

**Core Java Project
On**

Simple banking Application

Guided By : Indrakka Mali

Presented By : Pranali More

(2022-8643)

Project Name : Simple Banking Application

Aim :

Using this system user can create new customer account and maintain its data efficiently and effectively. All records of account and customer are stored in separate files. Which are maintained **constantly update by system**

Languages : Core Java and SQL

Software Requirement : Eclipse IDE ,JDK 1.8 ,Mysql

Synopsis :

This is Mini Banking Application in java, to handle a transaction, we are using JDBC Transaction to make transactions consistent.

This Application Provides Menu-Driven Console Interface to a User
Using that User can perform functions like –

- create Account
- Login
- View Balance
- Deposit
- Withdraw
- Check Previous Transaction History

Module Description :

1. User fill the Registration form.
2. User Login.
3. Admin Login.

1. User fill the Registration form.

Firstly user Fill the registration Form and get UserId which is unique.

For registration form user enter some basic information like name, address, mob no, etc.

2. User Login.

For this User login process two credentials are required : Username and Password . After Successfully login, user want performed the following operations :

- Deposit Amount.
- Withdraw Amount.
- Check Total balance.
- Check Transaction History.

3. Admin Login :

For this admin login process two credentials are required : adminname and password . After Successfully login, Admin want performed the following operations :

- Create Account
- Delete Account

In Create Account Admin create user bank account using A/C no .

Admin have authority to delete user bank account.

Initial Setup:

(In Java)

Maven Project Name: Bank_Application_CoreProject

Package Name : com.edu

Class Name :

1. MainApplicationOfBank.java
2. UserLogin.java
3. DatabaseConnection.java
4. BankApplicationOperation.java
5. TransactionOperations.java
6. ReportOfBankApplication.java

(In database)

Create a database in mssql command line client

```
mysql> create database bankdb;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> show databases;
```

Database
bankdb
edubridgedb
hibernate_collegemanagement
hibernate_onetomany_3class
hibernate_onetomany_bidirection
hibernate_onetomany_unidir
hibernatedb
information_schema

Tables Creation :

```
mysql> use bankdb;
Database changed
mysql> show tables;
```

Tables_in_bankdb
account
accountholder
adminlogin
bankbranch
transdetails
userlogin

```
6 rows in set (0.06 sec)
```

Database Tables Structure:

```
mysql> desc Accountholder;
```

Field	Type	Null	Key	Default	Extra
userId	int	NO	PRI	NULL	
FName	varchar(50)	NO		NULL	
LName	varchar(50)	NO		NULL	
City	varchar(70)	NO		NULL	
mobNo	varchar(50)	NO	UNI	NULL	
Occupation	varchar(50)	NO		NULL	
DoB	date	YES		NULL	
password	varchar(50)	NO		NULL	

```
8 rows in set (0.06 sec)
```

```
mysql> desc userlogin;
```

Field	Type	Null	Key	Default	Extra
Uname	varchar(50)	YES		NULL	
Upass	varchar(50)	YES		NULL	
userId	int	YES	MUL	NULL	

```
3 rows in set (0.00 sec)
```

```
mysql> desc adminlogin;
```

Field	Type	Null	Key	Default	Extra
Aname	varchar(50)	YES		NULL	
Apass	varchar(50)	YES		NULL	

```
2 rows in set (0.01 sec)
```

```
mysql> desc account;
```

Field	Type	Null	Key	Default	Extra
AccountNo	varchar(50)	NO	PRI	NULL	
userId	int	YES	MUL	NULL	
bId	varchar(50)	YES	MUL	NULL	
Opening_Bal	int	NO		NULL	
AccountDate	date	YES		NULL	
AccountType	varchar(50)	NO		NULL	

```
6 rows in set (0.01 sec)
```

```
mysql> desc bankbranch;
```

Field	Type	Null	Key	Default	Extra
bId	varchar(50)	NO	PRI	NULL	
BName	varchar(50)	NO		NULL	
City	varchar(50)	NO		NULL	

3 rows in set (0.02 sec)

```
mysql> desc transdetails;
```

Field	Type	Null	Key	Default	Extra
Trsno	int	NO	PRI	NULL	auto_increment
AccountNo	varchar(50)	YES	MUL	NULL	
TransDate	date	NO		NULL	
mediumOfTrans	varchar(50)	YES		NULL	
TransType	varchar(50)	YES		NULL	
Trans_Amount	int	NO		NULL	

6 rows in set (0.01 sec)

Database Connection Class

DatabaseConnection.java

```
package com.edu;
```

```
import java.sql.*;
```

```
public class DatabaseConnection {
```

```
    public static Connection con;
```

```
    public static Connection getConnection() throws Exception {
```

```
        Class.forName("com.mysql.cj.jdbc.Driver");
```

```
        con=DriverManager.getConnection("jdbc:mysql://localhost:3306/bankdb","root","root");
```

```
        if(con==null) {
```

```
            System.out.println("Error in getting connection");
```

```
        }
```

```
        return con;
```

```
    }
```

```
}
```

Bank Application Core project Start execution through main() method.

MainApplicationOfBank.java

```
package com.edu;
import java.util.Scanner;
public class MainApplicationOfBank {

    public static void main(String[] args) throws Exception {
        int ch,Uch,Ach;
        Scanner sc=new Scanner(System.in);

        System.out.println("***** Welcome in Simple Bank Application Core Project
*****");
        while(true) {
            System.out.println("1.User Login");
            System.out.println("2.User Create Registration form");
            System.out.println("3.Admin Login");
            System.out.println("4.Exit");

            System.out.println("Enter your choice:");
            ch=sc.nextInt();
            switch(ch){
                case 1:UserLogin.loginMethod();
                break;
                case 2:UserLogin.registrationForm();
                break;
                case 3:UserLogin.adminLogin();
                break;
                case 4:System.out.println("System will be terminate!!!!");
                System.exit(0);
                break;
            }

            System.out.println("Do you want to continue n to stop any other key to
continue");
            char choice=sc.next().charAt(0);
            if(ch=='n') {
                break;
            }
        }
    }
}
```

Output-

```
Console X Problems Debug Shell
MainApplicationOfBank [Java Application] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (01-Apr-2023, 8:19:04 pm)
***** Welcome in Simple Bank Application Core Project *****
1.User Login
2.User Create Registration form
3.Admin Login
4.Exit
Enter your choice:
2
Enter UserId to be Registration form :
```

=====

Firstly User fill registration form and get userId

So Enter 2 choice : User create Registration form

In UserLogin.java class *registrationForm()* method

```
package com.edu;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.*;

public class UserLogin {

    static Scanner sc=new Scanner(System.in);
    static Connection con;
    static PreparedStatement psd;
    static ResultSet rs;
    static String s;

    public static void loginMethod() throws Exception {
        con=DatabaseConnection.getConnection();

        System.out.println("Enter UserName:");
        String username=sc.next();
        System.out.println("Enter Password:");
        String pass=sc.next();
        s="select * from Userlogin where Uname=? and Upass=?";
        psd=con.prepareStatement(s);
        psd.setString(1, username);
        psd.setString(2, pass);
        rs=psd.executeQuery();
```



```

if(rs.next()) {

    System.out.println("Login successfully !!!!!");
    System.out.println("=====");
    while(true) {
        System.out.println("**** Welcome in User Module ****");
        System.out.println("1.Deposit Amount");
        System.out.println("2.Withdraw Amount");
        System.out.println("3.Reports");
        System.out.println("4.Quit and go to back");
        System.out.println("What operation you want to do? so please enter
choice :");

        int Uch=sc.nextInt();

        switch(Uch) {

            case 1:TransactionOperations.depositAmount();
                break;
            case 2: TransactionOperations.withdrawAmount();
                break;
            case 3: ReportOfBankApplication.Reports();
                break;
            case 4:MainApplicationOfBank.main(null);
                break;
            }
            System.out.println("Do you want to perform other operatios 'n' to
stop any other key to continue:");
            char choice=sc.next().charAt(0);
            if(Uch=='n') {
                break;
            }

        }

    }else {
        System.out.println("Invalid Username and password");
    }

}

public static void registrationForm() throws Exception {

    BankApplicationOperation.registrationForm();
}

```

```

    }

    public static void adminLogin() throws Exception {
        con=DatabaseConnection.getconnection();

        System.out.println("Enter AdminName:");
        String adminname=sc.next();
        System.out.println("Enter Password:");
        String pass=sc.next();
        s="select * from Adminlogin where Aname=? and Apass=?";
        psd=con.prepareStatement(s);
        psd.setString(1, adminname);
        psd.setString(2, pass);
        rs=psd.executeQuery();
        if(rs.next()) {

            System.out.println("**** Welcome in Admin Module ****");
            System.out.println("1.Create Account");
            System.out.println("2.Delete Account");
            System.out.println("3.Quit and go to back");

            System.out.println("What operation you want to do? so please enter
choice :");

            int Ach=sc.nextInt();

            switch(Ach){
                case 1:BankApplicationOperation.createAccount();
                break;
                case 2: BankApplicationOperation.deleteAccount();
                break;
                case 3:MainApplicationOfBank.main(null);
                break;
            }

        }else {
            System.out.println("Invalid Adminname and password..");
        }

    }

}

```

=====

Go to BankApplicationOperation.java and registrationForm() method

```
//****Create User Registration method
public static void registrationForm() throws Exception {
    con=DatabaseConnection.getConnection();
    int UserId;
    String FirstName,LastName,City,MobNo,Occupation,DOB,pass;

    Scanner sc=new Scanner(System.in);
    System.out.println("Enter UserId to be Registration form :");
    UserId=sc.nextInt();

    s="select * from AccountHolder where userId=?";
    psd=con.prepareStatement(s);
    psd.setInt(1, UserId);
    rs=psd.executeQuery();

    if(!rs.next()) {
        System.out.println("Enter User First Name:");
        FirstName=sc.next();
        System.out.println("Enter Last Name:");
        LastName=sc.next();
        System.out.println("Enter City:");
        City=sc.next();
        System.out.println("Enter Mobile Number:");
        MobNo=sc.next();
        System.out.println("Enter Occupation:");
        Occupation=sc.next();
        System.out.println("Enter User date of birth (yyyy-mm-
dd):");
        DOB=sc.next();
        System.out.println("Enter Password:");
        pass=sc.next();

        s="insert into AccountHolder values(?,?,?,?,?,?,?)";
        psd=con.prepareStatement(s);
        psd.setInt(1, UserId);
        psd.setString(2, FirstName);
        psd.setString(3, LastName);
        psd.setString(4, City);
        psd.setString(5, MobNo);
        psd.setString(6, Occupation);
        psd.setString(7, DOB);
        psd.setString(8,pass);
```

```

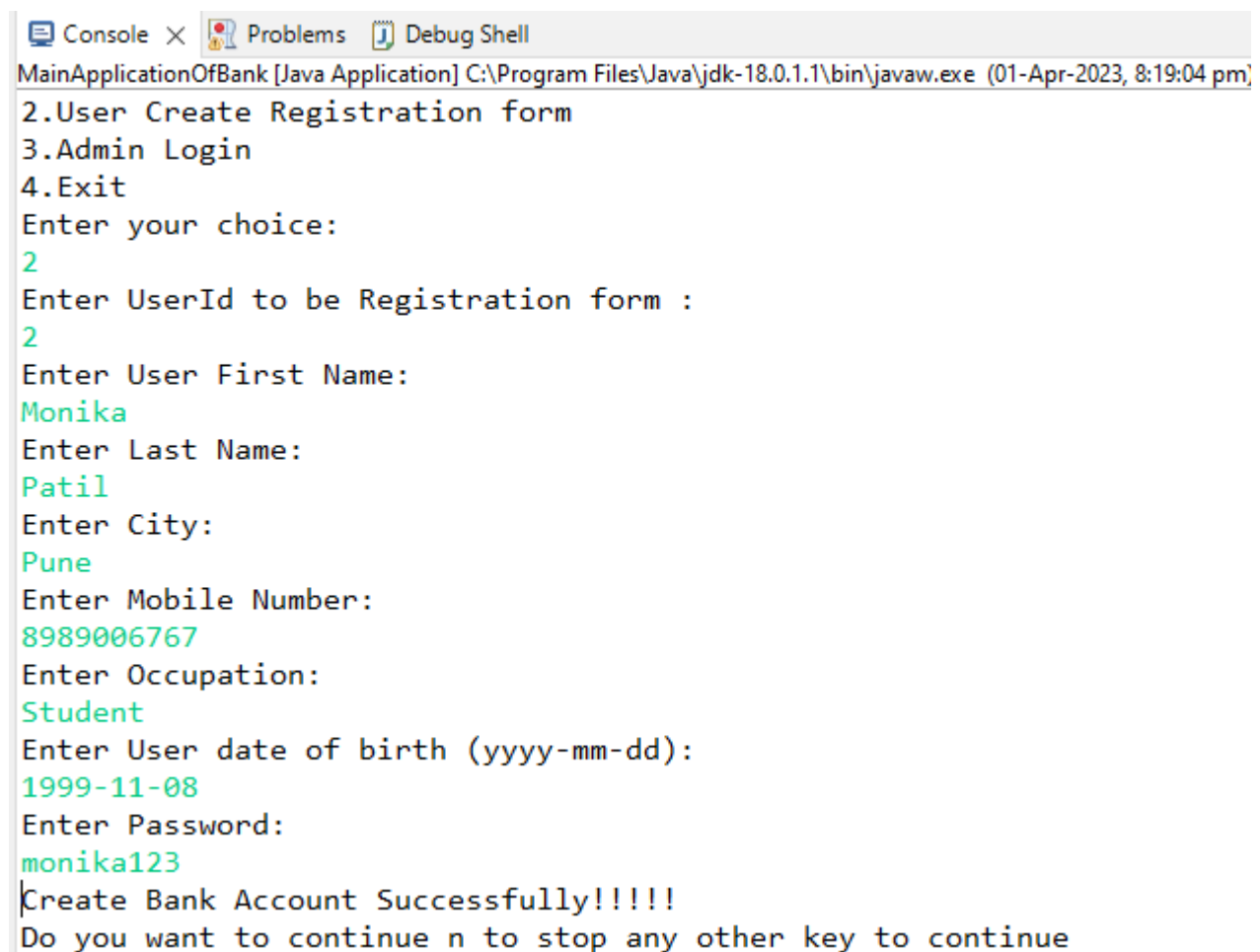
        int i=psd.executeUpdate();
        if(i>0) {
            System.out.println("Create Bank Account Successfully!!!!");
            s= "insert into userlogin values(?,?,?)";
            psd=con.prepareStatement(s);
            psd.setString(1, FirstName);
            psd.setString(2, pass);
            psd.setInt(3,UserId);
            psd.executeUpdate();
            // System.out.println("insert into login table ");
        }else {
            System.out.println("Error occured !!");
        }

        }else {
            System.out.println("User is already exist in
AccountHolder table");
        }

    }
}

```

Output :



The screenshot shows a Java application window titled 'MainApplicationOfBank [Java Application]'. The console output displays the following sequence of events:

```

MainApplicationOfBank [Java Application] C:\Program Files\Java\jdk-18.0.1.1\bin\javaw.exe (01-Apr-2023, 8:19:04 pm)
2.User Create Registration form
3.Admin Login
4.Exit
Enter your choice:
2
Enter UserId to be Registration form :
2
Enter User First Name:
Monika
Enter Last Name:
Patil
Enter City:
Pune
Enter Mobile Number:
8989006767
Enter Occupation:
Student
Enter User date of birth (yyyy-mm-dd):
1999-11-08
Enter Password:
monika123
Create Bank Account Successfully!!!!
Do you want to continue n to stop any other key to continue

```

After Fill Registration form by user data stored in Accountholder table in database.

```
mysql> select * from Accountholder;
+-----+-----+-----+-----+-----+-----+-----+-----+
| userId | FName | LName | City | mobNo | Occupation | DoB | password |
+-----+-----+-----+-----+-----+-----+-----+-----+
|      1 | pranali | more | pune | 8989007676 | student | 1999-07-07 | pranali123 |
|      2 | Monika | Patil | Pune | 8989006767 | Student | 1999-11-08 | monika123 |
+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

And userid stored in login table in userlogin:

```
mysql> select * from userlogin;
+-----+-----+-----+
| Uname | Upass | userId |
+-----+-----+-----+
| pranali | pranali123 |      1 |
| Monika | monika123 |      2 |
+-----+-----+-----+
2 rows in set (0.01 sec)
```

And Admin login details stored in adminlogin table

```
mysql> select * from adminlogin;
+-----+-----+
| Aname | Apass |
+-----+-----+
| Admin | admin11 |
+-----+-----+
1 row in set (0.01 sec)
```

**After Registration Admin Create bank account of user and Through A/c number to user
Can perform transaction operations.**

```
//****Create Bank Account Method
public static void createAccount() throws Exception {
    con=DatabaseConnection.getconnection();
    int UserId,OpenBal ;
    String BankId,ACNo,Adate,Atype;

    Scanner sc=new Scanner(System.in);
    System.out.println("Enter User Id to be Create Bank Account:");
    UserId=sc.nextInt();
    System.out.println("Bank of Maharashtra:B101");
    System.out.println("Enter Bank Id to be check Bank Name:");
    BankId=sc.next();

    s="select * from AccountHolder where userId=?";
    s1="select * from BankBranch where bId=?";
    psd=con.prepareStatement(s);
    psd2=con.prepareStatement(s1);
    psd.setInt(1, UserId);
    psd2.setString(1, BankId);
    rs=psd.executeQuery();
    rs2=psd2.executeQuery();

    if(rs.next()) {
        if(rs2.next()) {
            System.out.println("Enter Account Number in form XX201:");
            ACNo=sc.next();
            PreparedStatement psd1;
            s="select * from Account where AccountNo=?";
            psd1=con.prepareStatement(s);
            psd1.setString(1, ACNo);
            ResultSet rs1=psd1.executeQuery();
            if(!rs1.next()) {
                System.out.println("Enter opening Balance Amount:");
                OpenBal=sc.nextInt();
                System.out.println("Enter Date:(yyyy-mm-dd)");
                Adate=sc.next();
                System.out.println("Enter Account type:(saving or current)");
                Atype=sc.next();
                s="insert into Account values(?,?,?,?,?)";
                psd=con.prepareStatement(s);
                psd.setString(1,ACNo);
                psd.setInt(2,UserId);
                psd.setString(3,BankId);
                psd.setInt(4,OpenBal);
                psd.setString(5,Adate);
```

```

psd.setString(6,Atype);
if(OpenBal>500) {
int i=psd.executeUpdate();
if(i>0) {
System.out.println("Create Account Successfully!!!!");
}else {
System.out.println("Error Occured!!");
}
}else {
System.out.println("opening balance should be a greater 500");
}
}else {
System.out.println("Already Account is Created!!");
}
}
}else {
System.out.println("Please, fill the registration form");
}
}
}

```

Output-

```

MainApplicationOfBank [Java Application] C:\Program Files\Java\jdk-18.0.1.1\bin\javaw.exe (01-Apr-2023, 11:33:15 pm)
Enter your choice:
3
Enter AdminName:
admin
Enter Password:
admin11
**** Welcome in Admin Module ****
1.Create Account
2.Delete Account
3.Quit and go to back
What operation you want to do? so please enter choice :
1
Enter User Id to be Create Bank Account:
2
Bank of Maharashtra:B101
Enter Bank Id to be check Bank Name:
B101
Enter Account Number in form XX201:
XX2021
Enter opening Balance Amount:
10000
Enter Date:(yyyy-mm-dd)
2023-03-01
Enter Account type:(saving or current)
saving
Create Account Successfully!!!!
Do you want to continue n to stop any other key to continue

```

After Create account by user data stored in Account table in database.

```
mysql> select * from Account;
+-----+-----+-----+-----+-----+-----+
| AccountNo | userId | bId | Opening_Bal | AccountDate | AccountType |
+-----+-----+-----+-----+-----+-----+
| XX2020 | 1 | B101 | 1100 | 2023-03-11 | saving |
| XX2021 | 2 | B101 | 10000 | 2023-03-01 | saving |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

=====

After create account user can login and perform transaction operations like withdraw ,deposit ,check balance etc.

TransactionOperations.java

1. Deposite Amount :

```
package com.edu;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.Scanner;

public class TransactionOperations {

    static Connection con;
    static PreparedStatement psd,psd2;
    static ResultSet rs,rs2;
    static String s;

    //*****Deposit Amount method
    public static void depositeAmount() throws Exception {

        con=DatabaseConnection.getconnection();
        String ACNo,Tno,Tdate,Tmedium,Ttype;
        int Tamount;

        Scanner sc=new Scanner(System.in);
        System.out.println("Enter Account Number For transaction:");
        ACNo=sc.next();

        PreparedStatement psd;
```



```

s="Select * from Account where AccountNo=?";
psd=con.prepareStatement(s);
psd.setString(1, ACNo);
ResultSet rs=psd.executeQuery();
if(rs.next()) {
System.out.println("Enter Date:(yyyy-mm-dd)");
Tdate=sc.next();
System.out.println("Enter medium of transation (Cash/Check):");
Tmedium=sc.next();
System.out.println("Enter Type of transation (Deposit/Withdraw):");
Ttype=sc.next();
System.out.println("Enter Amount of trnasation :");
Tamount=sc.nextInt();

String ins="insert into TransDetails
(AccountNo,TransDate,mediumOfTrans,TransType,Trans_Amount)
values(?,?,?,?,?)";
psd=con.prepareStatement(ins);
psd.setString(1, ACNo);
psd.setString(2, Tdate);
psd.setString(3, Tmedium);
psd.setString(4, Ttype);
psd.setInt(5, Tamount);
if(Tamount>0) {
int i=psd.executeUpdate();
if(i>0) {
String type="Select TransType from TransDetails where AccountNo=?";
psd=con.prepareStatement(type);
psd.setString(1,ACNo);
ResultSet rs2=psd.executeQuery();
if(rs2.next()) {
String Transtype=rs2.getString("TransType");
//    System.out.println("Transaction type="+Transtype);

if(Transtype.equals(Ttype)) {

String bal="Select Opening_Bal from Account where AccountNo=?";
psd=con.prepareStatement(bal);
psd.setString(1,ACNo);
ResultSet rs3=psd.executeQuery();
if(rs3.next()) {
int Balance=rs3.getInt("Opening_Bal");
Balance =Balance + Tamount;
System.out.println("Total balace="+Balance);

String upd="update Account set Opening_Bal=? where AccountNo=?";
psd=con.prepareStatement(upd);
psd.setInt(1,Balance);

```

```

psd.setString(2,ACNo);
int i1=psd.executeUpdate();
if(i>0) {
System.out.println("Deposit Amount Successfull!!");
} else {
System.out.println("Error occurred!!!");
}
}
}

}

}

}else {
System.out.println("please Enter deposit amount in correct way.");
}
}
} //end deposit method

}

```

Output -

```

Do you want to continue n to stop any other key to continue
1
1.User Login
2.User Create Registration form
3.Admin Login
4.Exit
Enter your choice:
1
Enter UserName:
monika
Enter Password:
monika123
Login successfully !!!!
=====
**** Welcome in User Module ****
1.Deposit Amount
2.Withdraw Amount
3.Reports
4.Quit and go to back
What operation you want to do? so please enter choice :

```

```

=====
**** Welcome in User Module ****
1.Deposite Amount
2.Withdraw Amount
3.Reports
4.Quit and go to back
What operation you want to do? so please enter choice :
1
Enter Account Number For transaction:
XX2021
Enter Date:(yyyy-mm-dd)
2023-03-02
Enter medium of transation (Cash/Check):
Cash
Enter Type of transation (Deposit/Withdraw):
Deposit
Enter Amount of trnasation :
500
Total balace=10500
Deposite Amount Successfull!!
Do you want to perform other operatios 'n' to stop any other key to continue:

```

After Deposite amount by user through login . data are stored in transdetiles table in database.

```

mysql> select * from transdetails;
+-----+-----+-----+-----+-----+-----+
| Trsno | AccountNo | TransDate | mediumOfTrans | TransType | Trans_Amount |
+-----+-----+-----+-----+-----+-----+
| 15 | XX2020 | 2023-03-12 | cash | Deposit | 200 |
| 16 | XX2020 | 2023-03-15 | cash | Withdraw | 100 |
| 17 | XX2021 | 2023-03-02 | Cash | Deposit | 500 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

```

And also Update in main balance in account table .

```
mysql> select * from Account;
```

AccountNo	userId	bId	Opening_Bal	AccountDate	AccountType
XX2020	1	B101	1100	2023-03-11	saving
XX2021	2	B101	10000	2023-03-01	saving

```
2 rows in set (0.01 sec)
```

```
mysql> select * from Account;
```

AccountNo	userId	bId	Opening_Bal	AccountDate	AccountType
XX2020	1	B101	1100	2023-03-11	saving
XX2021	2	B101	10500	2023-03-01	saving

```
2 rows in set (0.01 sec)
```

TransactionOperations.java

2.Withdraw Amount :

```
//*****Withdraw Amount method
public static void withdrawAmount() throws Exception {

    con=DatabaseConnection.getconnection();
    String ACNo,Tno = null,Tdate,Tmedium,Ttype;
    int Tamount;

    Scanner sc=new Scanner(System.in);
    System.out.println("Enter Account Number For transaction:");
    ACNo=sc.next();

    PreparedStatement psd;
    String s="Select * from Account where AccountNo=?";
    psd=con.prepareStatement(s);
    psd.setString(1, ACNo);
    ResultSet rs=psd.executeQuery();
    if(rs.next()) {
        System.out.println("Enter Date:(yyyy-mm-dd)");
        Tdate=sc.next();
```

```

System.out.println("Enter medium of transation (Cash/Check):");
Tmedium=sc.next();
System.out.println("Enter Type of transation (Deposit/Withdraw):");
Ttype=sc.next();
System.out.println("Enter Amount of trnasation :");
Tamount=sc.nextInt();

String ins="insert into TransDetails
(AccountNo,TransDate,mediumOfTrans,TransType,Trans_Amount) values(?,?,?,?,?)";
psd=con.prepareStatement(ins);
psd.setString(1, ACNo);
psd.setString(2, Tdate);
psd.setString(3, Tmedium);
psd.setString(4, Ttype);
psd.setInt(5, Tamount);

if(Tamount>0) {
int i=psd.executeUpdate();
if(i>0) {
String type="Select TransType from TransDetails where TransType=?";
psd=con.prepareStatement(type);
psd.setString(1,Ttype);
ResultSet rs2=psd.executeQuery();
if(rs2.next()) {
String Transtype=rs2.getString("TransType");
//    System.out.println("Transaction type="+Transtype);

if(Transtype.equals(Ttype)) {

String bal="Select Opening_Bal from Account where AccountNo=?";
psd=con.prepareStatement(bal);
psd.setString(1,ACNo);
ResultSet rs3=psd.executeQuery();
if(rs3.next()) {
int Balance=rs3.getInt("Opening_Bal");
if(Balance>Tamount) {
Balance =Balance - Tamount;
System.out.println("Total balace="+Balance);

String upd="update Account set Opening_Bal=? where AccountNo=?";
psd=con.prepareStatement(upd);
psd.setInt(1,Balance);
psd.setString(2,ACNo);
int i1=psd.executeUpdate();
if(i1>0) {
System.out.println("Withdraw Amount Successfull!!!");
}
}else {

```

```

System.out.println("Insuficient balance");
String del="delete from TransDetails where TransDate=?";
psd=con.prepareStatement(del);
psd.setString(1,Tdate);
int i2=psd.executeUpdate();
}
}
}
}
}

}else {
System.out.println("please Enter withdraw amount in correct way.");
}
}

} //end withdraw method

```

Output -

```

Do you want to perform other operatios 'n' to stop any other key to continue:
e
**** Welcome in User Module ****
1.Deposite Amount
2.Withdraw Amount
3.Reports
4.Quit and go to back
What operation you want to do? so please enter choice :
2
Enter Account Number For transaction:
XX2021
Enter Date:(yyyy-mm-dd)
2023-03-05
Enter medium of transation (Cash/Check):
Cash
Enter Type of transation (Deposit/Withdraw):
Withdraw
Enter Amount of trnasation :
200
Total balace=10300
Withdraw Amount Successfull!!
Do you want to perform other operatios 'n' to stop any other key to continue:

```

After Withdraw amount by user through login . data are stored in transdetiles table in database.

```
mysql> select * from transdetails;
```

Trsno	AccountNo	TransDate	mediumOfTrans	TransType	Trans_Amount
15	XX2020	2023-03-12	cash	Deposit	200
16	XX2020	2023-03-15	cash	Withdraw	100
17	XX2021	2023-03-02	Cash	Deposit	500
18	XX2021	2023-03-05	Cash	Withdraw	200

```
4 rows in set (0.00 sec)
```

And also Update in main balance in account table .

```
mysql> select * from Account;
```

AccountNo	userId	bId	Opening_Bal	AccountDate	AccountType
XX2020	1	B101	1100	2023-03-11	saving
XX2021	2	B101	10500	2023-03-01	saving

```
2 rows in set (0.01 sec)
```

```
mysql> select * from Account;
```

AccountNo	userId	bId	Opening_Bal	AccountDate	AccountType
XX2020	1	B101	1100	2023-03-11	saving
XX2021	2	B101	10300	2023-03-01	saving

```
2 rows in set (0.00 sec)
```

=====

ReportOfBankApplication.java

In ReportOfBankApplication.java User can check the reports . in which we can show the total A/C balance through A/C no . You can choice 3 , " Reports " and perform the operations

In reports ,you can have two choice:

1.Check balance

2.Check transaction History

```
package com.edu;
```

```
import java.sql.Connection;
```

```
import java.sql.PreparedStatement;
```

```
import java.sql.*;
```

```
import java.util.Scanner;
```

```
public class ReportOfBankApplication {
```

```
    static Connection con;
```

```
    public static void Reports() throws Exception {
```

```
        int ch;
```

```
        String ACNo;
```

```
        con = DatabaseConnection.getconnection();
```

```
        PreparedStatement psd;
```

```
        String s;
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("***** Reports Bank Application Core Project *****");
```

```
        while(true) {
```

```
            System.out.println("1.Check balance");
```

```
            System.out.println("2.Check Transaction History");
```

```
            System.out.println("3.Exit and go to main module");
```

```
            System.out.println("please enter choice for showing report :");
```

```
            ch = sc.nextInt();
```

```
            switch(ch) {
```

```
                case 1:
```

```
                    System.out.println("Enter Account Number :");
```

```
                    ACNo = sc.next();
```

```
                    s = "select ah.FName,ah.LName ,a.accountNo,a.opening_Bal from AccountHolder ah inner  
join Account a where ah.userId=a.userId and AccountNo=?";
```

```
// s="Select * from Account where AccountNo=?";
```

```
                    psd = con.prepareStatement(s);
```



```

psd.setString(1, ACNo);
ResultSet rs=psd.executeQuery();
System.out.println("FName\tLName\tA/CNo\tBalance");
System.out.println("=====");
if(rs.next()) {
System.out.println(rs.getString("FName")+"\t"+rs.getString("LName")+"\t"+rs.getString("
AccountNo")+"\t"+rs.getInt("Opening_Bal")+"\t");
}
break;

case 2:
System.out.println("Please Enter Account Number:");
ACNo=sc.next().toLowerCase();
s="select AccountNo,Trsno,TransDate,TransType,Trans_Amount from transdetails where
AccountNo=?";
psd=con.prepareStatement(s);
psd.setString(1, ACNo);
ResultSet rs1=psd.executeQuery();
System.out.println("A/CNo\tTrsId\tDate\tType\tAmount");
System.out.println("=====");
while(rs1.next()) {
System.out.println(rs1.getString("AccountNo")+"\t"+rs1.getInt("Trsno")+"\t"+rs1.getStrin
g("TransDate")+"\t"+rs1.getString("TransType")+"\t"+rs1.getInt("Trans_Amount")+"\t");
}
break;

case 3:
System.out.println("Close report");
MainApplicationOfBank.main(null);

} //end switch case
System.out.println();
} //end while loop
}
}

```

Output:

```
Do you want to perform other operatios 'n' to stop any other key to continue:
r
t **** Welcome in User Module ****
1.Deposite Amount
2.Withdraw Amount
3.Reports
4.Quit and go to back
What operation you want to do? so please enter choice :
3
**** Reports Bank Application Core Project ****
1.Check balance
2.Check Transaction History
3.Exit and go to main module
please enter choice for showing report :
1
Enter Account Number :
XX2021
FName   LName   A/CNo   Balance
=====
Monika  Patil   XX2021  10300
1.Check balance
2.Check Transaction History
3.Exit and go to main module
please enter choice for showing report :
```

And check Transaction History Output:

```
1.Check balance
2.Check Transaction History
3.Exit and go to main module
please enter choice for showing report :
```

2

Please Enter Account Number:

XX2021

A/CNo	TrsId	Date	Type	Amount
XX2021	17	2023-03-02	Deposit	500
XX2021	18	2023-03-05	Withdraw	200

```
1.Check balance
2.Check Transaction History
3.Exit and go to main module
please enter choice for showing report :
```

Admin have Authority to delete user account clear the data from database.

MainApplicationOfBank [Java Application] C:\Program Files\Java\jdk-18.0.1.1\bin\javaw.exe (01-Apr-2023, 11:33:15 pm)

***** Welcome in Simple Bank Application Core Project *****

- 1.User Login
- 2.User Create Registration form
- 3.Admin Login
- 4.Exit

Enter your choice:

3

Enter AdminName:

admin

Enter Password:

admin11

**** Welcome in Admin Module ****

- 1.Create Account
- 2.Delete Account
- 3.Quit and go to back

What operation you want to do? so please enter choice :

2

Enter Account No to deleted:

XX2021

delete transId successfully!!!!

delete account successfully!!!!

Enter UserId to be Registration form :

2

delete login creadantion successfully!!!!

delete userId successfully!!!!

Do you want to continue n to stop any other key to continue

In database, clear all data of that particular user.

```
mysql> select * from Accountholder;
+-----+-----+-----+-----+-----+-----+-----+-----+
| userId | FName  | LName | City  | mobNo   | Occupation | DoB       | password |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1      | pranali | more  | pune  | 8989007676 | student   | 1999-07-07 | pranali123 |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from Account;
+-----+-----+-----+-----+-----+-----+-----+
| AccountNo | userId | bId  | Opening_Bal | AccountDate | AccountType |
+-----+-----+-----+-----+-----+-----+-----+
| XX2020    | 1      | B101 | 1100        | 2023-03-11  | saving      |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from userlogin;
+-----+-----+-----+
| Uname  | Upass   | userId |
+-----+-----+-----+
| pranali | pranali123 | 1      |
+-----+-----+-----+
```

=====

Conclusion :

- Using the java code and database computerized Simple bank Application is performed.
- Every information's are stored in the database with help of this admin and User can perform all the operations.
- Finally with secured manner the order is successfully done without any interruptions.

Thank You !!!!