----------Oops concepts lab assignment----------

```java
package LabAssignment;

public 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 the current balance
	public double getBalance() {
	    return accountBalance;
	}

	// Method to deposit money
	public void deposit(double amount) {
	    if (amount > 0) {
	        accountBalance += amount;
	        System.out.println(amount + " deposited to " + accountHolderName + "'s account.");
	    } else {
	        System.out.println("Deposit amount must be positive.");
	    }
	}

	// Method to withdraw money
	public void withdraw(double amount) {
	    if (amount > 0 && amount <= accountBalance) {
	        accountBalance -= amount;
	        System.out.println(amount + " withdrawn from " + accountHolderName + "'s account.");
	    } else if (amount > accountBalance) {
	        System.out.println("Insufficient funds for withdrawal.");
```

```
    public void displayBalance() {
        System.out.println("Account Holder: " + accountHolderName + ", Bank: " + bankName + ", Balance: " +
    }

    public static void main(String[] args) {
        // Create three bank accounts
        BankAccount account1 = new BankAccount("Alice", "ICICI", 1000.00);
        BankAccount account2 = new BankAccount("Bob", "HDFC", 1500.00);
        BankAccount account3 = new BankAccount("Charlie", "SBI", 2000.00);

        // Perform transactions on account 1
        account1.deposit(500);
        account1.withdraw(200);
        account1.displayBalance();

        // Perform transactions on account 2
        account2.deposit(300);
        account2.withdraw(200);
        account2.displayBalance();

        // Perform transactions on account 3
        account3.deposit(1000);
        account3.withdraw(2500); // This should show insufficient funds
        account3.displayBalance();
    }
}
```

Console X

<terminated> BankAccount [Java Application] C:\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.3.v20240426-1530\jre\bin\javaw.exe

```
500.0 deposited to Alice's account.
200.0 withdrawn from Alice's account.
Account Holder: Alice, Bank: ICICI, Balance: 1300.0
300.0 deposited to Bob's account.
200.0 withdrawn from Bob's account.
Account Holder: Bob, Bank: HDFC, Balance: 1600.0
1000.0 deposited to Charlie's account.
2500.0 withdrawn from Charlie's account.
Account Holder: Charlie, Bank: SBI, Balance: 500.0
```

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```java
package LabAssignment;

public class Animal {

   // Method to be overridden
        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 demonstrate method overriding
     public static class main{
        public static void main(String[] args) {
            // Creating objects of each class
            Animal myAnimal = new Animal();
            Animal myDog = new Dog();
            Animal myCat = new Cat();

            // Displaying sounds
            System.out.println("Animal Sound:");
            myAnimal.makeSound();
```

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```
16          }
17      }
18
19      // Subclass Cat
20      class Cat extends Animal {
21          @Override
22          public void makeSound() {
23              System.out.println("The cat meows.");
24          }
25
26
27      // Main class to demonstrate method overriding
28       public static class main{
29          public static void main(String[] args) {
30              // Creating objects of each class
31              Animal myAnimal = new Animal();
32              Animal myDog = new Dog();
33              Animal myCat = new Cat();
34
35              // Displaying sounds
36              System.out.println("Animal Sound:");
37              myAnimal.makeSound();
38
39              System.out.println("Dog Sound:");
40              myDog.makeSound();
41
42              System.out.println("Cat Sound:");
43              myCat.makeSound();
44          }
45      }
46  }
47
```