

LAB 05

Develop a java program to create a class to account that stores customer name, account number, and type of account. From this derive the classes current acc and savings account to make them more specific to their requirements.

Achieve the following tasks :

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

import java.util.Scanner;

class Input {

Scanner sc = new Scanner(System.in);

class Account extends Input {

String name;

int accno;

double balance;

void getDetails () {

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

name = sc.nextLine();

System.out.println ("Enter acc no. : ");

accNo. = sc.nextInt();

}

```
void deposit() {
```

```
    System.out.println("Enter amount to deposit");
```

```
    double amt = sc.nextDouble();
```

```
    balance += amt;
```

```
    System.out.println("Amount Deposited");
```

```
void withdraw() {
```

```
    System.out.println("Enter amount");
```

```
    double amt = sc.nextDouble();
```

```
    if (balance >= amt) {
```

```
        balance -= amt;
```

```
        System.out.println("Amount withdrawn");
```

```
    } else {
```

```
        System.out.println("Insufficient Balance");
```

```
void display() {
```

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

```
    System.out.println("Account Number: " +
```

~~accNo~~

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

```
Class Current extends Account {
```

```
    double minbal = 500;
```

```
    double penalty = 100;
```

```
void withdraw() {  
    super.withdraw();  
    checkMinBalance();  
}
```

```
private void checkMinBalance() {  
    if (balance < minBal) {  
        balance -= Penalty;  
        System.out.println("Penalty applied  
for low balance");  
    }  
}
```

```
class Savings extends Account {  
    double interestRate = 0.04;
```

```
void computeInterest() {  
    double interest = balance * interestRate;  
    balance += interest;  
    System.out.println("Interest credited :" + interest);  
}
```

```
class Bank extends Account {
```

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

```
savings Obj1 = new Savings();
```

```
current Obj2 = new Current();
```

```
Obj1.getDetails();
```

```
obj2.getDetails();
int choice;
String acc;
System.out.println("Menu:");
System.out.println("1. Deposit");
3. Display Balance
4. Compute Interest
Only in 5. Exit in");
```

do {

```
System.out.print("Enter your choice:");
choice = sc.nextInt();
System.out.print("Enter the acc type");
acc = sc.next();
switch(choice) {
```

case 1:

```
if(acc.equals("Saving"))
    ob1.deposit();
```

else

```
ob2.deposit();
```

```
break;
```

Case 2:

```
if(acc.equals("Savings"))
```

```
ob1.withdraw();
```

else

```
ob2.withdraw();
```

```
break;
```

Case 3:

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

```
ob1.display();
```

else

```
ob2.display();
```

```
break;
```

case 4 :

```
ob 1.computeInterest();  
break;
```

Case 5 :

```
break;
```

Default :

```
System.out.println("Invalid choice");
```

```
}
```

```
while (choice != 5);
```

```
}{
```

```
}
```

OUTPUT:

Enter name : Sanghamita

Enter accNo : 1

Enter name : Shek Samrat

Enter accNo : 2

Menu

1. Deposit
2. Withdraw
3. Display
4. Compute Interest (Savings only)
5. Exit

Enter your choice : 1

Enter acc type : Savings

Enter deposit amount : 1000

Enter your choice : 1

Enter acc type : current

Enter deposit amount : 5000

Enter your choice : 2

Enter acc type : savings

Enter withdraw amt : 500

Enter your choice : 2

Enter acc type : current

Enter withdraw amt : 4600

Penalty applied

Enter your choice : 3

Enter acc type : current

Name : Shreyas

acc no. : 2

Balance : 300

Enter your choice : 4

Interest credited : 40

Enter your choice : 2

Enter acc type : savings

Enter withdraw amt : 1050

insufficient balance

(also printed)

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