Lab Program 5

```java
import java.util.Scanner;

class Account
{
    String cname , auNum, auType;
    public static final
        Scanner sc = new Scanner (System.in);

    Account (String name, String auNo, String auType)
    {
        this.cname = name;
        this.auNum = auNo;
        this.auType = auType;
    }
    Account () {};
}

class CurrentAcc extends Account
{
    private double balance =1000 , rate = 0.03;

    CurrentAcc (String name, String auNo, String auType)
    {
        super(name, auNo , auType);
        System.out.println ("Welcome " + cName);
    }
```

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```java
void getBalance ()
{
    System.out.println (" Your balance :    " + balance );

void deposit (double amount)
{
    char choice;
    System.out.println ("Deposit . Account Holder", Name + "Amount" + am
    System.out.println (" Approve Deposit ? (Y/N): ");
    choice = sc.next . charAt(0);
    if (choice == 'Y' || choice == 'y')
    {
        balance += amount;
        System.out.println (" Deposit approved . Updated balance . "+ balance);
    } else {
        System.out.println (" Deposit not approved ");
    }
}

void withdraw (double amount)
{
    System.out.println (" This amount cannot withdraw any funds");
}

void check MinAmount ){
    if (balance<500)
        { balance -= 100;
    System.out.println ("Balance under minimum amount to be maintained
        . In Penalty Imposed . Updated balance " + balance );
    }
}
```

```java
class SavingsAcc extends Account
{
    private double balance = 1000, rate = 0.03;

    SavingsAcc (String name, String accNo, String accType)
    {
        super(name, accNo, accType);
        System.out.println ("New Customer : " + cName);
    }

    void getBalance ()
    {
        System.out.print l(" Your balance : " + balance);
    }

    void deposit (double amount)
    {
        char choice;
        System.out.print l("Deposit. Amount holder :" + cName + "Amount:"
            amount );
        System.out.println (" Approve Deposit ? (Y/N): ");
        choice = sc. next .charAt(0);
        if (choice == 'Y' || choice == 'y')
        {
            balance += amount;
            System.out.println ("Deposit approved  updated balance" + balance);
            calcInterest ();
            checkMinAmount();
        } else {
            System.out.print l (" Deposit  not approved ");
        }
    }
}
```

```java
void calcInterest ()
{ double CI;
  CI = balance * ( Math.pow(( 1+rate/100), 2));
  balance += CI;
  System.out.println ( "Interest added. updated balance : " +balance);
}


void withdraw ( double amount)
{ char choice;
  if (balance < amount)
  { System.out.print ( "Amount balance lower than amount to be withdraw"),
    return;
  }
  System.out.println ("Approve " + cName + "'s withdrawl ? (Y/N) : ");
  choice = sc.next().charAt(0);
  if (choice == 'y' || choice == 'Y')
  {
    balance -= amount;
    System.out.println (" Withdrawl approved. updated balance : " +balance);
    calcInterest ();
    checkMinAmount ();
  }
  else {
    System.out.println ("Withdrawl not approved ");
  }
}

void checkMinAmount (){
  int minAmount = 500, penalty = 100;
  if (balance < MinAmount){
    balance -= penalty;
System.out.print (" Amount Balance below minimum amount \n
    Penalty imposed . Updated Balance : " + balance );
  }
}
```

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```java
public class labprog5{

    public static void main (String [] args){
        int c;
        double temp;
        String name, acNo, acType;
        Scanner sc= new Scanner (System.in);
        System.out.println ("Enter name: ");
        name =sc.nextLine();
        System.out.println ("Enter Account number: ");
        acNo = sc.nextLine();
        System.out.println (" Enter Account Type : c--> Current Account
             s--> savings Account ");
        acType= sc.nextLine();
        if (acType.charAt(0) == 'c')
        {
            CurrentAcc a= new CurrentAcc (name, acNo, acType);
            while (true){
            System.out.println("1. Deposit \n 2. Withdraw \n3. Display Balance \n 4. Exit ");
            c= sc.nextInt();
            switch (c){
            case 1: { System.out.println ("Enter the amount ");
                    temp= sc.nextDouble();
                    a.deposit (temp);
                    break;
                }
            case 2: { System.out.println (" Enter the amount ");
                    temp= sc.nextDouble();
                    a.withdraw (temp);
                    break;
                }
```

```java
case 3: { a.getBalan ();
         break;
       }
case 4: { system. exit (0);
         break;
       }
default: System.out.println ("Enter the correct option");
       }
  }
}
} else if (auType.charAt(0)== 's') {
    saving a = new SavingAcc (name, accNo, auType);
    while (true)
    { system.out.println("1.Deposit \n 2.Withdraw \n 3.Display Balance \n 4.Exit");
    c = sc.nextInt();
    switch (c) {
    case 1. { System.out.print ("Enter theamount to be deposited ");
        temp = sc.nextDouble ();
        a.deposit (temp);
        break;
      }
    case 2: { System.out.println ("Enter the amount to withdrawn ");
        temp= sc.nextDouble();
        a.withdraw (temp);
        break;
      }
    case 3: { a.getBalance ();
         break;
       }
    case 4: { System.exit(0);
         break;
       }
    default: System.out.println ("Enter the correct option");
```

```
            }
         }
      }
else
{
      System.out.println("Enter valid Amount Type ");
      }
   }
}
```