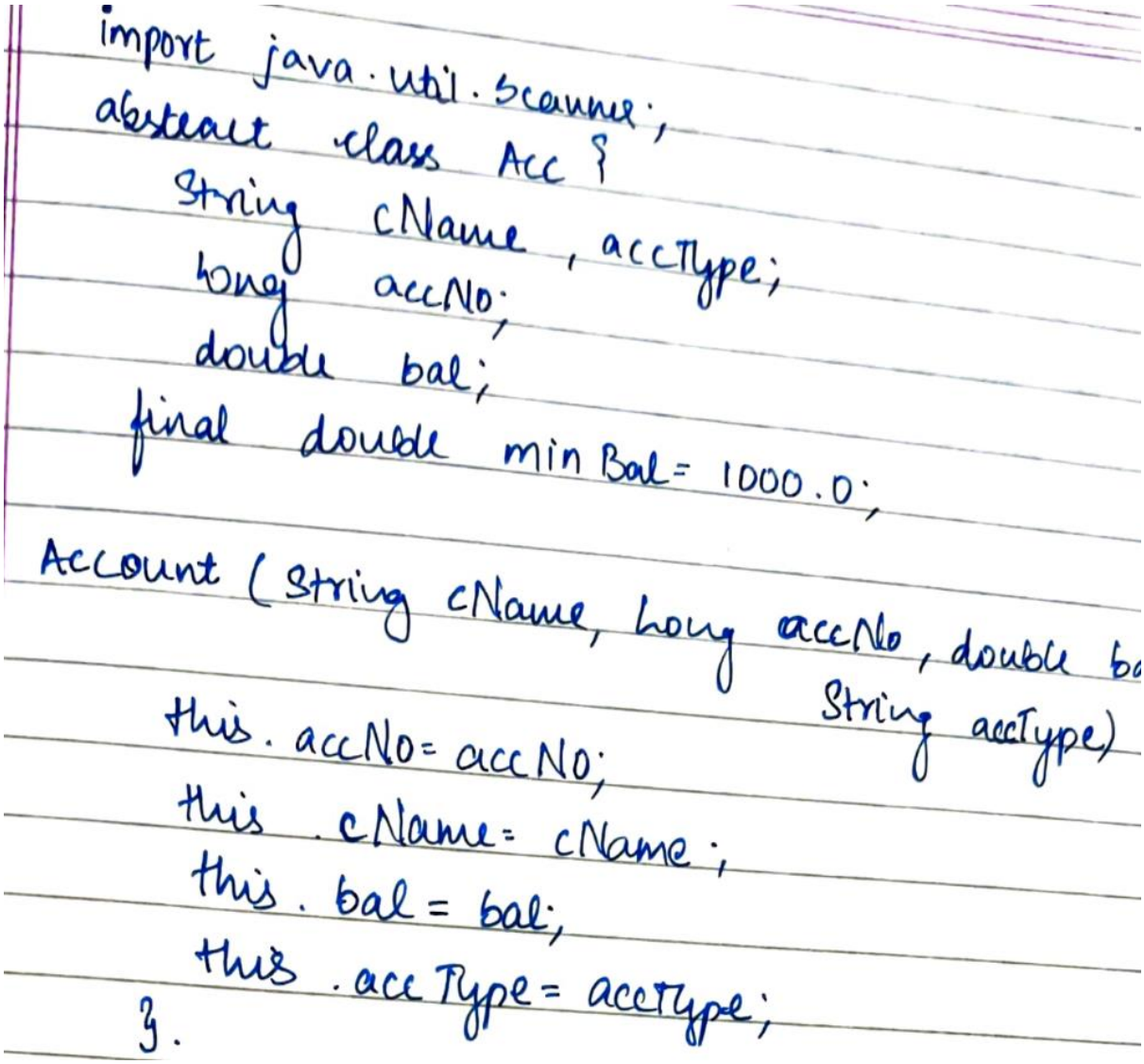
# LAB PROGRAM 5

Develop a Java program 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 facility. The current account provides cheque book facility 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, account number and type of account. From this derive the classes Curr-acct and Sav-acct to make them more specific to their requirements. Include the necessary methods in order to achieve the following tasks: • Accept deposit from customer and update the balance. • Display the balance. • Compute and deposit interest • Permit withdrawal and update the balance • Check for the minimum balance, impose penalty if necessary and update the balance



```
import java.util.Scanner;
abstract class Acc {
    String cName, accType;
    long accNo;
    double bal;
    final double minBal = 1000.0;

Account (String cName, long accNo, double ba
                                String accType)
    this.accNo = accNo;
    this.cName = cName;
    this.bal = bal;
    this.accType = accType;
}
```

```
abstract void addBal(double amt);
abstract void displayBal();
abstract void withdrawalBal(double amt);
}

class CurrentAcc extends Acc
  {
  CurrentAcc(String cName, long accNo, double bal)
    {
  super(cName, accNo, bal, "Current");
SOP("Name:" +cName+"accno:"+accNo+"bal:"+type:"
                              + accType);
}
```

```
void addBal (double amt){
    this.bal += amt;
}
```

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```
void displayBal (){
    SOP ("The balance is:" +this.bal);
}

void withdrawalBal (double amt){
    this.bal -= amt;
}
}

class SavingsAcc extends Acc {
SavingsAcc (String cName, long accNo, double bal)
{
super (cName, accNo, bal, "Savings");
  SOP("name:" + cName+" accNo:" +accNo + "bal:"+
                    +bal + "type:" + accType);
}
```

```
void addBal (double amt){
    this.bal += amt;
    addIntr();
}
void addIntr()
{
    this.bal += this.bal * 0.07;
}
void displaybal()
{
    SOP("the balance is: " + this.bal);
}
void withdrawal (double amt)
    { this.bal -= amt;
    }
```

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```
class Bank {
    public static void main (String args[])
Scanner sc= new Scanner(System.in);
    double amt;
    SOP("Name:");
```

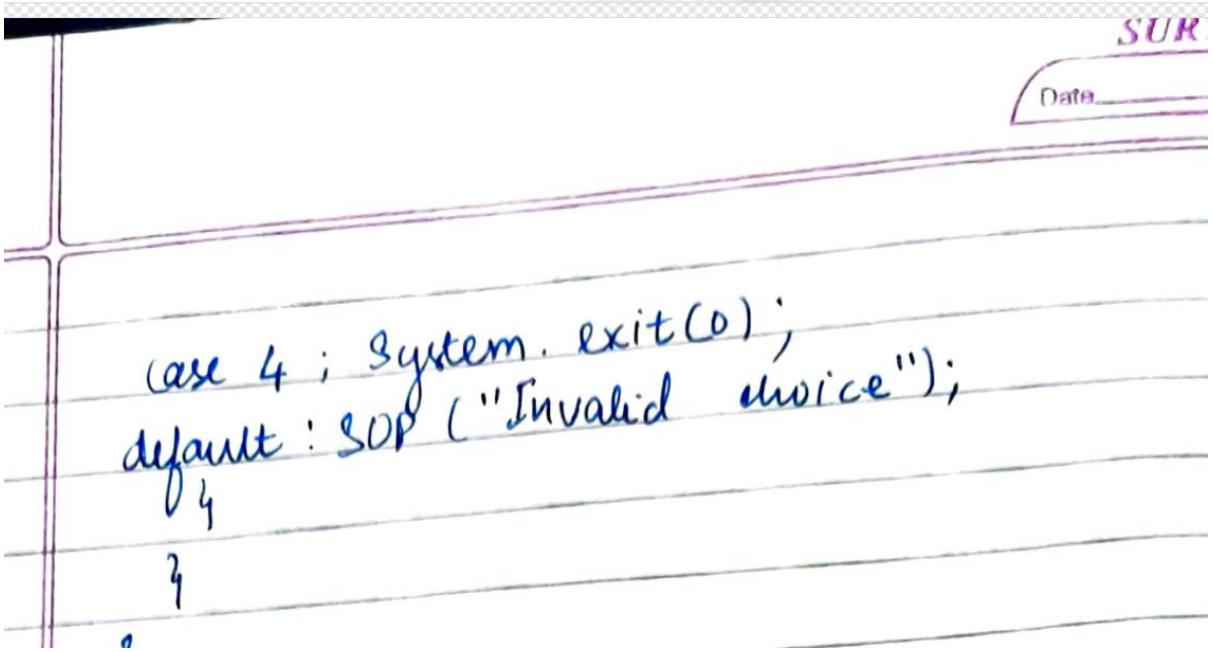
```
String x = sc.next();
SOP(" Acc No:");
long y = sc.nextLong();
SOP("Type of acc: 1.Current 2:Savings 3: Exit");
int a= sc.nextInt();

if (a==1) {
  currentAcc c=new currentAcc(x,y,50000);
for(;;)
{
SOP(1.Dep 2.Disp 3. Withdraw 4. Exit);
int ch = sc.nextInt();

switch(ch){
  case 1:
   SOP("Enter amt");
  amt= sc.nextDouble();
   c.addBal(amt);
  break;

case 2:
   c.display();
   break;
case 3;
  System.out.println("Enter amt");
```

```
amt = sc.nextDouble();
c.withdrawal(amt);
break;
```



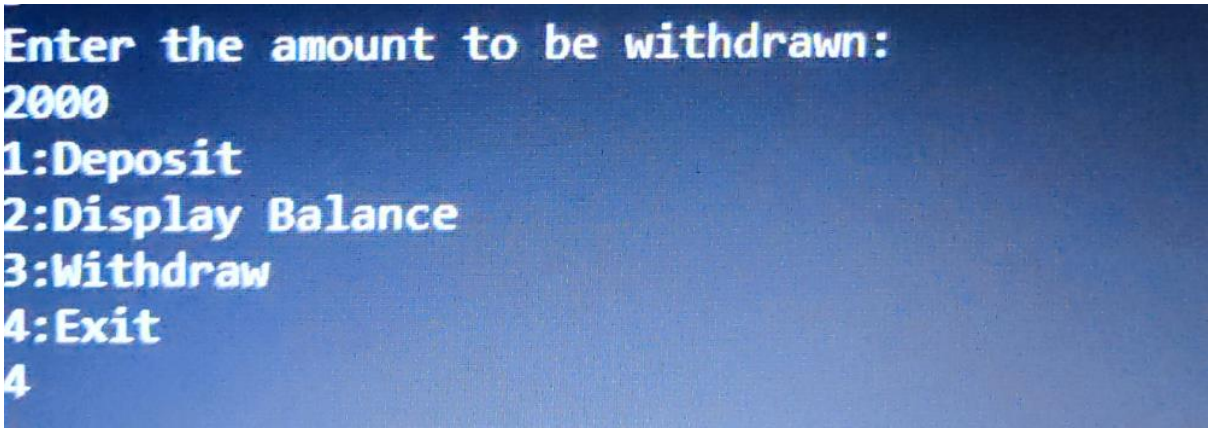
```
case 4 : System.exit(0);
default : SOP("Invalid choice");
    }
  }
```

```
else if(ch==2)
{
  SavingsAcc = new SavingsAcc(x, y, 5000);
  for(;;){
    SOP("1. Dep 2. Disp 3. Withdrawal 4. Exit
int ch = sc.nextInt();
  switch(ch)
    {
    case 1:
      SOP("Enter amt");
      amt = sc.nextDouble();
      s. addBal(amt);
```

```
            break;
        case 2:
            s.dispBal();
            break;
        case 3:
            SOP("Enter amt");
            amt = sc.nextDouble();
            s.withdrawal(amt);
            break;
        case 4:
            System.exit(0);
        default:
```

```
else if (a==3)
        system.exit(0);
    else
        SOP("INVALID");
    }
  }
}
```

```
Enter your details:
Name:
NAYANA
Account Number:
123
Type of account:
1.Current account
2.Savings account
3.Exit
1
The current account provides cheque book facility but no interest.
Name: NAYANA    accno: 123      bal: 50000.0    type: Current
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
3
Enter the amount to be withdrawn:
2000
```


Enter the amount to be withdrawn:
2000
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
4