name varchar(150),

deposite\_u varchar(150),

about\_u varchar,

loan\_u varchar(150),

deposite\_amount money,

loan\_amount money,

FOREIGN KEY (user\_name) REFERENCES accept\_info(user\_name),

FOREIGN KEY (deposite\_u,deposite\_amount) REFERENCES deposite(deposite\_user,deposite\_amount),

FOREIGN KEY (loan\_u,loan\_amount) REFERENCES loan(loan\_user,loan\_amount),

CONSTRAINT PK\_user\_info PRIMARY KEY (user\_name)

);

create table employee(

emp\_id varchar(150),

name varchar(150),

branch varchar(150),

pass varchar(150),

CONSTRAINT PK\_emp\_info PRIMARY KEY (emp\_id)

);

create table transection(

policy\_user varchar(150),

transection\_no int,

amount varchar(150),

where\_to varchar(150),

CONSTRAINT PK\_transection PRIMARY KEY (transection\_no),

FOREIGN KEY (policy\_user) REFERENCES accept\_info(user\_name)

);

create table record(

rec\_user varchar(150),

branch varchar(150),

datee date,

transection\_no int,

FOREIGN KEY (rec\_user) REFERENCES accept\_info(user\_name),

FOREIGN KEY (transection\_no) REFERENCES transection(transection\_no)

);

create table manager(

emp\_id varchar(150),

user\_name varchar(150),

transection\_no int,

FOREIGN KEY (emp\_id) REFERENCES employee(emp\_id),

FOREIGN KEY (transection\_no) REFERENCES transection(transection\_no),

FOREIGN KEY (user\_name) REFERENCES accept\_info(user\_name)

);

**Data Insert Queries:**

**insert into applied values('piyal','123450','Dhaka','Dhaka','1234a');**

**insert into applied values('tanvir','123451','Noakhali','Noakhali','1234b');**

**insert into applied values('dollar','123452','Feni','Feni','1234c');**

**insert into applied values('shahin','123453','Dhaka','Dhaka','1234d');**

**insert into applied values('anik','123450','Sylet','Sylet','1234e');**

**insert into accept\_info values('piyal','123450','Dhaka','Dhaka','1234a');**

**insert into accept\_info values('tanvir','123451','Noakhali','Noakhali','1234b');**

**insert into accept\_info values('dollar','123452','Feni','Feni','1234c');**

**insert into accept\_info values('shahin','123453','Dhaka','Dhaka','1234d');**

**insert into accept\_info values('anik','123450','Sylet','Sylet','1234e');**

**insert into deposite values('piyal',50000,'gsgsdgs','2008-11-11');**

**insert into deposite values('tanvir',45000,'gsgsdgs','2015-05-07');**

**insert into deposite values('dollar',90000,'gsgsdgs','2017-07-17');**

**insert into deposite values('shahin',67000,'gsgsdgs','2011-09-23');**

**insert into deposite values('anik',33000,'gsgsdgs','2018-02-03');**

**insert into loan values('piyal',43200,'sssssgf','2018-02-03');**

**insert into loan values('tanvir',78200,'sssssgf','2009-08-29');**

**insert into loan values('dollar',35000,'sssssgf','2001-12-22');**

**insert into loan values('shahin',22500,'sssssgf','2013-04-12');**

**insert into loan values('anik',75900,'sssssgf','2016-06-19');**

**insert into user\_info values('piyal','piyal','gsgsdgss','piyal',50000,43200);**

**insert into user\_info values('tanvir','tanvir','gsgsdgs','tanvir',45000,78200);**

**insert into user\_info values('dollar','dollar','gsgsdgs','dollar',90000,35000);**

**insert into user\_info values('shahin','shahin','gsgsdgs','shahin',67000,22500);**

**insert into user\_info values('anik','anik','gsgsdgs','anik',33000,75900);**

**select \* from user\_info**

**insert into transection values('piyal',010101,'50000','abc');**

**insert into transection values('tanvir',010102,'35000','xyz');**

**insert into transection values('shahin',010103,'59000','pqr');**

**insert into record values('piyal','Dhaka','2008-11-11',010101);**

**insert into record values('shahin','Dhaka','2011-09-23',010102);**

**insert into record values('tanvir','Noakhali','2015-05-07',010103);**

**insert into employee values('001','piyal','Noakhali','1234a');**

**insert into employee values('002','tanvir','Feni','1234a');**

**insert into employee values('003','shahin','Dhaka','1234a');**

**insert into manager values('001','piyal',010101);**

**insert into manager values('002','tanvir',010102);**

**insert into manager values('003','shahin',010103);**

**Query and Output:**

**select \* from [dbo].[accept\_info];**

**select \* from [dbo].[applied];**

**select \* from [dbo].[deposite];**

**select \* from [dbo].[employee];**

**select \* from [dbo].[loan];**

**select \* from [dbo].[manager];**

**select \* from [dbo].[record];**

**select \* from [dbo].[transection];**

**select \* from [dbo].[user\_info];**

**select loan\_user from loan where loan\_user like '%in%'**

**select sum (loan\_amount ) as TotalLoan from loan;**

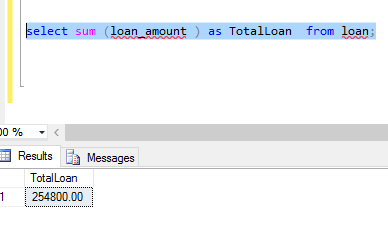
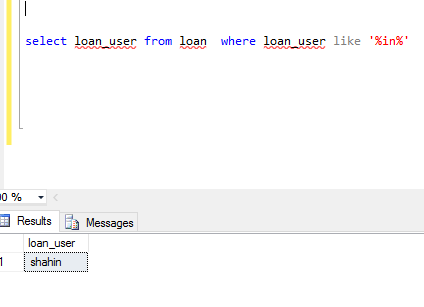
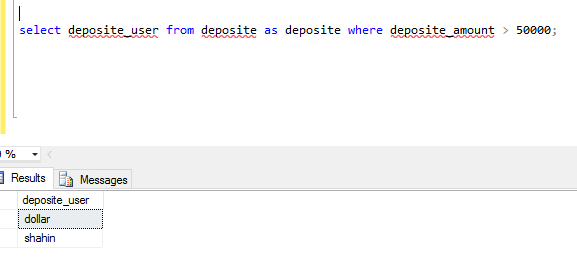
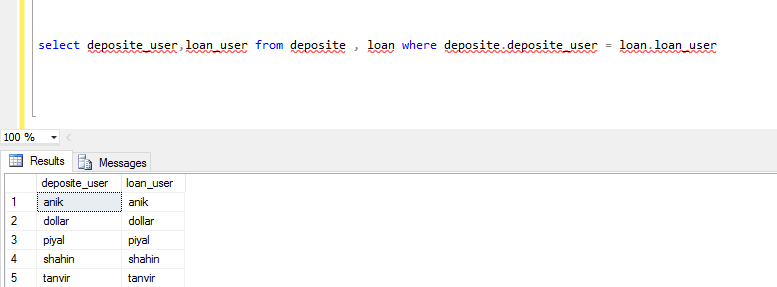
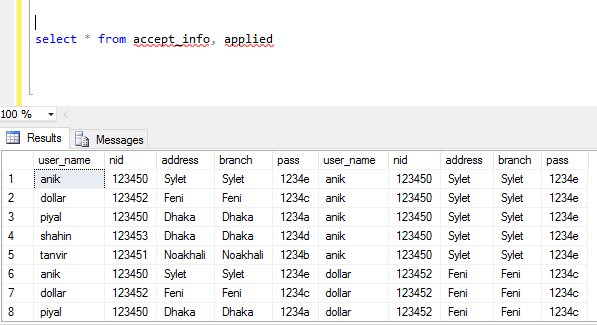
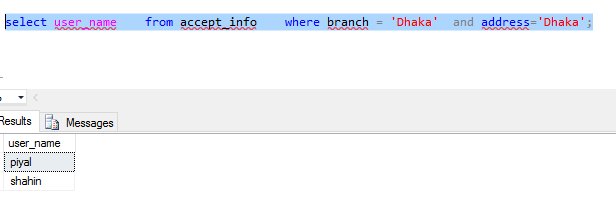
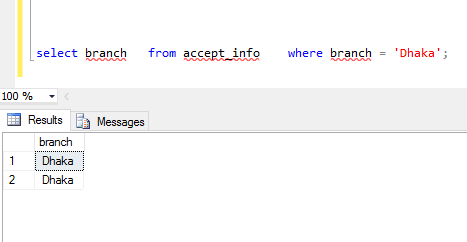
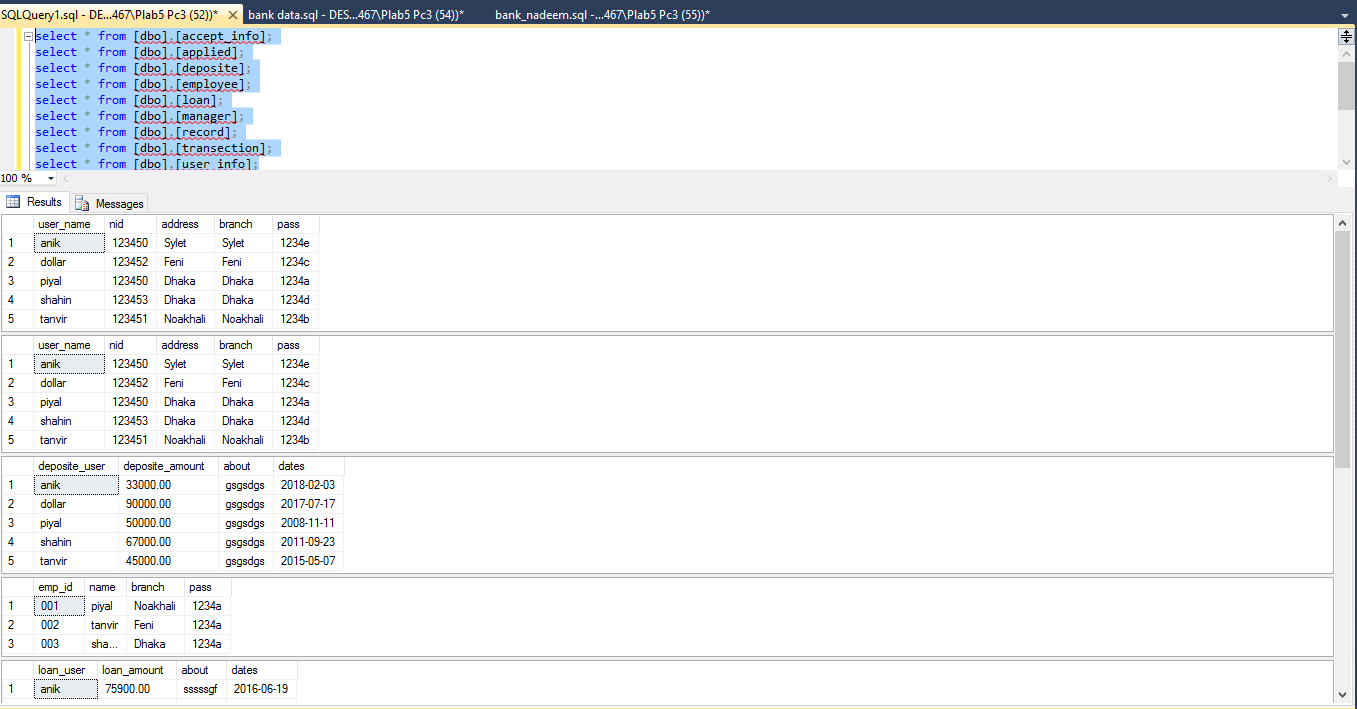
**select deposite\_user from deposite as deposite where deposite\_amount > 50000;**

**select \* from accept\_info, applied;**

**select branch from accept\_info where branch = 'Dhaka';**

**select user\_name from accept\_info where branch = 'Dhaka' and address='Dhaka';**

**select deposite\_user,loan\_user from deposite , loan where deposite.deposite\_user = loan.loan\_user**

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