Lab Program : Bank

⑥

```
import java.util.*;
import java.lang.Math;
class Account
{
  String name;
  int acctno;
  char type;
  double dep;
  boolean cheq;
  double balance;

void get (char c)
 {  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 the account number");
      acctno = sc.nextInt ();
      System.out.println ("Enter the current available
                balance in your account");
      balance = sc.nextDouble ();
 }

void putd ()
{ System.out.println ("Account details");
  System.out.println ("Name:" + name);
  System.out.println ("Account Number:" + acctno);
  System.out.println ("balance:" + balance);
}
```

```
void dep()
{   Scanner sc = new Scanner (System.in);
    System.out.println("Enter the amount to be deposited");
    dep = sc.nextDouble();
    balance = balance + dep;
    System.out.println("Amount has been deposited and
                balance has been updated");
}

void display()
{
  System.out.println("Balance amount is" + balance);
}

void check()
{  if (cheq == false)
    System.out.println("Check book facility is not available");
    else
    System.out.println("Cheque book facility is available");
  }
}

class Saving extends Account {
  double rate;
  double s_with;
  int n;
  int ch;
  double amt;
  double term;
  double pr;
```

```
void ci()
{  Scanner sc = new Scanner (System.in);
   System.out.println("Enter principle deposit amount");
   pr = sc.nextDouble();
   System.out.println("Enter rate of interest");
   rate = ss.nextDouble();
   System.out.println(Enter the term (years)");
   term = sc.nextDouble();
   System.out.println("Enter the number of times interest is
                       compounded annally");
      n= sc.nextInt();
   amt = pr * Math.pow((1+(rate/100)),(n*term));
   balance += amt;
   System.out.println("Interest is compounded and
                       deposited; balance is updated");
}

void with_s() {
 Scanner sc = new Scanner (System.in);
 System.out.println("Enter the amount of money to be withdrawn");
 s_with= sc.nextDouble();
  if (s_with > balance)
 System.out.println("Insufficient balance");
   else
 {   balance = balance - s_with;
    System.out.println("Money has been withdrawn and
                        balance has been updated");
 }
}
```

```
class Current extends Account
{   double c_with;
    double pen;
    double min;
  Current()
  {  pen = 100;
     min = 500;
  }

void with_c()
{  Scanner sc = new Scanner(System.in);
   System.out.println("Enter the amount to be withdrawn");
   c_with = sc.nextDouble();
   if ((c_with > balance)
   {  System.out.println("Insufficient balance");
      return;
   }
  else
{  balance = balance - c_with;
   System.out.print("Amount has been withdrawn and balance
                     has been updated");
  }
  if (balance < min)
{ System.out.println("Balance is below the min threshold.
                     Service penality charge = 100/-");
  if (balance < pen)
   System.out.println("Due to insufficient funds, penality charge
     will be deducted from account after replenishing.
          Current balance is" + balance);
   else
   {  balance = balance - pen;
```

```
System.out.println(" Penality charge has been deducted
        from account balance. Current balance is " + 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 ("Savings account or current account ?
        1- Savings ; 2- Current ");
    int ch = sc.nextInt();
    if (ch==1)
    {
     Saving s = new Saving();
     s.get('S');
     do {
     System.out.println (" 1. Deposit money \n 2. Calculate
        compound interest \n 3. Withdraw money \n 4. Display
        balance \n 5. Cheque book facility \n 6. Exit ");
     System.out.println(" Enter your choice");
      chh = sc.nextInt();
      switch (chh)
      {
        case 1:  s.dep();
                 break;
```

```
            case 2 :  S.ci ();
                      break();

            case 3 :  S.with-s ();
                      break;

            case 4 :  S.display ();
                      break;

            case 5 :  S.check ();
                      break;

            case 6 :  break;

            default : System.out.println(" Wrong option ");
                      break;
        } } while (ch1 = 6) ;
}
else if (ch == 2)
{ Current cr = new Current ();
  cr.get ('c');
  do {
  System.out.println (" 1. Deposit money \n2. Chequebook facility\n
       Withdraw money \n4. Display balance\n 5. Exit");
  cch = sc.nextInt ();
  switch (cch)
  { case 1 :  cr.dep()
              break;
    case 2 :  cr.check ();
              break;
    case 3 :  cr.with-c ();
              break;
```

```
case 4:  cr.display();
         break;
case 5:  break;
default: System.out.println("Wrong option");
         break;
    }
  } while (ch != 5);
}
else
System.out.println("Wrong!");
}
}.
```