**SIMPLE BANKING SYSTEM**

**ABSTRACT**

The Bank Account Management System is an application for maintaining a person's account in a bank. In this project I tried to show the working of a banking account system and cover the basic functionality of a Bank Account Management System

Talking about the features of the Simple Banking System, a user can create an account by providing the personal details and will get Account Number in return. Existing user can also deposit and withdraw money just by providing the account number and entering the amount. Also, the user can update their details ,check their balance and delete his/her account.This simple console-based system provides the simplest management of bank account and transaction. In short, this project mainly focus on CRUD.

**The major modules of this system are as follows:**

* User: Class
* Address : Class
* BankingInterface : Interface
* Bank : Class
* Implementation : Class

Bank class Inherits the User class.

Bank class Implements BankingInterface and override its functions.

Bank class have “Has A relationship(Aggregation)” with Address Class.

Main Function exists in class Implementation.

**WORKFLOW DIAGRAM**

Interface :BANKINGINTERFACE

display();

**Bank Implements BankingInterface**

**Aggregation** **Inheritance:Bank Inherits User**

Class :BANK

Name

Address

Balance

info()

deposit()

withdraw()

display()

Class : ADDRESS

House

District

State

Pin

Constructor()

getHouse()

getDistrict()

getState()

getPin

 Class: USER

Accno

Ph

getPh()

setPh()

getAccno()

setAccno()

Class: IMPLEMENTATION

main()

**CODE**

**Interface:** BankingInterface

**package** bankpkg;

**public** **interface** BankingInterface {

**void** display();

}

**Class:** User

**package** bankpkg;

**public** **class** User {

**private** **long** accno;// Private members can't be accessed through inheritance,So giving getters and setters as pulic

**private** **long** ph;

**public** **long** getPh() {

**return** ph;

}

**public** **void** setPh(**long** ph) {

**this**.ph = ph;

}

**public** **long** getAccno() {

**return** accno;

}

**public** **void** setAccno(**long** accno) {

**this**.accno = accno;

}

}

**Class:** Address

**package** bankpkg;

**public** **class** Address {

String house;

String district;

String state;

**int** pin;

Address(String house,String district,String state,**int** pin) // Constructor using this object

{

**this**.house=house;

**this**.district=district;

**this**.state=state;

**this**.pin=pin;

}

**public** String gethouse() {

**return** house ;

}

**public** String getDistrict() {

**return** district;

}

**public** String getState() {

**return** state;

}

**public** **int** getPin() {

**return** pin;

}

}

**Class:** Bank

**package** bankpkg;

**public** **class** Bank **extends** User **implements** BankingInterface{ // inheritance

String name;

Address address; // Has-A relationship with class Address:aggregation

**double** balance;

**void** info(String na,**long** no,**long** pn,String h,String d,String st,**int** p,**int** n)// doing read and update in same function

{

name=na;

address= **new** Address(h,d,st,p);

**super**.setAccno(no); // Using super Keyword

setPh(pn);

**if**(n==1)

{

System.***out***.println(".....Successfully Registered.......");

}

**else** **if** (n==3)

{

System.***out***.println(".....Successfully Updated.......");

}

**else**

{

}

}

**void** deposit(**double** amount)

{

balance=balance+amount;

System.***out***.println("Successful Deposit!!....");

System.***out***.println();

System.***out***.println("Deposited Amount : Rs "+amount+" /only");

System.***out***.println("Current Balance : Rs "+balance+" /only");

}

**void** withdraw(**double** amount)

{

balance=balance-amount;

System.***out***.println("Successful Withdrawal!!....");

System.***out***.println();

System.***out***.println("Withdrawn Amount : Rs "+amount+" /only");

System.***out***.println("Current Balance : Rs "+balance+" /only");

}

@Override

**public**

**void** display()

{

System.***out***.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.***out***.println("DETAILS");

System.***out***.println();

System.***out***.println("Hi "+name);

System.***out***.println();

System.***out***.println("Account Number :"+getAccno());

System.***out***.println("Phone Number :"+getPh());

System.***out***.println("Address ");

System.***out***.println(" House :"+address.gethouse());

System.***out***.println(" District :"+address.getDistrict());

System.***out***.println(" State :"+address.getState());

System.***out***.println(" PIN :"+address.getPin());

System.***out***.println("Current Balance : Rs "+balance+" /only");

System.***out***.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

}

**Class:** Implementation

**package** bankpkg;

**import** java.util.Scanner;

**public** **class** Implementation {

**public** **static** **void** main(String[] args) {

String na,h,d,st;

**int** p;

**double** amount;

**int** n1,n2;

**char** c1,c2;

**long** num=1234;

**long** accno,pn;

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

Bank b =**new** Bank();

b.info("Athira",5678,8086565047L,"Pariyathukunnel","Kottayam","Kerala",686502,0);

b.balance=3000;

**do** {

System.***out***.println("//\*\*\*\*\*\* Welcome to SBI \*\*\*\*\*\*//");

System.***out***.println();

System.***out***.println("1. New Registration");

System.***out***.println("2. Login User");

System.***out***.println("Please Enter Your Choice : ");

n1 = s.nextInt();

**switch**(n1)

{

**case** 1:

{

System.***out***.println("Enter your Name:");

na = s.next();

System.***out***.println("Enter your Phone Number:");

pn = s.nextLong();

System.***out***.println("Enter your House Name:");

h = s.next();

System.***out***.println("Enter your District:");

d = s.next();

System.***out***.println("Enter your State:");

st = s.next();

System.***out***.println("Enter your PIN:");

p = s.nextInt();

b.info(na,num ,pn, h, d, st, p,n1);

b.balance=0;

System.***out***.println();

System.***out***.println("PLease Note,Your Account Number: "+b.getAccno());

System.***out***.println();

**break**;

}

**case** 2:

System.***out***.println("Enter your Account number:");

accno=s.nextLong();

**if**(accno==1234||accno==5678)

{ // opening if else loop

**do** {

System.***out***.println("//\*\*\*\*\* Welcome to SBI,ACCOUNT NUMBER : "+b.getAccno()+"//");// nested cases

System.***out***.println("1. Deposit");

System.***out***.println("2. Withdrawal");

System.***out***.println("3. Update Personal Details");

System.***out***.println("4. View Details/ Balance ");

System.***out***.println("5. Delete Account");

System.***out***.println("Please Enter Your Choice : ");

n2 = s.nextInt();

**switch**(n2)

{

**default**:System.***out***.println("Invalid Choice");

**break**;

**case** 1:

System.***out***.println("Please Enter Your Amount : ");

amount=s.nextDouble();

b.deposit(amount);

**break**;

**case** 2:

System.***out***.println("Please Enter Your Amount : ");

amount=s.nextDouble();

**if**(b.balance>amount)

{

b.withdraw(amount);

}

**else**

{

System.***out***.println("Sorry ..Insufficient Balance...");

System.***out***.println("Current Balance : Rs "+b.balance+" /only");

}

**break**;

**case** 3:

System.***out***.println("Enter your Name");

na = s.next();

System.***out***.println("Enter your Phone Number:");

pn = s.nextLong();

System.***out***.println("Enter your House Name:");

h = s.next();

System.***out***.println("Enter your District:");

d = s.next();

System.***out***.println("Enter your State:");

st = s.next();

System.***out***.println("Enter your PIN:");

p = s.nextInt();

b.info(na,accno ,pn, h, d, st, p,n2);

**break**;

**case** 4:

b.display();

**break**;

**case** 5:

b=**null**;

System.***out***.println("Account have got deleted...");

}// closing inner Switch

System.***out***.println("Do you want to continue?(Y/N): ");

c2=s.next().charAt(0);

}// closing inner do

**while**(c2=='y'||c2=='Y');

} // closing if

**else** {

System.***out***.println("Please Enter A valid Account Number!!!");

}

**break**;

**default**:System.***out***.println("Invalid Choice");

**break**;

}// closing outer Switch

System.***out***.println("Do you want to Logout?(Y/N): ");

c1=s.next().charAt(0);

}// closing outer do

**while**(c1=='n'||c1=='N');

s.close();

}

}