# ASSIGNMENT :- 1

```java
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();
    }
}
```

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 :-

```java
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
```

```java
        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

```java
package Naveen;

//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.
    }
}
```

Output :-

Problems @ Javadoc Declaration Console X

`<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 :-

```java
// 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.
    }
}
```