

ASSIGNMENT :- 1

```
Main.java X
1 package Naveen;
2
3 class BankAccount {
4     private String accountHolderName;
5     private String bankName;
6     private double accountBalance;
7
8     // Constructor
9     public BankAccount(String accountHolderName, String bankName, double initialBalance) {
10         this.accountHolderName = accountHolderName;
11         this.bankName = bankName;
12         this.accountBalance = initialBalance;
13     }
14
15     // Method to get current balance
16     public double getBalance() {
17         return accountBalance;
18     }
19
20     // Method to deposit money
21     public void deposit(double amount) {
22         if (amount > 0) {
23             accountBalance += amount;
24             System.out.println(accountHolderName + " deposited ₹" + amount + " to " + bankName);
25         } else {
26             System.out.println("Invalid deposit amount.");
27         }
28     }
29
30     // Method to withdraw money
31     public void withdraw(double amount) {
32         if (amount > 0 && amount <= accountBalance) {
33             accountBalance -= amount;
34             System.out.println(accountHolderName + " withdrew ₹" + amount + " from " + bankName);
35         } else {
36             System.out.println("Insufficient balance or invalid withdrawal amount.");
37         }
38     }
39
40     // Display account summary
41     public void displayAccount() {
42         System.out.println("Account Holder: " + accountHolderName +
43             ", Bank: " + bankName +
44             ", Balance: ₹" + accountBalance);
45         System.out.println(" ");
46     }
47 }
48
49 public class Main {
50     public static void main(String[] args) {
51         // Creating three bank accounts
52         BankAccount acc1 = new BankAccount("Amit", "ICICI", 10000);
53         BankAccount acc2 = new BankAccount("Sneha", "HDFC", 15000);
54         BankAccount acc3 = new BankAccount("Rahul", "SBI", 20000);
55
56         // Transactions for acc1
57         acc1.deposit(5000);
58         acc1.withdraw(3000);
59         acc1.displayAccount();
60
61         // Transactions for acc2
62         acc2.deposit(2000);
63         acc2.withdraw(5000);
64         acc2.displayAccount();
65
66         // Transactions for acc3
67         acc3.deposit(1000);
68         acc3.withdraw(2500);
69         acc3.displayAccount();
70     }
71 }
72
```

Output :-

```
Problems Javadoc Declaration Console X
<terminated> Main [Java Application] C:\Users\Naveen\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.8.v202
Amit deposited ₹5000.0 to ICICI
Amit withdrew ₹3000.0 from ICICI
Account Holder: Amit, Bank: ICICI, Balance: ₹12000.0

Sneha deposited ₹2000.0 to HDFC
Sneha withdrew ₹5000.0 from HDFC
Account Holder: Sneha, Bank: HDFC, Balance: ₹12000.0

Rahul deposited ₹1000.0 to SBI
Rahul withdrew ₹2500.0 from SBI
Account Holder: Rahul, Bank: SBI, Balance: ₹18500.0
```

Input :-

```
package Naveen;

class BankAccount {

    private String accountHolderName;

    private String bankName;

    private double accountBalance;

    // Constructor

    public BankAccount(String accountHolderName, String bankName, double initialBalance) {

        this.accountHolderName = accountHolderName;

        this.bankName = bankName;

        this.accountBalance = initialBalance;

    }

    // Method to get current balance

    public double getBalance() {

        return accountBalance;

    }

    // Method to deposit money

    public void deposit(double amount) {

        if (amount > 0) {

            accountBalance += amount;

            System.out.println(accountHolderName + " deposited ₹" + amount + " to " + bankName);

        } else {

            System.out.println("Invalid deposit amount.");

        }

    }

    // Method to withdraw money

    public void withdraw(double amount) {

        if (amount > 0 && amount <= accountBalance) {

            accountBalance -= amount;

            System.out.println(accountHolderName + " withdrew ₹" + amount + " from " + bankName);

        } else {

            System.out.println("Insufficient balance or invalid withdrawal amount.");

        }

    }

    // Display account summary

    public void displayAccount() {

        System.out.println("Account Holder: " + accountHolderName +

            ", Bank: " + bankName +

            ", Balance: ₹" + accountBalance);

        System.out.println(" ");

    }

}

public class Main {

    public static void main(String[] args) {

        // Creating three bank accounts
```

```
BankAccount acc1 = new BankAccount("Amit", "ICICI", 10000);

BankAccount acc2 = new BankAccount("Sneha", "HDFC", 15000);

BankAccount acc3 = new BankAccount("Rahul", "SBI", 20000);

// Transactions for acc1

acc1.deposit(5000);

acc1.withdraw(3000);

acc1.displayAccount();

// Transactions for acc2

acc2.deposit(2000);

acc2.withdraw(5000);

acc2.displayAccount();

// Transactions for acc3

acc3.deposit(1000);

acc3.withdraw(2500);

acc3.displayAccount();

}

}
```

ASSIGNMENT :- 2

```
Main1.java ×
1 package Naveen;
2
3 //Superclass
4 class Animal {
5     public void makeSound() {
6         System.out.println("The animal makes a sound.");
7     }
8 }
9
10 //Subclass Dog
11 class Dog extends Animal {
12     @Override
13     public void makeSound() {
14         System.out.println("The dog barks.");
15     }
16 }
17
18 //Subclass Cat
19 class Cat extends Animal {
20     @Override
21     public void makeSound() {
22         System.out.println("The cat meows.");
23     }
24 }
25
26 //Main class to test the behavior
27 public class Main1 {
28     public static void main(String[] args) {
29         // Creating objects of each class
30         Animal genericAnimal = new Animal();
31         Dog dog = new Dog();
32         Cat cat = new Cat();
33
34         // Displaying sounds
35         genericAnimal.makeSound(); // Output: The animal makes a sound.
36         dog.makeSound();           // Output: The dog barks.
37         cat.makeSound();           // Output: The cat meows.
38     }
39 }
40
```

Output :-

```
Problems Javadoc Declaration Console ×
<terminated> Main1 [Java Application] C:\Users\Naveen\.p2\pool\plugins\org.eclipse.justj.openjdk
The animal makes a sound.
The dog barks.
The cat meows.
```

Input :-

```
// Superclass

class Animal {

    public void makeSound() {

        System.out.println("The animal makes a sound.");

    }

}

// Subclass Dog

class Dog extends Animal {

    @Override

    public void makeSound() {

        System.out.println("The dog barks.");

    }

}

// Subclass Cat

class Cat extends Animal {

    @Override

    public void makeSound() {

        System.out.println("The cat meows.");

    }

}

// Main class to test the behavior

public class Main1 {

    public static void main(String[] args) {

        // Creating objects of each class

        Animal genericAnimal = new Animal();

        Dog dog = new Dog();

        Cat cat = new Cat();

        // Displaying sounds

        genericAnimal.makeSound(); // Output: The animal makes a sound.

        dog.makeSound();           // Output: The dog barks.

        cat.makeSound();           // Output: The cat meows.

    }

}
```