

Name: Sagar - Barzani

USN: IBM22CS231

22

Develop a java program to create class Bank that maintain two kinds of accounts for its customer, one called savings account and 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.

```
import java.util.*;
class Account {
    String name;
    int accno;
    String acctype;
    double balance;
    Account (String name, int accno, String acctype, double balance)
    {
        this.name = name;
        this.accno = accno;
        this.acctype = acctype;
        this.balance = balance;
    }
    void deposit(double amount) {
        balance += amount;
    }
}
```

```

void withdraw (double amount){
    if (balance - amount) >= 0 {
        balance -= amount;
    }
    else { System.out.println("Insufficient balance");
    }
}

void display(){
    System.out.println("Name : " + name + "\n" +
        "Account No : " + accno + "\n" +
        "Type : " + type + "\n" +
        "balance : " + balance + "\n");
}

```

```

}

class SavingsAccount extends Account{
    private static int rate = 5;
    SavingsAccount(String name, int accno, String String type,
        double balance)
    {
        super(name, accno, type, balance);
    }
    void balanceWithInterest(){
        balance += balance * rate / 100;
        System.out.println("balance : " + balance);
    }
}

```

```

}

class CurrAccount extends Account{
    private static int minBalance = 1000;
    private static int charge = 100;
    CurrAccount(String name, int accno, String type,
        double balance)
    {
        super(name, accno, type, balance);
    }
}

```

public



```
void checkMin() {
```

```
    if (balance < minBalance)
```

```
    { System.out.println("Balance is less than  
      min balance service charge exposed "+  
      charge);
```

```
    }
```

```
    balance -= charge;
```

```
    System.out.println("balance is " + balance);
```

```
}
```

```
}
```

```
public class AccountMain {
```

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

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

```
      System.out.println("Enter your name");
```

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

```
      System.out.println("Enter the account type  
      (current or savings)");
```

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

```
      System.out.println("Enter the account number");
```

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

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

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

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

```
      SavingAccount sa = new SavingAccount(name,  
      accno, type, balance);
```

```
      CurrAccount ca = new CurrAccount(name,  
      accno, type, balance);
```

```
      double amount;
```

```
while (true) {
```

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

```
        System.out.println("\n --- MENU --- \n");
```

```
        System.out.println("1. Deposit \t 2. Withdraw \t,
```

```
        3. Comput Interest \t 4. Display Account  
        details \t 5. exit \t");
```

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

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

```
        switch (choice)
```

```
        { case 1 : System.out.println("Enter the  
        deposit amount");
```

```
            amount = s.nextDouble();
```

```
            sa.deposit(amount);
```

```
            break;
```

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

```
            amount = s.nextDouble();
```

```
            sa.withdraw(amount);
```

```
            break;
```

```
        case 3 : sa.balanceWithInterest();  
            break;
```

```
        case 4 : System.out.println("Details :");
```

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

```
            break;
```

```
        case 5 : return;
```

```
        default : System.out.println
```

```
            ("Invalid choice");
```

```
}
```

```
3
```



```

else {
    System.out.println("1. Deposit \t 2. withdraw \t  

    3. display account details \t 4. exit \t");
    System.out.println("Enter the choice");
    int choice = s.nextInt();
    switch (choice)
    {
        case 1: System.out.println("Enter the amount");
                amount = s.nextDouble(); s.nextDouble();
                ca.deposit(amount);
                break;

        case 2: System.out.println("Enter the amount");
                amount = s.nextDouble();
                ca.withdraw(amount);
                ca.checkMin();
                break;

        case 3: ca.display();
                break;

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

```

output -

Savings output -

Enter your name:

Sagar

Enter the account type (current or deposit):

savings

Enter the account number:

45386

Enter the initial balance

150

----- MENU -----

1. Deposit    2. withdraw    3. Compute interest

Enter your choice

1

Enter amount

4000

Enter your choice

2

Enter your amount

3000

Enter your choice

3

Details:-

Name : Sagar

Accno : 15386

Type : Saving

balance : 1000

CURR Account output :-

Enter your name

Sagar

Enter account type (current or deposit)

current

Enter the account number

15348

Enter the initial amount

1500

Enter choice

2

~~300~~ Enter the amount

3000

Enter your choice

3

Details

Name : Jagan

Acno : 35348

Type : Current

balance : 1260