

Q) Develop a java program to develop or create a class bank that maintain two kind of accounts one called saving account and other called current account, the savings account provides compound interest and withdrawal facility but no chequebook facility. The current account provides cheque book facility but no interest. Current account holder also need to maintain minimum balance and if balance falls below this level, a service charge is imposed.

Create a class account that stores customer name, account number, account type. From this derive the classes Curr account and sav-account to make them more specific to their requirements. Include the necessary methods in order to achieve the following task.

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



```
import java.util.Scanner;  
class account  
{
```

```
String name;
```

```
int acno;
```

```
String type;
```

```
double balance;
```

```
public account (String name, int acno, String type, double balance) {
```

```
{  
    this.name = name;
```

```
    this.type = type;
```

```
    this.acno = acno;
```

```
    this.balance = balance;
```

```
}
```

```
void double deposit (double amount)
```

```
{
```

```
    balance = balance + amount;
```

```
}
```

```
void withdraw (double amount)
```

```
{  
    if (balance - amount >= 0)
```

```
        balance -= amount;
```

```
    else
```

```
        System.out.println ("Insufficient balance, can't withdraw");
```

```
}
```

```
void display()
```

```
{
```

```
    System.out.println ("name" + name + "acno" + acno +  
        "type" + type + "balance");
```

```
}
```



```
class Saving account extends Account {
```

```
    private static double rate = 5;
```

```
    Saving account (String name, int accno, double balance) {
```

```
        super (name, accno, "Saving", balance);
```

```
    }
```

```
    void interest ()
```

```
    {
```

```
        balance = balance + balance * (rate) / 100;
```

```
        System.out.println ("Balance:" + balance);
```

```
    }
```

```
}
```

```
class Bank {
```

```
    public static void main (String args[])
```

```
    {
```

```
        Scanner s = new Scanner (System.in);
```

```
        System.out.println ("Enter the name:");
```

```
        String name = s.next();
```

```
        System.out.println ("Enter the type (current/saving): ");
```

```
        String type = s.next();
```

```
        System.out.println ("Enter the account no: ");
```

```
        int accno = s.nextInt();
```

```
        System.out.println ("Enter the initial balance:");
```

```
        double balance = s.nextDouble();
```

```
        int ch;
```

```
        double amount1, amount2;
```

```
        account acc = new account (name, accno, type, balance);
```

```
        SavAccount sa = new SavAccount (name, accno, balance);
```

```
        CurrAct ca = new CurrAct (name, accno, balance);
```



```
while (true)
```

```
{ if (acc.type.equals("Saving"))
```

```
{
```

```
System.out.println("\n menu \n 1. deposit \n 2. withdraw  
3. compute interest \n 4. display");
```

```
System.out.println("enter the choice");
```

```
int ch = s.nextInt();
```

```
switch (ch)
```

```
{
```

```
case 1:
```

```
{ System.out.println("enter the amount :");
```

```
amount1 = s.nextInt();
```

```
sa.deposit (amount1);
```

```
break;
```

```
case 2:
```

```
{ System.out.println("enter the amount :");
```

```
amount2 = s.nextInt();
```

```
sa.withdraw (amount2);
```

```
break;
```

```
case 3:
```

```
{ sa.interest ();
```

```
break;
```

```
case 4:
```

```
{ sa.display ();
```

```
break;
```

case 5 :

```
System.exit(0);
```

}

}

else

{

```
System.out.println("enter the amount :");
```

```
amount1 = sc.nextInt();
```

```
ca.deposit(amount1);
```

```
break;
```

```
case 1: System.out.println("enter the amount:");
```

```
amount1 = sc.nextInt();
```

```
ca.deposit(amount1);
```

```
break;
```

```
case 2: System.out.println("enter the amount:");
```

```
amount2 = sc.nextInt();
```

```
ca.withdraw(amount2);
```

```
ca.checkmin();
```

```
break;
```

```
case 3: ca.display();
```

```
break;
```

```
case 4: System.exit(0);
```

}

}

}



## Output

Enter the name: Sharan

Enter the type (savings/current):

current

Enter the account number

10000

Enter the initial balance

10000

Menu

1. Deposit 2. withdraw 3. display.

1

enter the amount : 1000

Menu

1. Deposit 2. withdraw 3. display

2

enter the amount : 500

menu

1. deposit ~~2. withdraw~~ 3. display.

3

name: Sharan

acc no : 10000

type: current

balance: 10500

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