Session-3 Lab

ASSIGNMENT 07

package com.san.jay;

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 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 into " + accountHolderName + " (" + bankName + ")");

    } **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    System.*out*.println(amount + " withdrawn from " + accountHolderName + " (" + bankName + ")");

    } **else** {

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

            }

    }

// Method to display account details

        public void displayAccountDetails() {

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

                System.out.println("Bank: " + bankName);

                System.out.println("Balance: " + accountBalance);

                System.out.println("**************************");

        }

// Main method

        public static void main(String[] args) {

// Creating three bank accounts

        BankAccount acc1 = new BankAccount("Sanjay", "ICICI", 5000);

        BankAccount acc2 = new BankAccount("Ramesh", "HDFC", 7000);

        BankAccount acc3 = new BankAccount("Priya", "SBI", 10000);

// Perform deposit and withdrawal

        acc1.deposit(2000);

        acc1.withdraw(1500);

        acc1.displayAccountDetails();

        acc2.deposit(3000);

        acc2.withdraw(5000);

        acc2.displayAccountDetails();

        acc3.deposit(5000);

        acc3.withdraw(12000); // Should show insufficient balance

        acc3.displayAccountDetails();

        }

}
```
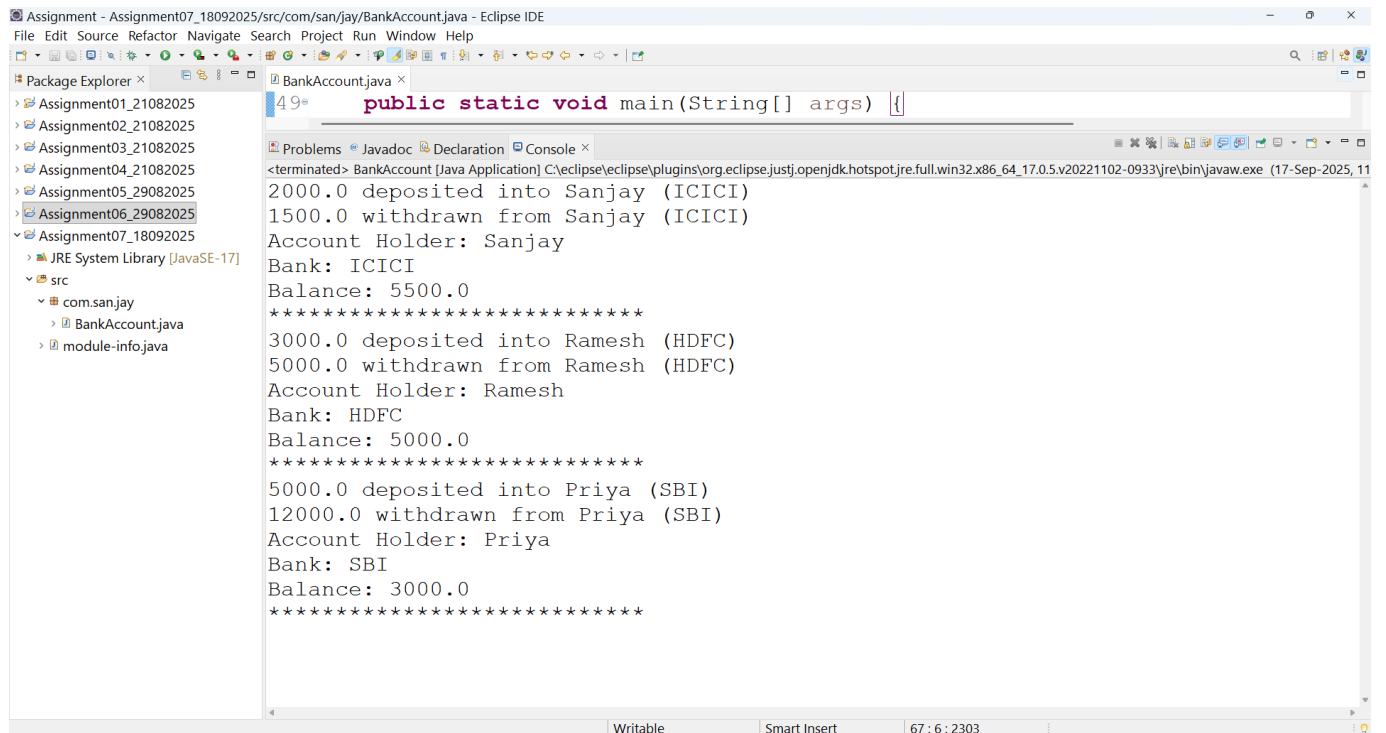

ASSIGNMENT 07 – OUTPUT

ASSIGNMENT 08

package com.san.jay;

//superclass

public class Animals {

    public void makeSound() {

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

    }

}

package com.san.jay;

//Subclass Dog

public class Dog **extends** Animals {

    @Override

    public void makeSound() {

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

    }

}

```java
package com.san.jay;

//Subclass Cat

public class Cat extends Animals {

        @Override

        public void makeSound() {

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

        }

}

package com.san.jay;

import java.util.Scanner;

//mainclass Animal test

public class AnimalTest {

        public static void main(String[] args) {

                Scanner scanner = new Scanner(System.in);

                System.out.println("Choose an animal (1. Animal, 2. Dog, 3. Cat): ");

                Int choice = scanner.nextInt();

                Animals myAnimal; // Reference of superclass

                switch (choice) {

                        case 1:

                                myAnimal = new Animals();

                                break;

                        case 2:

                                myAnimal = new Dog();

                                break;

                        case 3:

                                myAnimal = new Cat();

                                break;

                        default:

                                System.out.println("Invalid choice! Defaulting to Animal.");

                                myAnimal = new Animals();

                }

                // Polymorphism in action

                myAnimal.makeSound();
```
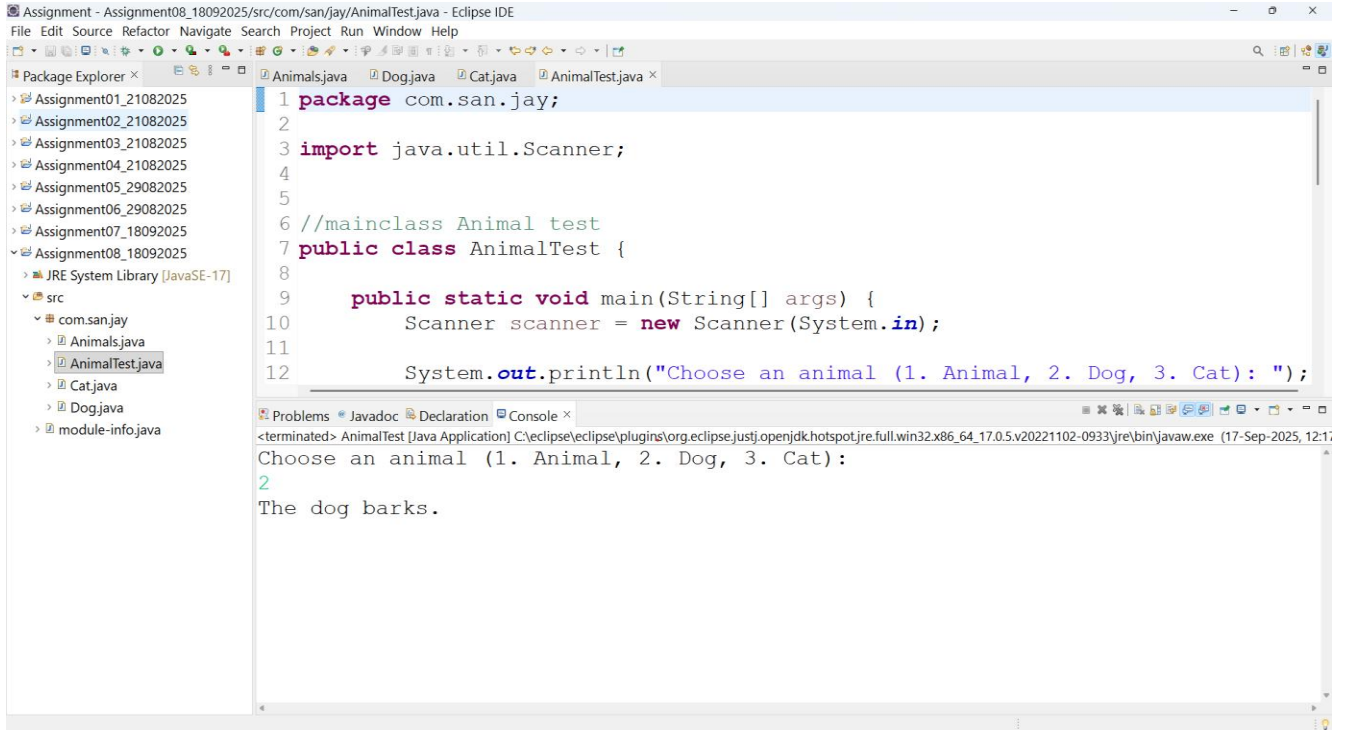
```
            scanner.close();

        }

}
```

ASSIGNMENT 06 – OUTPUT