Lab Program-5

NAME: Anagha Acharya
USN: 1BM19BTOOS

```
import java.util.*;
class Account
{
 String name;
 int acc_no;
 char acc_type;
 double balance, deposit;
 boolean cheq;

void getc(char c)
 {
  if acc_type = c;
  if (c == 's' || c== 'S')
 cheq = false;
 else
 cheq = true;
 Scanner sc = new Scanner (System.in);
 System.out.println("Enter your name");
 name = sc.nextLine();
 System.out.println("Enter your account number");
 acc_no = sc.nextInt();
 System.out.println("Enter the current balance available");
 balance = sc.nextDouble();
 }

 void putd()
 {
 System.out.println("Account details");
 System.out.println("Name"+name);
 System.out.println("Account number: "+acc_no);
 System.out.println("Account type: "+acc_type);
 System.out.println("Balance = "+balance);
 }
void deposit()
{
 Scanner sc = new Scanner (System.in);
 System.out.println("Enter the amount to be deposited");
 deposit = sc.nextDouble();
```

```
balance = balance + deposit;
System.out.println("Amount has been deposited");
}
void display()
{
System.out.println("Balance amount=" +balance);
}
void check()
{
if(cheq==false)
System.out.println("Cheque book facility unavailable");
else
System.out.println("Cheque book facility available");
}
}
class Savings extends Account
{
double rate, s_withdraw, amt, t, pr;
int n, ch;
void ci()
{
Scanner sc = new Scanner(System.in);
System.out.println("Enter the principal deposit amount");
pr = sc.nextDouble();
System.out.println("Enter rate");
rate = sc.nextDouble();
System.out.println("Enter term in years");
t = sc.nextDouble();
System.out.println("Enter number of times interest is
compounded");
n = sc.nextInt();
amt = pr* Math.pow((1+(rate/100)),(n*t));
balance = balance + amt;
System.out.println("Interest is compounded and added
to the balance");
}
void with_s()
{
Scanner sc= new Scanner(System.in);
System.out.println("Enter the amount to be withdrawn");
s_withdrawn = sc.nextDouble;
```

```
if (S_withdraw>balance)
System.out.println ("Insufficient balance");
else
{
balance = balance- S_withdraw;
System.out.println("Amt has been withdrawn and
                    balance is updated");

  }
 }
}

class Current extends Account
{
double penalty, c_withdraw, min;
Current()
 {
   penalty =100;
   min =1000;
  }
void with_c()
{
Scanner sc= new Scanner (System.in);
System.out.println ("Enter amount to be withdrawn");
c_withdraw = sc.nextDouble();
if (c_withdraw>balance)
{
System.out.println ("Insufficient balance");
return;
}
 else
 {
balance = balance - c_withdraw;
System.out.println("Amt has been withdrawn and
                    balance is updated");

 }
if (balance < min)
{
System.out.println ("Balance below min value.
                     Service penalty charge of Rs.100
                     applicable");
```

```
if(balance < penalty)
System.out.println("Insufficient funds! Penalty will be
                    deducted after replinishing balance");
else
{
 balance = balance - penalty;
 System.out.println("Penalty charge deducted. Current
                     balance =" +balance);
 }
}
}
}
class lab5
{
 public static void main(String args[])
 {
  int cch, chh;
  Scanner sc = new Scanner(System.in);
  System.out.println("------- WELCOME -------");
  System.out.println("Select an account : 1. Savings
                      2. Current");
  int ch = sc.nextInt();
  if(ch==1)
  {
   Savings s = new Savings();
   s.get('S');
   do{
     System.out.println("1. Deposit \n2. Calculate
     compound interest \n3. Withdraw \n4. Display \n5. Cheque
     book \n6. Exit");
     System.out.println("enter your choice");
     chh = sc.nextInt();
     switch(chh)
     {
      case1 : S.deposit();
              break;
      case2 : S.ci();
              break;
```

```
            case 3: s.with-s();
                    break;
            case 4: s.display();
                    s.putd();
                    break;
            case 5: ~~free~~ s.check();
                    break
            case 6: break
            default: System.out.println("Wrong option");
                    break;

        }
    } while(chh!=6);
}
else if (ch==2)
{
    Current cs = new Current();
    cs.getc('c');
do {
    System.out.println("1. Deposit\n2. Cheque book\n
    3. Withdraw\n 4. Display balance\n5. Exit");
    cch= sc.nextInt();
    switch(cch);
    {
        case 1: cs.deposit();
                break;
        case 2: cs.check();
                break;
        case 3: cs.with-c();
                break;
        case 4: cs.display();
                cs.putd();
                break;
        case 5: break;
        default: System.out.println("Wrong option!");
                 break;

    }
} while(cch!=5);
```

```
    }
    else
    System.out.println("Wrong!");
  }
}
```