

```
import java.util.*;  
class Account  
{
```

```
    String name;  
    int acc no;  
    String type;  
    double balance;  
    Scanner sc = new Scanner(System.in);  
    void accept()  
    {
```

```
        System.out.println("Enter name");  
        name = sc.next();  
        System.out.println("Enter acc no");  
        accno = sc.nextInt();  
    }
```

```
    }  
    class Curr_acct extends Account  
    {
```

```
        double deposit;  
        double withdraw;  
        double min_balance = 100.0;  
        int penalty = 100;  
        Scanner sc = new Scanner(System.in);  
        void accept1()  
        {
```

```
            System.out.println("Enter the balance");  
            balance = sc.nextDouble();  
        }
```

```
        void update()  
        {
```

```
            System.out.println("Enter the deposit");  
            deposit = sc.nextDouble();  
            balance += deposit;  
        }
```

```
system.out.println("balance got updated to:" + balance);
```

```
}  
void check()
```

```
{
```

```
    if (balance < min_bal)
```

```
    {
```

```
        system.out.println("a penalty of 100 is imposed");
```

```
        balance -= penalty;
```

```
        system.out.println("Balance got updated to:" + balance);
```

```
        check();
```

```
    }
```

```
}
```

```
void withdrawal()
```

```
{
```

```
    system.out.println("Enter the amt to be withdrawn");
```

```
    withdraw = sc.nextDouble();
```

```
    balance -= withdraw;
```

```
    system.out.println("balance got updated to:" + balance);
```

```
    check();
```

```
}
```

```
void display()
```

```
{
```

```
    system.out.println("----- DETAILS -----");
```

```
    system.out.println("name:" + name);
```

```
    system.out.println("acno:" + acno);
```

```
    system.out.println("type:" + type);
```

```
    if (balance < 0)
```

```
    {
```

```
        system.out.println("balance: 0");
```

```
        system.out.println("money to be deposited:" + (-balance));
```

```
}
```

```
else
```

```
    system.out.println("balance:" + balance);
```



```
System.out.println("cheque book facility exist");
```

```
}  
}  
class sav_acc extends Account
```

```
{  
    double balance;  
    double deposit;  
    double withdraw;  
    double interest, time, rate;  
    Scanner sc = new Scanner(System.in);
```

```
void accept1()
```

```
{  
    System.out.println("Enter the balance");  
    balance = sc.nextDouble();
```

```
}  
void update()
```

```
{  
    System.out.println("Enter the deposit");  
    deposit = sc.nextDouble();  
    Balance = balance + deposit;  
    System.out.println("balance got updated to  
    : " + balance);
```

```
}  
void calcInterest()
```

```
{  
    System.out.println("a rate of 4.5% is given for deposit  
    in savings bank acc");
```

```
System.out.println("enter the time duration for which  
    interest should be calculated");
```

```
time = sc.nextDouble();
```

```
rate = 4.5;
```

```
double x, y;
```

```

11 = (1 + rate/100);
balance = balance * (Math.pow(1, time));
}

```

```

void withdraw()
{

```

```

    System.out.println("Enter the amt to be withdrawn");
    withdraw = sc.nextDouble();
    balance -= withdraw;
    System.out.println("Balance got updated to:"
        + balance);
}

```

```

void display()
{

```

```

    System.out.println("---- DETAILS ----");

```

```

    System.out.println("name: " + name);

```

```

    System.out.println("accno: " + accno);

```

```

    System.out.println("type: " + type);

```

```

    calcInterest();

```

```

    if (balance < 0)
    {

```

```

        System.out.println("balance: 0");

```

```

        System.out.println("Money to be deposited: " + (-balance));
    }

```

```

    else

```

```

        System.out.println("balance: %.3f", balance);

```

```

        System.out.println();

```

```

        System.out.println("cheque book does not
            facility exist");
    }
}

```



```
class bank
```

```
{
```

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

```
    {
```

```
        int op, ch;
```

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

```
        System.out.println("1. curr - acct Int. sav acct");
```

```
        System.out.println("Enter the type");
```

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

```
        if (op == 1)
```

```
        {
```

```
            curr_acct a = new curr_acct();
```

```
            a.type = "curr - Acct";
```

```
            a.accept();
```

```
            a.accept();
```

```
            do {
```

```
                System.out.println("1. deposit
```

```
                2. d withdrawal
```

```
                3. exit");
```

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

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

```
                switch(ch)
```

```
                {
```

```
                    case 1:
```

```
                        a.update();
```

```
                        break;
```

```
                    case 2:
```

```
                        a.withdrawal();
```

```
                        break;
```

```
                        a.display();
```

```
                        break;
```

default:

system.out.println("wrong choice");

}

while (ch != 3)

{

if (ch == 2)

{

sav-acct b = new sav-acct();

b.type = "sav-acct";

b.accept();

b.accept();

do {

system.out.println("1. deposit 2. withdrawal 3. Exit");

system.out.println("Enter your choice");

ch = sc.nextInt();

switch (ch)

{

case 1:

b.update();

break;

case 2:

b.withdrawal();

break;

case 3:

b.display();

break;

default:

system.out.println("wrong choice");

}

while (ch != 3);

}

}

}