→ Bank - Current & Savings Account.

Develop a Java program to create a class Bank that maintains 2 kinds of account

```
import java.util.Scanner;
class Account{
    String cust_name;
    int accno;
    String acc_type;
    double balance;
    public Account(String cust_name, int
    accno, String acc_type){
        this.cust_name = cust_name;
        this.accno = accno;
        this.acc_type = acc_type;
        this.balance = 0;
    }
    public void displayBal(){
        System.out.println("Account number: "+accno);
        System.out.println("Customer name: "+custname);
        System.out.println("Account type: "+acc_type);
        System.out.println("Balance: "+balance);
    }
}
class Current extends Account{
    double min_balance, service_charge;
    Current(String cust_name, int accno){
        super(cust_name, accno, "Current");
        this.min_balance = 500;
        this.service_charge = 20;
    }
    public void withdrawal(double amt){
        if(balance-amt >= min_balance){
            balance -= amt;
            System.out.println("Withdrawal
successful. Current Balance: "+balance);
        }else{
            balance -= service_charge;
        }
    }
}
```

```
class Savings extends Account {
    double interest_rate;
    Savings(String cust_name, int accno){
        super(cust_name, accno, "Savings");
        this.interest_rate = 0.5;
    }
    public void DepositInterest(){
        balance += balance * interest_rate;
        System.out.println("Interest Deposited
        Current Balance = " + balance);
    }
    public void compoundInterest(double initial_amt,
        int time){
        double ci = initial_amt * Math.pow((1+in-
                                    terest_rate), time)
                        - initial_amt;
        balance += ci;
        System.out.println("Compound interest
        is applied. Current Balance: " + balance);
    }
}
public class Bank {
    public static void main(String[] args){
        Scanner in = new Scanner(System.in);
        System.out.println("Choose account type ");
        System.out.println("1. Savings 2. Current");
        System.out.println("Enter choice 1 or 2 ");
        int choice = in.nextInt();
        System.out.println("Enter customer name");
        String cust_name = in.next();
        System.out.println("Enter account number");
        int accno = in.nextInt();
        System.out.println
        if(choice == 1){
            Savings saveAcc = new Savings(cust_name,
                                        accno);
            System.out.println("Enter initial
                                balance");
```

```
double initial_balance = in.nextDouble();
savAcc.balance = initial_balance;
System.out.println("Enter withdrawal
        amount");
double withdrawal = in.nextDouble();
savAcc.balance = withdrawal;
System.out.println("Withdrawal
successful. Current balance: " +
        savAcc.balance);
System.out.println("Enter time
to calculate compound interest:");
int time = in.nextInt();
savAcc.CompoundInterest(initial_balance,
        time);
savAcc.displayBal();
}
else if(choice==2){
Current curAcc = new Current(cust_name,
                        acno);
System.out.println("Enter initial
                        balance");
double initial_balance = in.nextDouble();
curAcc.balance = initial_balance;
System.out.println("Enter withdrawal
amount:");
double amt = in.nextDouble();
curAcc.withdrawal(amt);
curAcc.ServiceCharge();
curAcc.displayBal();
}
else{
System.out.println("Invalid choice");
}
}
}
```

Flowchart:

Step 1 : Start
Step 2 : Initialize variable cust_name, accno, acc_type, balance.
Step 3 : Input = "Enter customer name " + cust_name
Step 4 : Input - "Enter account number" + accno
Step 5 : Input - "Enter account type" + acc_type
Step 6 : Input - "Enter balance " + balance.
Step 8 : Print " Enter account type :
1. Saving 2. Current "
Step 7 : Input - "Enter choice 1 or 2 "
Step 8 : if (choice ==)
Step 9 : Read choice
Step 10 : if (choice == 1) {
Input - "Enter initial balance" + initial_balance
Input - "Enter withdrawal amount" + withdrawal.
Input if (initial Input "Enter minimum balance " + min.
if (initial_balance - withdrawal >= min)
{
balance -= withdrawal;
}
Print "Current Balance " + balance
Input "Enter interest_rate " + rate
Input "Enter time " + time
ci = initial_balance * power (1 + interest rate), time)
- initial_balance.
Print " Compound Interest : " + ci
Print " Depsit with Interest " +
(balance + balance * interest_

Step 11 : else if (choice == 2) {
Print "Input :" "Enter initial_balance"
, initial_balance
balance = initial_balance;
Input " Enter withdrawal amount" +
if withdrawal.
if (balance - withdrawal) >= min) {
balance -= withdrawal;
}
Print " Current Balance = " + balance
}
Step 12 : else {
Print " Invalid choice "
}
Step 13 : Stop

Output :
Choose account type
1. Saving 2. Current
Enter choice 1 or 2
1
Enter customer_name
adb
Enter account number :
001
Enter initial balance :
10000
Enter withdrawal amount
1000
Current balance = 9000.0
Enter time(in years) for compound interest calculation.
3
Compound interest applied = 32750.0

```
D:\java\oops>java F
Name: Aditya Dinesh Netrakar
USN: 1BM22CS017
Choose account type:
1.Savings
2.Current
Enter choice 1 or 2
1
Enter customer name:
adi
Enter account number:
001
Enter initial balance
10000
Enter withdrawl amount
1000
Withdrawl successful. Current balance: 9000.0
Enter interest rate:
3
Account number: 1
Customer name: adi
Account type: Savings
Balance: 9000.0
Enter time(in years) to calculate compund interest:
3
Compound interest applied. Current balance: 639000.0
Account number: 1
Customer name: adi
Account type: Savings
Balance: 639000.0
```