WEEK 5

Lab program-5

WAP to create a class Bank that maintains two kinds of account for its customers one called savings account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facilities. The current account provides cheque book facilities but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed. Create a class Account that stores customer name, acc no and type of account. From this derive the classes cur-acct and sav-acct to make them more specific to requirements. Include the necessary methods in order to achieve the following tasks

a) Accept deposit from customer and update the balance
b) Display the balance
c) Compute and deposit interest
d) Permit withdrawal and update balance

Check for minimum balance, impose penalty and update the balance.

```
import java.util.Scanner
import java.lang.Math

class Account
{
    String name = new String();
    int accno;
    double bal;
    Scanner s = new Scanner(System.in);
    void set()
    {
        System.out.println("Enter customer name");
        name = s.nextLine();
        System.out.println("Enter " + name + "'s
                account number");
        accno = s.nextInt();
        System.out.println("Enter balance amount");
        bal = s.nextDouble();
    }
    void display()
    {
        System.out.println("Customer Name: " + name);
        System.out.println("Your Account number " + accno);
        System.out.println("Your Account Balance:
                " + bal);
    }
    Account() { }
}
```

```
class savact extends account
{
Scanner s= new Scanner (System.in);
  savact()
  {
System.out.println ("Cheque facility not
                        available");
  }
  void deposit()
    {
      int ch;
    double amt;
System.out.println ("Press 1 to deposit");
      ch. = s.nextInt();
      if (ch==1)
      {
System.out.println ("Enter amount to be deposited");
      amt = s.nextDouble();
      bal= bal + amt;
      }
      else
System.out.println ("Invalid Input");
  }
  void in()
    {
System.out.println ("Enter rate of interest");
      double r = s.nextDouble();
System.out.println ("Enter number of time
          interest calculated per time period");
      int n= s.nextInt();
System.out.println ("Enter time of the
                        period");
```

```
double x = (1 + (r/100));
double ci = bal * Math.pow(x,y);
System.out.println("\n Interest amount = "+ci);
        ("\n Balance amount without interest
          "+bal);
System.out.println("\n Available balance after
          updating = "+ci);
}
void wd()
{
S.o.P("Enter amount to be withdrawn");
        w = S.nextDouble();
        if (balance-w >0) {
                balance -= w;
        S.o.P("Now Balance = "+balance);
        }
        else {
if (Choice == 1) {
        Sav_acc sav = new Sav_acc();
        sav.set();
        sav.deposit();
        sav.withdraw();
        sav.Interest();
}
else if (Choice == 2)
{
        curr_acc curr = new curr_acc();
        curr.set();
        curr.deposit();
        curr.penalty();
        curr.display();
```

```
Press
 1. for Savings account
2.for Current account
1
Facilities avilable are :
1.Withdraawal
 2.Compound Intrest
 3.No Cheque
Enter your name :
qwe
Enter Account number :
1
Enter balance:
1000
Name  :  qwe
Account number  :  1
Balance  :  1000.0
Enter 1 to deposit :
1
Enter the amount to deposit :
1000
Enter rate of interest  :
5
Enter frequency of interest applied per time period  :

1
Enter  time periods :
1
Interest amount=100.0
Balance amount without interest is2000.0
Available balance after updating is : 2100.0
Enter 1 to withdraw :
1
Enter the amount you want :
100
Avilable balance is : 2000.0
```