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 that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank and is in contrast to branch banking which was the traditional way customers accessed banking services.

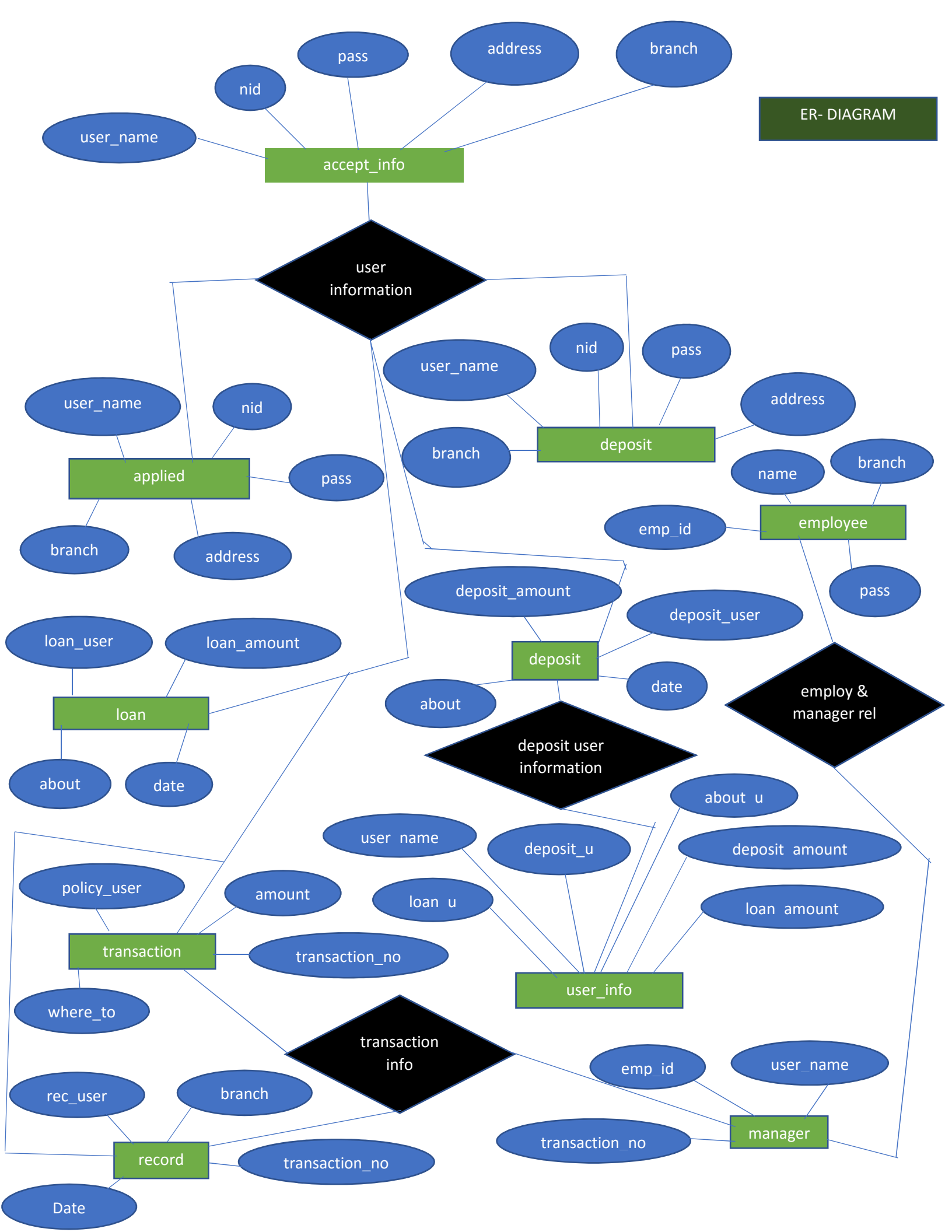
Today, "virtual banks" (or “direct banks”) have only an internet presence, which enables them to lower costs than traditional brick-and-mortar banks.

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 for customer verification. The credentials for online banking are normally not the same as for telephone or 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
pass
address
branch
nid
user_name
accept_info
user information
user_name
nid
pass
address
user_name
nid
branch
deposit
applied
pass
name
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branch
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emp_id
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deposit_user
loan_user
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date
about
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deposit user information
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user_name
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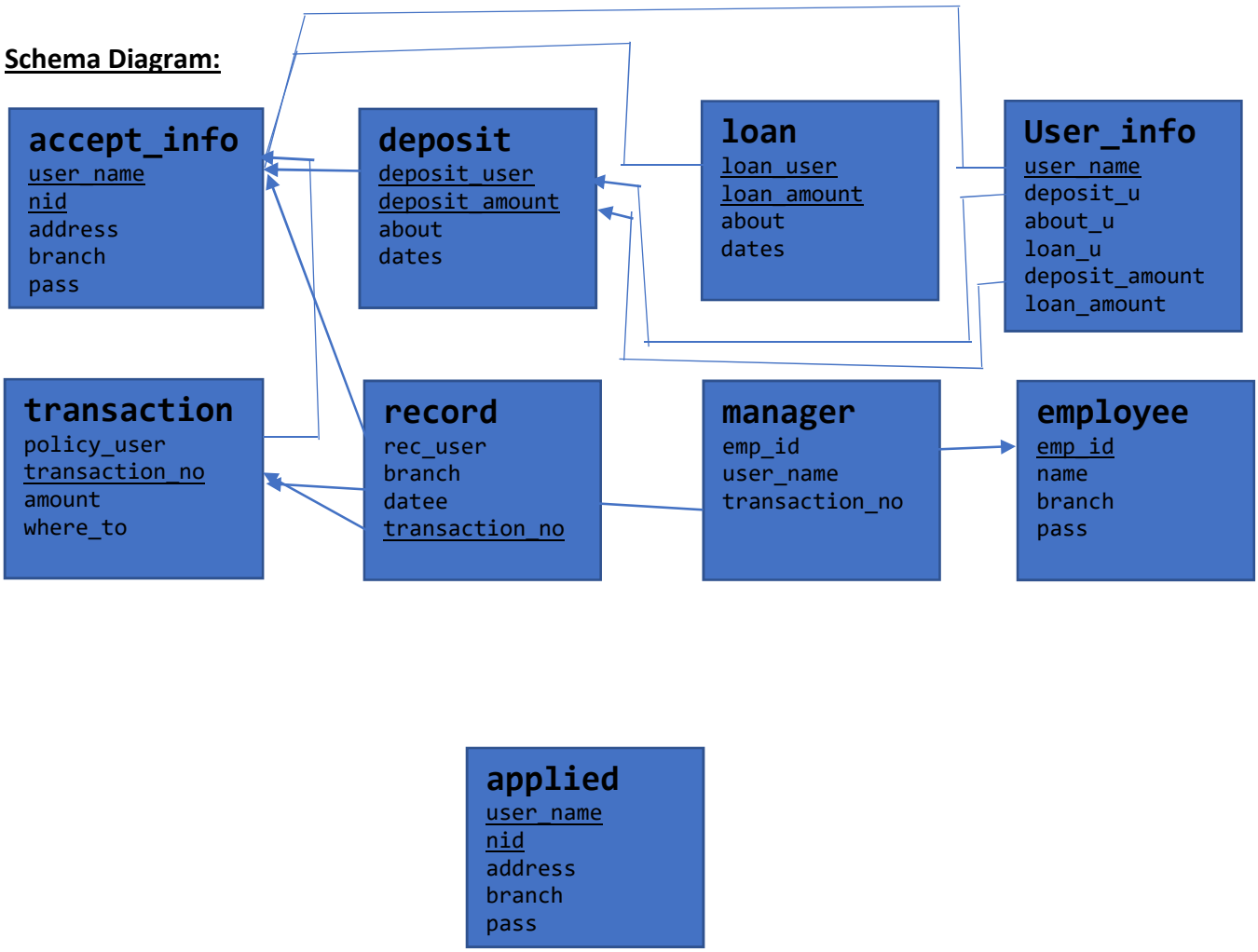
deposit_amount
policy_user
amount
loan_u
loan_amount
transaction
transaction_no
user_info
where_to
transaction info
emp_id
user_name
rec_user
branch
manager
transaction_no
record
transaction_no
Date

Schema Diagram:



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
```

SQLQuery1.sql - DE...467\Plab5 Pc3 (52))* | bank data.sql - DES...467\Plab5 Pc3 (54))* | bank_nadeem.sql -...467\Plab5 Pc3 (55))*

```
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];
```

100 %

Results | Messages

	user_name	nid	address	branch	pass
1	anik	123450	Sylet	Sylet	1234e
2	dollar	123452	Feni	Feni	1234c
3	piyal	123450	Dhaka	Dhaka	1234a
4	shahin	123453	Dhaka	Dhaka	1234d
5	tanvir	123451	Noakhali	Noakhali	1234b

	user_name	nid	address	branch	pass
1	anik	123450	Sylet	Sylet	1234e
2	dollar	123452	Feni	Feni	1234c
3	piyal	123450	Dhaka	Dhaka	1234a
4	shahin	123453	Dhaka	Dhaka	1234d
5	tanvir	123451	Noakhali	Noakhali	1234b

	deposite_user	deposite_amount	about	dates
1	anik	33000.00	gsgsdgs	2018-02-03
2	dollar	90000.00	gsgsdgs	2017-07-17
3	piyal	50000.00	gsgsdgs	2008-11-11
4	shahin	67000.00	gsgsdgs	2011-09-23
5	tanvir	45000.00	gsgsdgs	2015-05-07

	emp_id	name	branch	pass
1	001	piyal	Noakhali	1234a
2	002	tanvir	Feni	1234a
3	003	sha...	Dhaka	1234a

	loan_user	loan_amount	about	dates
1	anik	75900.00	sssssgf	2016-06-19

	loan_user	loan_amount	about	dates
1	anik	75900.00	sssssgf	2016-06-19
2	dollar	35000.00	sssssgf	2001-12-22
3	piyal	43200.00	sssssgf	2018-02-03
4	shahin	22500.00	sssssgf	2013-04-12
5	tanvir	78200.00	sssssgf	2009-08-29

	emp_id	user_name	transection_no
1	001	piyal	10101
2	002	tanvir	10102
3	003	shahin	10103

	rec_user	branch	datee	transection_no
1	piyal	Dhaka	2008-11-11	10101
2	shahin	Dhaka	2011-09-23	10102
3	tanvir	Noa...	2015-05-07	10103

	policy_user	transection_no	amount	where_to
1	piyal	10101	50000	abc
2	tanvir	10102	35000	xyz
3	shahin	10103	59000	pqr

	user_name	deposite_u	about_u	loan_u	deposite_amount	loan_amount
1	anik	anik	gsgsdgs	anik	33000.00	75900.00
2	dollar	dollar	gsgsdgs	dollar	90000.00	35000.00
3	piyal	piyal	gsgsd...	piyal	50000.00	43200.00
4	shahin	shahin	gsgsdgs	shahin	67000.00	22500.00
5	tanvir	tanvir	gsgsdgs	tanvir	45000.00	78200.00

```
select branch    from accept_info    where branch = 'Dhaka';
```

100 %

Results | Messages

	branch
1	Dhaka
2	Dhaka

```
select user_name    from accept_info    where branch = 'Dhaka'  and address='Dhaka';
```

Results | Messages

```
select * from accept_info, applied
```

100 %

Results | Messages

	user_name	nid	address	branch	pass	user_name	nid	address	branch	pass
1	anik	123450	Sylet	Sylet	1234e	anik	123450	Sylet	Sylet	1234e
2	dollar	123452	Feni	Feni	1234c	anik	123450	Sylet	Sylet	1234e
3	piyal	123450	Dhaka	Dhaka	1234a	anik	123450	Sylet	Sylet	1234e
4	shahin	123453	Dhaka	Dhaka	1234d	anik	123450	Sylet	Sylet	1234e
5	tanvir	123451	Noakhali	Noakhali	1234b	anik	123450	Sylet	Sylet	1234e
6	anik	123450	Sylet	Sylet	1234e	dollar	123452	Feni	Feni	1234c
7	dollar	123452	Feni	Feni	1234c	dollar	123452	Feni	Feni	1234c
8	piyal	123450	Dhaka	Dhaka	1234a	dollar	123452	Feni	Feni	1234c

```
select deposite_user,loan_user from deposite , loan where deposite.deposite_user = loan.loan_user
```

100 %

Results | Messages

	deposite_user	loan_user
1	anik	anik
2	dollar	dollar
3	piyal	piyal
4	shahin	shahin
5	tanvir	tanvir

```
select deposite_user from deposite as deposite where deposite_amount > 50000;
```

%

Results | Messages

deposite_user
dollar
shahin

```
select loan_user from loan  where loan_user like '%in%'
```

	loan_user
1	shahin

```
select sum (loan_amount ) as TotalLoan  from loan;
```

	TotalLoan
1	254800.00
