A Mini Project Report

On

**BANKING SYSTEM**

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**INTRODUCTION**

Online banking is the term used for the process by which a customer may perform banking operation remotely without visiting the Bank. Online banking, also known as virtual banking, internet banking or personal computer banking is an activity that is not new to banks or their customers. Banks have been providing their services to their customers electronically to their customers through software programs which helps the customers directly connect with the bank. In recent times, Cyber-attacks have also increased drastically which makes the customer privacy an important concern.

**ABSTRACT**

Banking sector is one of the fastest growing sectors and has been one of the most preferred avenues of employment. The days of running around a bank for receiving cheques and performing transactions has become a thing of the past. It has now become hassle free and just a click away. Most of the leading banks are going online which makes security the prime concern due to increasing cyber-crimes.

In our project, firstly, the user must register himself with our bank and login to his account to have access to all the functionalities we provide. After logging in successfully, he is provided with options like Deposit, Withdraw, Transfer, Display user details, Display Transaction details etc.,

This system is very convenient to all the users as we provide most of the facilities that a banking system provides to its customers. Moreover, we provide the customers the maximum security as we encrypt their personal information and store it.

**OBJECTIVE**

This System allows the customers to perform banking operations such as Deposit, Withdraw, Bank transfer, Display Transaction details and Transaction history.

**SYSTEM REQUIREMENTS**

**Hardware:**

* Minimum RAM required: 512 mb
* Minimum disk space required: 50 mb
* Input devices: Mouse, Keyboard
* Output devices: Monitor

**Software:**

* Eclipse IDE
* Windows 7 or above
* JAVA platform SE 8 or above

**MODULES USED**

* Customer Login
* Deposit
* Withdraw
* Transfer
* Display Customer Details
* Display Transaction Details
* Display Customer List

**CLASSES USED**

1. Final Class Variable\_Class

Static variables for storage.

1. Public Class banking\_main
2. Void main()
3. Void init\_var()
4. Public class login
5. Int Existing\_User(…)
6. Void register\_user()
7. String encrypt(…)
8. String Decrypt(…)
9. Public class transactions
10. Void Deposit(…)
11. Void Withdraw(…)
12. Public class transfer
13. Void TransferAmount(…)
14. Public class DisplayDetails
15. Void User\_Details(…)
16. Public class DisplayTransactionDetails
17. Void TransactionDetails(…)
18. Public class SortedLists

**CONCEPTS USED**

* In the login module, firstly we have used the InputStreamReader class and the BufferedReader classes to accept input from the user. Then, we have also used the Threads concept to introduce delay in our program and to format the printing style. Further, we have used the StringBuilder class to generate a random userID’s for our customers. For the security concern, we have encrypted the passwords of our customers using the “CipherText” algorithm. In order to facilitate the CipherText algorithm, we have used the StringBuilder class to generate a random “shift” each time a password is encrypted.
* In the Deposit module, Withdraw module and the Transfer module, we have used the LocalDateTime class to keep a track of the date and time of the transaction.
* In all the above modules, we have used the Array data structure to store the customer information throughout the program run. Also, we have used Exceptions such as IOException, InterruptedException, ClassNotFoundException, and NullPointerException to handle unexpected halts in the program.
* We have used the Inheritance concept by extending the Display user details module by the Display Transaction details module.
* In the Sorted User Lists module, we have used the TreeSet class within the Collection Framework to sort the customer details based on name(Alphabetical order) as well as the Current Balance by storing the objects in the TreeSet.
* All of these modules have been called in the main() method at appropriate times inside the Banking\_main class.
* In addition to all the concepts mentioned above, we have also used the files concept which serves as a database which is updated after every run.

**PROGRAM**

//Class Banking\_main

package javac;

import java.time.\*;

import java.util.\*;

import java.io.\*;

final class Variable\_class implements Serializable

{

static int runs = 0;

static String name\_arr[] = new String[20];

static String phone[] = new String[20];

static String userName\_arr[] = new String[20];

static int UID[] = new int[20];

static int pass\_shift\_arr[] = new int[20];

static String password\_arr[] = new String[20];

static int arr\_cnt = 0;

static double transaction\_arr[][] = new double[20][100];

static int transaction\_arr\_count[] = new int[20];

static LocalDateTime transaction\_arr\_DateTime[][] = new LocalDateTime[20][100];

static String transaction\_arr\_Str[][] = new String[20][100];

static double curr\_bal[] = new double[20];

}

public class Banking\_main implements Serializable

{

static void init\_var()throws ClassNotFoundException,FileNotFoundException,IOException

{

BufferedReader read = new BufferedReader(new FileReader("C:\\Users\\pc\\Desktop\\BANKING\_DATA.txt"));

Variable\_class.runs = Integer.parseInt(read.readLine());

System.out.println("runs : " + Variable\_class.runs);

if(Variable\_class.runs == 0)

return;

String nameString = read.readLine();

StringTokenizer tok = new StringTokenizer(nameString,";");

int i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.name\_arr[i] = tok.nextToken();

i++;

}

String phoneString = read.readLine();

tok = new StringTokenizer(phoneString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.phone[i] = tok.nextToken();

i++;

}

String unameString = read.readLine();

tok = new StringTokenizer(unameString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.userName\_arr[i] = tok.nextToken();

i++;

}

String uidString = read.readLine();

tok = new StringTokenizer(uidString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.UID[i] = Integer.parseInt(tok.nextToken());

i++;

}

String shiftString = read.readLine();

tok = new StringTokenizer(shiftString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.pass\_shift\_arr[i] = Integer.parseInt(tok.nextToken());

i++;

}

String passString = read.readLine();

tok = new StringTokenizer(passString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.password\_arr[i] = tok.nextToken();

i++;

}

String arrcnt = read.readLine();

StringTokenizer st = new StringTokenizer(arrcnt,";");

Variable\_class.arr\_cnt = Integer.parseInt(st.nextToken());

for(int j = 0 ; j < 20 ; j++)

{

String row\_String = read.readLine();

int k = 0;

tok = new StringTokenizer(row\_String,";");

while(tok.hasMoreTokens())

{

Variable\_class.transaction\_arr[j][k] = Double.parseDouble(tok.nextToken());

k++;

}

}

String tranArrcountString = read.readLine();

tok = new StringTokenizer(tranArrcountString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.transaction\_arr\_count[i] = Integer.parseInt(tok.nextToken());

i++;

}

//-------------------------------------------

//System.out.println(Variable\_class.transaction\_arr\_count[0]);

//-------------------------------------------

for(int j = 0; j < Variable\_class.arr\_cnt ; j++)

{

String row\_String = read.readLine();

int k = 0;

tok = new StringTokenizer(row\_String,";");

while(tok.hasMoreTokens() && k < Variable\_class.transaction\_arr\_count[j])

{

Variable\_class.transaction\_arr\_DateTime[j][k] = LocalDateTime.parse(tok.nextToken());

k++;

}

}

int rem = 20-Variable\_class.arr\_cnt;

String garbageString;

for(int l = 1;l<=rem;l++)

garbageString = read.readLine();

System.out.println(Variable\_class.transaction\_arr\_DateTime[19][0]);

for(int j = 0 ; j < 20 ;j++)

{

String row\_String = read.readLine();

int k = 0;

tok = new StringTokenizer(row\_String,";");

while(tok.hasMoreTokens() && k < Variable\_class.transaction\_arr\_count[j])

{

Variable\_class.transaction\_arr\_Str[j][k] = tok.nextToken();

k++;

}

}

String currbalString = read.readLine();

System.out.println(currbalString);

tok = new StringTokenizer(currbalString,";");

i = 0;

while(tok.hasMoreTokens())

{

Variable\_class.curr\_bal[i] = Double.parseDouble(tok.nextToken());

i++;

}

read.close();

}

static void debugCode()

{

for(int i = 0;i<20;i++)

{

//System.out.print(Variable\_class.name\_arr[i] + '\t');

//System.out.print(Variable\_class.UID[i] + '\t');

//System.out.print(Variable\_class.password\_arr[i]+'\n');

//System.out.println(Variable\_class.transaction\_arr[i]);

}

}

public static void main(String args[])throws IOException, InterruptedException, ClassNotFoundException

{

Banking\_main.init\_var();

Banking\_main.debugCode();

InputStreamReader read = new InputStreamReader(System.in);

BufferedReader br = new BufferedReader(read);

int login\_var;

do

{

System.out.println("\n\t\*\*\*\*\*YES BANK\*\*\*\*\*\*\n");

System.out.println("\t1.LOGIN\n\t2.REGISTER\n\t3.EXIT");

login\_var = Integer.parseInt(br.readLine());

if(login\_var == 1)

{

int login\_conf;

System.out.println("ENTER YOUR DETAILS: ");

System.out.println("USER ID: ");

int user\_id = Integer.parseInt(br.readLine());

System.out.println("PASSWORD: ");

String password = br.readLine();

login\_conf = login.Existing\_user(user\_id,password);//day1

System.out.print("AUTHENTICATING..");

for(int j = 0;j<4;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

Thread.sleep(500);

System.out.print("DONE!!\n");

if(login\_conf == 1)

{

System.out.println("\nLOGIN SUCCESSFUL!!\n");

System.out.print("GETTING STARTED");

for(int j = 0;j<7;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

Thread.sleep(500);

System.out.print("DONE!!\n");

int check\_ctr = 1;

do

{

int switch\_var;

System.out.println("\n\tAVAILABLE OPTIONS IN OUR BANKING SYSTEMS:\n");

System.out.println("\t1.DEPOSIT\n\t2.WITHDRAW\n\t3.TRANSFER TO ANOTHER USER\n\t4."

+ "DISPLAY USER DETAILS\n\t5.DISPLAY TRANSACTION DETAILS\n\t6.DISPLAY CUSTOMER LIST\n\t7.LOG OUT");

switch\_var = Integer.parseInt(br.readLine());

switch(switch\_var)

{

case 1:

//Implementing deposit Module;

Transactions.Deposit(user\_id);

break;

case 2:

//Implementing withdraw module;

Transactions.WithDraw(user\_id);

break;

case 3:

//Implementing transfer module;

Transfer.TransferAmount(user\_id);

break;

case 4:

//Implementing user details display module;

DisplayDetails.User\_Details(user\_id);

break;

case 5:

//Implementing transaction details display module;

DisplayTransactionDetails.Transaction\_Details(user\_id);

break;

case 6:

Sorted\_Lists.main(args);

break;

case 7:

System.out.print("LOGGING OUT..");

for(int j = 0;j<10;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

Thread.sleep(2000);

System.out.print("DONE!!\n");

System.out.println("THANK YOU FOR USING OUR SERVICES.\nLOOKING FORWARD TO HELP YOU :)");

check\_ctr = 0;

break;

}

}while(check\_ctr > 0);

}

else if(login\_conf == 2)

{

System.out.println("INCORRECT PASSWORD :( \nPLEASE TRY AGAIN \n");

continue;

}

else if(login\_conf == 3)

{

System.out.println("USER ACCOUNT DOES NOT EXIST :(");

int reg\_conf;

System.out.println("DO YOU WANT TO CREATE A NEW ACCOUNT?\n1.YES\t2.NO");

reg\_conf = Integer.parseInt(br.readLine());

if(reg\_conf == 1)

{

login.Register\_user();

}

else

{

System.out.println("THANK YOU FOR USING OUR SERVICES.\nLOOKING FORWARD TO HELP YOU :)\n");

}

}

}

else if(login\_var == 2)

{

System.out.println("HI , WELCOME TO YES BANK :)\n");

login.Register\_user();

System.out.println();

}

else

{

System.out.println("THANK YOU!!");

Variable\_class.runs++;

BufferedWriter out = new BufferedWriter(new FileWriter("C:\\Users\\pc\\Desktop\\BANKING\_DATA.txt"));

out.write(Integer.toString(Variable\_class.runs));

out.newLine();

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.name\_arr[i]+";");

}

out.newLine();

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.phone[i]+";");

}

out.newLine();

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.userName\_arr[i]+";");

}

out.newLine();

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.UID[i]+";");

}

out.newLine();

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.pass\_shift\_arr[i]+";");

}

out.newLine();

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.password\_arr[i]+";");

}

out.newLine();

out.write(Variable\_class.arr\_cnt+";");

out.newLine();

for(int i =0;i<20;i++)

{

for(int j = 0;j<100;j++)

{

out.write(Variable\_class.transaction\_arr[i][j] + ";");

}

out.newLine();

}

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.transaction\_arr\_count[i]+";");

}

out.newLine();

for(int i =0;i<20;i++)

{

for(int j = 0;j<100;j++)

{

out.write(Variable\_class.transaction\_arr\_DateTime[i][j] + ";");

}

out.newLine();

}

for(int i =0;i<20;i++)

{

for(int j = 0;j<100;j++)

{

out.write(Variable\_class.transaction\_arr\_Str[i][j] + ";");

}

out.newLine();

}

for(int i = 0;i<20;i++)

{

out.write(Variable\_class.curr\_bal[i]+";");

}

//out.newLine();

out.close();

System.exit(0);

}

}while(true);

}

}

//Class Login

package javac;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.io.\*;

import java.util.Arrays;

import java.util.\*;

import java.util.Random;

public class login

{

public static int Existing\_user(int uid,String pass)throws IOException

{

int ind = -1;

for(int i=0;i<Variable\_class.UID.length;i++)

{

if(Variable\_class.UID[i] == uid)

{

ind = i;

break;

}

}

if(ind >= 0)

{

String decrypt\_pass = login.Decrypt(Variable\_class.password\_arr[ind],Variable\_class.pass\_shift\_arr[ind]);

if(decrypt\_pass.equals(pass))

{

return 1;

}

else

{

return 2;

}

}

else

{

return 3;

}

}

public static void Register\_user()throws IOException,InterruptedException

{

String BUILDERSTRING = "1234567890";

InputStreamReader read = new InputStreamReader(System.in);

BufferedReader br1 = new BufferedReader(read);

System.out.print("PLEASE WAIT...");

for(int j = 0;j<4;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

System.out.println();

System.out.println("ENTER YOUR DETAILS: \n");

System.out.println("ENTER YOUR NAME: ");

Variable\_class.name\_arr[Variable\_class.arr\_cnt] = br1.readLine();

System.out.println("ENTER YOUR PHONE NUMBER: ");

Variable\_class.phone[Variable\_class.arr\_cnt] = br1.readLine();

System.out.println("SELECT YOUR USERNAME: ");

Variable\_class.userName\_arr[Variable\_class.arr\_cnt] = br1.readLine();

StringBuilder builder = new StringBuilder();

int uid\_len = 6;

while (uid\_len-- != 0)

{

int character = (int)(Math.random()\*BUILDERSTRING.length());

builder.append(BUILDERSTRING.charAt(character));

}

int uid\_gen = Integer.parseInt(builder.toString());

System.out.println("YOU USER ID IS: "+uid\_gen);

Variable\_class.UID[Variable\_class.arr\_cnt] = uid\_gen;

System.out.println("ENTER YOUR PASSWORD: ");

String user\_pass = br1.readLine();

Random random = new Random();

int rand\_shift = (random.nextInt(50)-25);

//int rand\_shift = 25;

String user\_pass\_encrypt = login.Encrypt(user\_pass,rand\_shift);

//System.out.println("create user shift:"+rand\_shift);

Variable\_class.pass\_shift\_arr[Variable\_class.arr\_cnt] = rand\_shift;

Variable\_class.password\_arr[Variable\_class.arr\_cnt] = user\_pass\_encrypt;

System.out.print("PLEASE WAIT WHILE WE CREATE YOUR ACCOUNT...");

for(int j = 0;j<6;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

Thread.sleep(1000);

System.out.print("ACCOUNT CREATED SUCCESSFULLY!!\n");

System.out.println();

Variable\_class.arr\_cnt += 1;

}

public static String Encrypt(String pass,int shift)

{

//System.out.println("Encrypt shift :" + shift);

String Pass\_encrypt = "";

for(int i=0;i<pass.length();i++)

{

char alpha = pass.charAt(i);

if(alpha >= 'a' && alpha <= 'z')

{

alpha = (char)(alpha + shift);

if(alpha < 'a')

{

alpha = (char)(alpha-'a' +'z' +1);

}

if(alpha > 'z')

{

alpha = (char)(alpha + 'a' - 'z' +1);

}

Pass\_encrypt += alpha;

}

else if(alpha >= 'A' && alpha <= 'Z')

{

alpha = (char)(alpha + shift);

if(alpha < 'A')

{

alpha = (char)(alpha-'a'+'z'+1);

}

if(alpha > 'Z')

{

alpha = (char)(alpha + 'A' - 'Z' +1);

}

Pass\_encrypt += alpha;

}

else

{

Pass\_encrypt += alpha;

}

}

//System.out.println(Pass\_encrypt);

return Pass\_encrypt;

}

public static String Decrypt(String pass,int shift)

{

//System.out.println("Decrypt shift :" + shift+ "decrypt pass: "+pass);

String Pass\_decrypt = "";

for(int i = 0;i < pass.length();i++)

{

char alpha = pass.charAt(i);

if(alpha >= 'a' && alpha <= 'z')

{

alpha = (char)(alpha - shift);

if(alpha < 'a')

{

alpha = (char)(alpha - 'a' + 'z' -1);

}

else if(alpha > 'z')

{

alpha = (char)(alpha + 'a' - 'z' - 1);

}

Pass\_decrypt += alpha;

}

else if(alpha >= 'A' && alpha <= 'Z')

{

alpha = (char)(alpha - shift);

if(alpha < 'A')

{

alpha = (char)(alpha - 'A' + 'Z' - 1);

}

if(alpha > 'Z')

{

alpha = (char)(alpha + 'A' - 'Z' - 1);

}

Pass\_decrypt += alpha;

}

else

{

Pass\_decrypt += alpha;

}

}

//System.out.println(Pass\_decrypt);

return Pass\_decrypt;

}

}

//Class Transactions

package javac;

import java.io.\*;

import java.time.\*;

public class Transactions

{

public static void Deposit(int uid)throws IOException,InterruptedException

{

InputStreamReader read = new InputStreamReader(System.in);

BufferedReader br2 = new BufferedReader(read);

int ind = -1;

for(int i=0;i<Variable\_class.UID.length;i++)

{

if(Variable\_class.UID[i] == uid)

{

ind = i;

break;

}

}

System.out.println("ENTER THE AMOUNT YOU WANT TO DEPOSIT: ");

double add\_bal = Double.parseDouble(br2.readLine());

int existing\_vars = Variable\_class.transaction\_arr\_count[ind];

//System.out.println("ex:"+existing\_vars);

Variable\_class.transaction\_arr[ind][existing\_vars] = add\_bal;

Variable\_class.transaction\_arr\_Str[ind][existing\_vars] = "Deposit";

LocalDateTime ob = LocalDateTime.now();

Variable\_class.transaction\_arr\_DateTime[ind][existing\_vars] = ob;

System.out.println("PREVIOUS BALANCE: Rs."+ Variable\_class.curr\_bal[ind]);

Variable\_class.curr\_bal[ind] += add\_bal;

System.out.print("\nPROCESSING");

for(int j = 0;j<6;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

Thread.sleep(1000);

System.out.print("DONE.\n");

System.out.println("TRANSACTION SUCCESSFUL.\n");

System.out.println();

System.out.println("CURRENT BALANCE: Rs."+Variable\_class.curr\_bal[ind]);

Variable\_class.transaction\_arr\_count[ind]++;

}

public static void WithDraw(int uid)throws IOException,InterruptedException

{

InputStreamReader read = new InputStreamReader(System.in);

BufferedReader br3 = new BufferedReader(read);

int ind = -1;

for(int i=0;i<Variable\_class.UID.length;i++)

{

if(Variable\_class.UID[i] == uid)

{

ind = i;

break;

}

}

System.out.println("CURRENT BALANCE: Rs."+ Variable\_class.curr\_bal[ind]);

/\*System.out.println("Enter the amount you want to Withdraw from your account:");\*/

double del\_bal = 0.0;

do

{

System.out.println("ENTER THE AMOUNT YOU WANT TO WITHDRAW: ");

del\_bal = Double.parseDouble(br3.readLine());

if(del\_bal <= Variable\_class.curr\_bal[ind])

{

break;

}

else

{

System.out.println("INSUFFICIENT BALANCE :( \nTRY AGAIN\n");

continue;

}

}while(true);

del\_bal \*= -1;

int existing\_vars = Variable\_class.transaction\_arr\_count[ind];

Variable\_class.transaction\_arr[ind][existing\_vars] = del\_bal;

Variable\_class.transaction\_arr\_Str[ind][existing\_vars] = "Withdraw";

LocalDateTime ob = LocalDateTime.now();

Variable\_class.transaction\_arr\_DateTime[ind][existing\_vars] = ob;

Variable\_class.curr\_bal[ind] += del\_bal;

System.out.print("PROCESSING...");

for(int j = 0;j<6;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

Thread.sleep(1000);

System.out.print("DONE.\n");

System.out.print("TRANSACTION SUCCESSFUL :)\n");

System.out.println();

System.out.println("NEW BALANCE: Rs."+Variable\_class.curr\_bal[ind]);

Variable\_class.transaction\_arr\_count[ind]++;

}

}

//Class Transfer

package javac;

import java.io.\*;

import java.time.\*;

public class Transfer

{

public static void TransferAmount(int giver\_id)throws IOException,InterruptedException

{

InputStreamReader read = new InputStreamReader(System.in);

BufferedReader br3 = new BufferedReader(read);

int giver\_ind = -1;

for(int i=0;i<Variable\_class.UID.length;i++)

{

if(Variable\_class.UID[i] == giver\_id)

{

giver\_ind = i;

break;

}

}

int rec\_ind = -1;

do

{

int rec\_id;

System.out.println("ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO: ");

rec\_id = Integer.parseInt(br3.readLine());

int ind1 = -1;

for(int i=0;i<Variable\_class.UID.length;i++)

{

if(Variable\_class.UID[i] == rec\_id)

{

ind1 = i;

break;

}

}

if(ind1 >= 0)

{

rec\_ind = ind1;

break;

}

else

{

System.out.println("\tUSER ID NOT FOUND :(\n\tDO YOU WANT TO TRY AGAIN?\n\t1.YES\t2.NO");

int ch = Integer.parseInt(br3.readLine());

if(ch == 1)

{

continue;

}

else

break;

}

}while(true);

if(rec\_ind >=0)

{

System.out.println("CURRENT BALANCE: Rs."+ Variable\_class.curr\_bal[giver\_ind]);

double tran\_amt = 0;

do

{

System.out.println("ENTER THE AMOUNT YOU WANT TO TRANSFER: ");

tran\_amt = Double.parseDouble(br3.readLine());

if(tran\_amt <= Variable\_class.curr\_bal[giver\_ind])

{

break;

}

else

{

System.out.println("INSUFFICIENT BALANCE :(\nTRY AGAIN");

continue;

}

}while(true);

int existing\_vars = Variable\_class.transaction\_arr\_count[giver\_ind];

Variable\_class.transaction\_arr[giver\_ind][existing\_vars] = (-1)\*tran\_amt;

Variable\_class.transaction\_arr\_Str[giver\_ind][existing\_vars] = "TRANSFERRED Rs."+tran\_amt+" TO USER: "+Variable\_class.UID[rec\_ind];

LocalDateTime ob = LocalDateTime.now();

Variable\_class.transaction\_arr\_DateTime[giver\_ind][existing\_vars] = ob;

Variable\_class.curr\_bal[giver\_ind] += (-1)\*tran\_amt;

Variable\_class.transaction\_arr\_count[giver\_ind]++;

int existing\_vars1 = Variable\_class.transaction\_arr\_count[rec\_ind];

Variable\_class.transaction\_arr[rec\_ind][existing\_vars1] = tran\_amt;

Variable\_class.transaction\_arr\_Str[rec\_ind][existing\_vars1] = "RECEIVED Rs."+tran\_amt+" FROM USER: "+Variable\_class.UID[giver\_ind];

//LocalDateTime ob = LocalDateTime.now();

Variable\_class.transaction\_arr\_DateTime[rec\_ind][existing\_vars1] = ob;

Variable\_class.curr\_bal[rec\_ind] += tran\_amt;

Variable\_class.transaction\_arr\_count[rec\_ind]++;

System.out.print("\nPROCESSING");

for(int j = 0;j<8;j++)

{

System.out.print(".");

Thread.sleep(1000);

}

System.out.print("DONE.\n");

Thread.sleep(1000);

System.out.print("TRANSACTION SUCCESSFUL :)\n");

}

}

}

//Class Display Details

package javac;

public class DisplayDetails

{

public static void User\_Details(int uid)

{

int ind = -1;

for(int i=0;i<Variable\_class.*UID*.length;i++)

{

if(Variable\_class.*UID*[i] == uid)

{

ind = i;

break;

}

}

System.*out*.println("\t\*\*\*\*\*USER DETAILS\*\*\*\*\*");

System.*out*.println("\n\tNAME: "+Variable\_class.*name\_arr*[ind]);

System.*out*.println("\tUSERNAME: "+Variable\_class.*userName\_arr*[ind]);

System.*out*.println("\tUSER ID: "+Variable\_class.*UID*[ind]);

System.*out*.println("\tPASSWORD(encrypted): "+Variable\_class.*password\_arr*[ind]);

}

}

//Class Display Transaction Details

package javac;

import java.io.\*;

public class DisplayTransactionDetails extends DisplayDetails

{

public static void Transaction\_Details(int uid)throws IOException,InterruptedException

{

int ind = -1;

for(int i=0;i<Variable\_class.*UID*.length;i++)

{

if(Variable\_class.*UID*[i] == uid)

{

ind = i;

break;

}

}

InputStreamReader read = new InputStreamReader(System.*in*);

BufferedReader br4 = new BufferedReader(read);

DisplayDetails.*User\_Details*(uid);

int ctr\_var = 0;

do

{

System.*out*.println("\n\tWHICH DETAILS DO YOU WANT TO KNOW?\n");

System.*out*.println("\t1.CURRENT BALANCE\n\t2.PREVIOUS TRANSACTION\n\t3.TRANSACTION HISTORY\n\t4.EXIT");

int tra\_var = Integer.*parseInt*(br4.readLine());

if(tra\_var == 1 || tra\_var == 2 || tra\_var == 3)

{

System.*out*.print("RETRIEVING INFORMATION...");

for(int j = 0;j<6;j++)

{

System.*out*.print(".");

Thread.*sleep*(1000);

}

Thread.*sleep*(1000);

System.*out*.print("DONE.\n");

System.*out*.println();

}

switch(tra\_var)

{

case 1:

System.*out*.println("CURRENT BALANCE: Rs."+Variable\_class.*curr\_bal*[ind]);

break;

case 2:

int cnt = Variable\_class.*transaction\_arr\_count*[ind] - 1;

String str = Variable\_class.*transaction\_arr\_Str*[ind][cnt];

if(str.contains("Deposit"))

{

System.*out*.println("DEPOSITED Rs."+Variable\_class.*transaction\_arr*[ind][cnt]+"\tTRANSACTION DATE AND TIME: "+Variable\_class.*transaction\_arr\_DateTime*[ind][cnt]);

}

else if(str.contains("Withdraw"))

{

System.*out*.println("WITHDREW Rs."+Variable\_class.*transaction\_arr*[ind][cnt]+"\tTRANSACTION DATE AND TIME: "+Variable\_class.*transaction\_arr\_DateTime*[ind][cnt]);

}

else

{

System.*out*.println(Variable\_class.*transaction\_arr\_Str*[ind][cnt]+"\tDate and time: "+Variable\_class.*transaction\_arr\_DateTime*[ind][cnt]);

}

break;

case 3:

int count = Variable\_class.*transaction\_arr\_count*[ind];

System.*out*.println("TRANSACTION HISTORY: \n");

for(int i = 0;i < count;i++)

{

String str2 = Variable\_class.*transaction\_arr\_Str*[ind][i];

if(str2.contains("Deposit"))

{

System.*out*.println("DEPOSITED Rs."+Variable\_class.*transaction\_arr*[ind][i]+"\tTRANSACTION DATE AND TIME: "+Variable\_class.*transaction\_arr\_DateTime*[ind][i]);

}

else if(str2.contains("Withdraw"))

{

System.*out*.println("WITHDREW Rs."+(-1)\*Variable\_class.*transaction\_arr*[ind][i]+"\tTRANSACTION DATE AND TIME: "+Variable\_class.*transaction\_arr\_DateTime*[ind][i]);

}

else

{

System.*out*.println(Variable\_class.*transaction\_arr\_Str*[ind][i]+"\tTRANSACTION DATE AND TIME: "+Variable\_class.*transaction\_arr\_DateTime*[ind][i]);

}

}

break;

case 4:

ctr\_var = 1;

break;

}

}while(ctr\_var == 0);

}

}

//Class Sorted User Lists

package javac;

import java.util.\*;

public class Sorted\_User\_Lists

{

String Name;

int UID;

double Bal;

Sorted\_User\_Lists(String name,int Uid1,double bal)

{

Name = name;

UID = Uid1;

Bal = bal;

}

public String toString()

{

return UID + " \t " + Name + " \t " + Bal+"\n";

}

}

class Sort\_Bal implements Comparator<Sorted\_User\_Lists>

{

public int compare(Sorted\_User\_Lists a, Sorted\_User\_Lists b)

{

double a1,b1;

a1 = a.Bal;

b1 = b.Bal;

if(a1>b1)

return 1;

else

return -1;

}

}

class Sort\_Name implements Comparator<Sorted\_User\_Lists>

{

public int compare(Sorted\_User\_Lists a, Sorted\_User\_Lists b)

{

String a1,b1;

a1 = a.Name;

b1 = b.Name;

if(a1.compareTo(b1) > 0)

return 1;

else

return -1;

}

}

class Sorted\_Lists

{

public static void main(String args[])throws NullPointerException

{

TreeSet<Sorted\_User\_Lists> ts1 = new TreeSet<Sorted\_User\_Lists>(new Sort\_Bal());

TreeSet<Sorted\_User\_Lists> ts2 = new TreeSet<Sorted\_User\_Lists>(new Sort\_Name());

int Set\_choice;

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

System.*out*.println("\tON WHAT BASIS DO YOU WANT TO SEE THE DETAILS:");

System.*out*.println("\t1.ALPHABETICAL ORDER\n\t2.BALANCE");

Set\_choice = sc.nextInt();

switch(Set\_choice)

{

case 1:

for(int i = 0;i<Variable\_class.*arr\_cnt*;i++)

{

Sorted\_User\_Lists ob = new Sorted\_User\_Lists(Variable\_class.*name\_arr*[i],Variable\_class.*UID*[i],Variable\_class.*curr\_bal*[i]);

ts2.add(ob);

}

System.*out*.println("\nUSERID\tNAME\tBALANCE");

for(Sorted\_User\_Lists o : ts2)

{

System.*out*.print(o);

}

break;

case 2:

for(int i = 0;i<Variable\_class.*arr\_cnt*;i++)

{

Sorted\_User\_Lists ob = new Sorted\_User\_Lists(Variable\_class.*name\_arr*[i],Variable\_class.*UID*[i],Variable\_class.*curr\_bal*[i]);

ts1.add(ob);

}

System.*out*.println("\nUSERID\tNAME\tBALANCE");

for(Sorted\_User\_Lists o : ts1)

{

System.*out*.print(o);

}

break;

default:

System.*out*.println("WRONG CHOICE!!");

break;

}}

}

**OUTPUT OF THE PROGRAM**

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

2

HI , WELCOME TO YES BANK :)

PLEASE WAIT.......

ENTER YOUR DETAILS:

ENTER YOUR NAME:

akash vora

ENTER YOUR PHONE NUMBER:

6578975532

SELECT YOUR USERNAME:

akash\_vora

YOU USER ID IS: 979928

ENTER YOUR PASSWORD:

akash@123

PLEASE WAIT WHILE WE CREATE YOUR ACCOUNT.........ACCOUNT CREATED SUCCESSFULLY!!

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

2

HI , WELCOME TO YES BANK :)

PLEASE WAIT.......

ENTER YOUR DETAILS:

ENTER YOUR NAME:

abhinith bakshi

ENTER YOUR PHONE NUMBER:

9876567897

SELECT YOUR USERNAME:

abhinith\_bakshi

YOU USER ID IS: 212804

ENTER YOUR PASSWORD:

abhi\_123

PLEASE WAIT WHILE WE CREATE YOUR ACCOUNT.........ACCOUNT CREATED SUCCESSFULLY!!

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

2

HI , WELCOME TO YES BANK :)

PLEASE WAIT.......

ENTER YOUR DETAILS:

ENTER YOUR NAME:

nayan k

ENTER YOUR PHONE NUMBER:

6768759867

SELECT YOUR USERNAME:

123nayan

YOU USER ID IS: 405207

ENTER YOUR PASSWORD:

srinayan

PLEASE WAIT WHILE WE CREATE YOUR ACCOUNT.........ACCOUNT CREATED SUCCESSFULLY!!

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

2

HI , WELCOME TO YES BANK :)

PLEASE WAIT.......

ENTER YOUR DETAILS:

ENTER YOUR NAME:

rajesh r

ENTER YOUR PHONE NUMBER:

6758985645

SELECT YOUR USERNAME:

rajesh\_Reddy

YOU USER ID IS: 515404

ENTER YOUR PASSWORD:

rajesh

PLEASE WAIT WHILE WE CREATE YOUR ACCOUNT.........ACCOUNT CREATED SUCCESSFULLY!!

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

1

ENTER YOUR DETAILS:

USER ID:

876547

PASSWORD:

hello

AUTHENTICATING......DONE!!

USER ACCOUNT DOES NOT EXIST :(

DO YOU WANT TO CREATE A NEW ACCOUNT?

1.YES 2.NO

2

THANK YOU FOR USING OUR SERVICES.

LOOKING FORWARD TO HELP YOU :)

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

1

ENTER YOUR DETAILS:

USER ID:

979928

PASSWORD:

akash@123

AUTHENTICATING......DONE!!

LOGIN SUCCESSFUL!!

GETTING STARTED.......DONE!!

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

1

ENTER THE AMOUNT YOU WANT TO DEPOSIT:

100000

PREVIOUS BALANCE: Rs.0.0

PROCESSING......DONE.

TRANSACTION SUCCESSFUL.

CURRENT BALANCE: Rs.100000.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

1

ENTER THE AMOUNT YOU WANT TO DEPOSIT:

100000

PREVIOUS BALANCE: Rs.100000.0

PROCESSING......DONE.

TRANSACTION SUCCESSFUL.

CURRENT BALANCE: Rs.200000.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

2

CURRENT BALANCE: Rs.200000.0

ENTER THE AMOUNT YOU WANT TO WITHDRAW:

8657

PROCESSING.........DONE.

TRANSACTION SUCCESSFUL :)

NEW BALANCE: Rs.191343.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

212804

CURRENT BALANCE: Rs.191343.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

100000

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

657845

USER ID NOT FOUND :(

DO YOU WANT TO TRY AGAIN?

1.YES 2.NO

1

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

672145

USER ID NOT FOUND :(

DO YOU WANT TO TRY AGAIN?

1.YES 2.NO

2

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

405207

CURRENT BALANCE: Rs.91343.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

50000

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

515404

CURRENT BALANCE: Rs.41343.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

300000

INSUFFICIENT BALANCE :(

TRY AGAIN

ENTER THE AMOUNT YOU WANT TO TRANSFER:

30000

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

4

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: akash vora

USERNAME: akash\_vora

USER ID: 979928

PASSWORD(encrypted): xhxpe@123

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

5

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: akash vora

USERNAME: akash\_vora

USER ID: 979928

PASSWORD(encrypted): xhxpe@123

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

1

RETRIEVING INFORMATION.........DONE.

CURRENT BALANCE: Rs.11343.0

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

2

RETRIEVING INFORMATION.........DONE.

TRANSFERRED Rs.30000.0 TO USER: 515404 Date and time: 2020-11-24T00:46:38.812708100

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

3

RETRIEVING INFORMATION.........DONE.

TRANSACTION HISTORY:

DEPOSITED Rs.100000.0 TRANSACTION DATE AND TIME: 2020-11-24T00:42:48.922205600

DEPOSITED Rs.100000.0 TRANSACTION DATE AND TIME: 2020-11-24T00:43:10.796117

WITHDREW Rs.8657.0 TRANSACTION DATE AND TIME: 2020-11-24T00:43:40.716200300

TRANSFERRED Rs.100000.0 TO USER: 212804 TRANSACTION DATE AND TIME: 2020-11-24T00:44:35.164675300

TRANSFERRED Rs.50000.0 TO USER: 405207 TRANSACTION DATE AND TIME: 2020-11-24T00:45:43.580529200

TRANSFERRED Rs.30000.0 TO USER: 515404 TRANSACTION DATE AND TIME: 2020-11-24T00:46:38.812708100

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

4

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

7

LOGGING OUT............DONE!!

THANK YOU FOR USING OUR SERVICES.

LOOKING FORWARD TO HELP YOU :)

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

1

ENTER YOUR DETAILS:

USER ID:

212804

PASSWORD:

abhi\_123

AUTHENTICATING......DONE!!

LOGIN SUCCESSFUL!!

GETTING STARTED.......DONE!!

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

5

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: abhinith bakshi

USERNAME: abhinith\_bakshi

USER ID: 212804

PASSWORD(encrypted): xygh\_123

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

2

RETRIEVING INFORMATION.........DONE.

RECEIVED Rs.100000.0 FROM USER: 979928 Date and time: 2020-11-24T00:44:35.164675300

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

4

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

1

ENTER THE AMOUNT YOU WANT TO DEPOSIT:

23430

PREVIOUS BALANCE: Rs.100000.0

PROCESSING......DONE.

TRANSACTION SUCCESSFUL.

CURRENT BALANCE: Rs.123430.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

2

CURRENT BALANCE: Rs.123430.0

ENTER THE AMOUNT YOU WANT TO WITHDRAW:

4000

PROCESSING.........DONE.

TRANSACTION SUCCESSFUL :)

NEW BALANCE: Rs.119430.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

979928

CURRENT BALANCE: Rs.119430.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

30000

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

405207

CURRENT BALANCE: Rs.89430.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

12000

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

515404

CURRENT BALANCE: Rs.77430.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

10000

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

4

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: abhinith bakshi

USERNAME: abhinith\_bakshi

USER ID: 212804

PASSWORD(encrypted): xygh\_123

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

5

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: abhinith bakshi

USERNAME: abhinith\_bakshi

USER ID: 212804

PASSWORD(encrypted): xygh\_123

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

1

RETRIEVING INFORMATION.........DONE.

CURRENT BALANCE: Rs.67430.0

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

3

RETRIEVING INFORMATION.........DONE.

TRANSACTION HISTORY:

RECEIVED Rs.100000.0 FROM USER: 979928 TRANSACTION DATE AND TIME: 2020-11-24T00:44:35.164675300

DEPOSITED Rs.23430.0 TRANSACTION DATE AND TIME: 2020-11-24T00:50:14.637549800

WITHDREW Rs.4000.0 TRANSACTION DATE AND TIME: 2020-11-24T00:50:48.269138700

TRANSFERRED Rs.30000.0 TO USER: 979928 TRANSACTION DATE AND TIME: 2020-11-24T00:51:16.733316

TRANSFERRED Rs.12000.0 TO USER: 405207 TRANSACTION DATE AND TIME: 2020-11-24T00:52:03.309225600

TRANSFERRED Rs.10000.0 TO USER: 515404 TRANSACTION DATE AND TIME: 2020-11-24T00:52:41.149531100

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

2

RETRIEVING INFORMATION.........DONE.

TRANSFERRED Rs.10000.0 TO USER: 515404 Date and time: 2020-11-24T00:52:41.149531100

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

4

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

7

LOGGING OUT............DONE!!

THANK YOU FOR USING OUR SERVICES.

LOOKING FORWARD TO HELP YOU :)

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

1

ENTER YOUR DETAILS:

USER ID:

405207

PASSWORD:

srinayan

AUTHENTICATING......DONE!!

LOGIN SUCCESSFUL!!

GETTING STARTED.......DONE!!

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

3

ENTER THE USER ID TO WHICH YOU WANT TO TRANSFER TO:

979928

CURRENT BALANCE: Rs.62000.0

ENTER THE AMOUNT YOU WANT TO TRANSFER:

13450

PROCESSING........DONE.

TRANSACTION SUCCESSFUL :)

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

2

CURRENT BALANCE: Rs.48550.0

ENTER THE AMOUNT YOU WANT TO WITHDRAW:

5678

PROCESSING.........DONE.

TRANSACTION SUCCESSFUL :)

NEW BALANCE: Rs.42872.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

5

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: nayan k

USERNAME: 123nayan

USER ID: 405207

PASSWORD(encrypted): lkbgtrtg

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

1

RETRIEVING INFORMATION.........DONE.

CURRENT BALANCE: Rs.42872.0

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

3

RETRIEVING INFORMATION.........DONE.

TRANSACTION HISTORY:

RECEIVED Rs.50000.0 FROM USER: 979928 TRANSACTION DATE AND TIME: 2020-11-24T00:45:43.580529200

RECEIVED Rs.12000.0 FROM USER: 212804 TRANSACTION DATE AND TIME: 2020-11-24T00:52:03.309225600

TRANSFERRED Rs.13450.0 TO USER: 979928 TRANSACTION DATE AND TIME: 2020-11-24T00:55:08.430592800

WITHDREW Rs.5678.0 TRANSACTION DATE AND TIME: 2020-11-24T00:55:26.942042

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

4

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

7

LOGGING OUT............DONE!!

THANK YOU FOR USING OUR SERVICES.

LOOKING FORWARD TO HELP YOU :)

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

1

ENTER YOUR DETAILS:

USER ID:

515404

PASSWORD:

rajesh

AUTHENTICATING......DONE!!

LOGIN SUCCESSFUL!!

GETTING STARTED.......DONE!!

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

5

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: rajesh r

USERNAME: rajesh\_Reddy

USER ID: 515404

PASSWORD(encrypted): qzidrg

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

3

RETRIEVING INFORMATION.........DONE.

TRANSACTION HISTORY:

RECEIVED Rs.30000.0 FROM USER: 979928 TRANSACTION DATE AND TIME: 2020-11-24T00:46:38.812708100

RECEIVED Rs.10000.0 FROM USER: 212804 TRANSACTION DATE AND TIME: 2020-11-24T00:52:41.149531100

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

4

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

7

LOGGING OUT............DONE!!

THANK YOU FOR USING OUR SERVICES.

LOOKING FORWARD TO HELP YOU :)

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

1

ENTER YOUR DETAILS:

USER ID:

979928

PASSWORD:

akash@123

AUTHENTICATING......DONE!!

LOGIN SUCCESSFUL!!

GETTING STARTED.......DONE!!

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

5

\*\*\*\*\*USER DETAILS\*\*\*\*\*

NAME: akash vora

USERNAME: akash\_vora

USER ID: 979928

PASSWORD(encrypted): xhxpe@123

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

2

RETRIEVING INFORMATION.........DONE.

RECEIVED Rs.13450.0 FROM USER: 405207 Date and time: 2020-11-24T00:55:08.430592800

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

3

RETRIEVING INFORMATION.........DONE.

TRANSACTION HISTORY:

DEPOSITED Rs.100000.0 TRANSACTION DATE AND TIME: 2020-11-24T00:42:48.922205600

DEPOSITED Rs.100000.0 TRANSACTION DATE AND TIME: 2020-11-24T00:43:10.796117

WITHDREW Rs.8657.0 TRANSACTION DATE AND TIME: 2020-11-24T00:43:40.716200300

TRANSFERRED Rs.100000.0 TO USER: 212804 TRANSACTION DATE AND TIME: 2020-11-24T00:44:35.164675300

TRANSFERRED Rs.50000.0 TO USER: 405207 TRANSACTION DATE AND TIME: 2020-11-24T00:45:43.580529200

TRANSFERRED Rs.30000.0 TO USER: 515404 TRANSACTION DATE AND TIME: 2020-11-24T00:46:38.812708100

RECEIVED Rs.30000.0 FROM USER: 212804 TRANSACTION DATE AND TIME: 2020-11-24T00:51:16.733316

RECEIVED Rs.13450.0 FROM USER: 405207 TRANSACTION DATE AND TIME: 2020-11-24T00:55:08.430592800

WHICH DETAILS DO YOU WANT TO KNOW?

1.CURRENT BALANCE

2.PREVIOUS TRANSACTION

3.TRANSACTION HISTORY

4.EXIT

4

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

6

ON WHAT BASIS DO YOU WANT TO SEE THE DETAILS:

1.ALPHABETICAL ORDER

2.BALANCE

1

USERID NAME BALANCE

212804 abhinith bakshi 67430.0

979928 akash vora 54793.0

405207 nayan k 42872.0

515404 rajesh r 40000.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

6

ON WHAT BASIS DO YOU WANT TO SEE THE DETAILS:

1.ALPHABETICAL ORDER

2.BALANCE

2

USERID NAME BALANCE

515404 rajesh r 40000.0

405207 nayan k 42872.0

979928 akash vora 54793.0

212804 abhinith bakshi 67430.0

AVAILABLE OPTIONS IN OUR BANKING SYSTEMS:

1.DEPOSIT

2.WITHDRAW

3.TRANSFER TO ANOTHER USER

4.DISPLAY USER DETAILS

5.DISPLAY TRANSACTION DETAILS

6.DISPLAY CUSTOMER LIST

7.LOG OUT

7

LOGGING OUT............DONE!!

THANK YOU FOR USING OUR SERVICES.

LOOKING FORWARD TO HELP YOU :)

\*\*\*\*\*YES BANK\*\*\*\*\*\*

1.LOGIN

2.REGISTER

3.EXIT

3

THANK YOU!!

**FUTURE WORK**

We would like to extend this project by adding real time data storage applications using an online Database service such as MySQL.

**REFERENCES**

* Java: The Complete Reference 7th Edition by Herbert Schildt
* [**https://www.geeksforgeeks.com**](https://www.geeksforgeeks.com)
* [**https://www.javatpoint.com**](https://www.javatpoint.com)
* <https://docs.oracle.com/javase/tutorial/>
* <https://www.slideshare.net/>
* <https://stackoverflow.com/>