Session-5 Lab

ASSIGNMENT 10

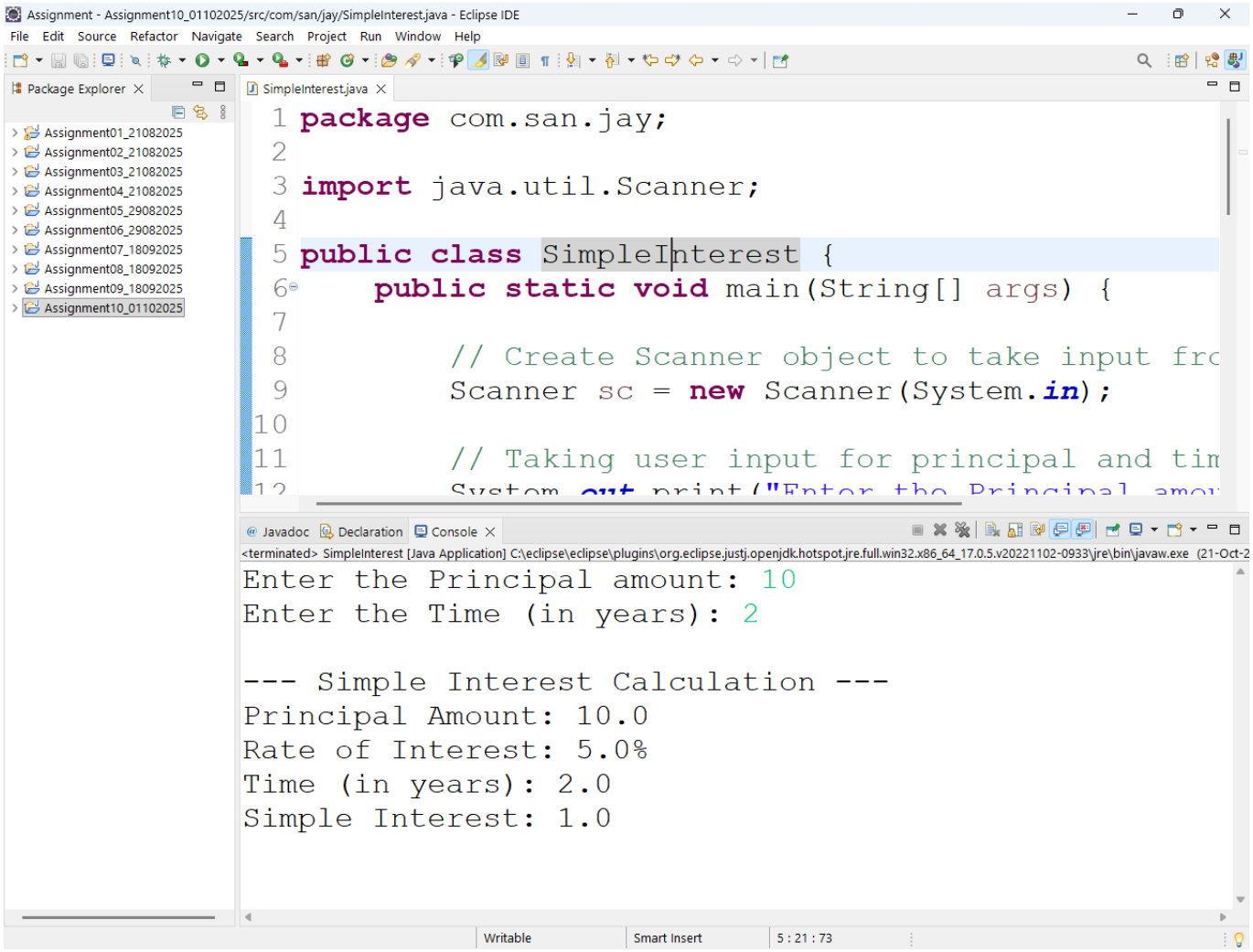
```
package com.san.jay;

import java.util.Scanner;

public class SimpleInterest {

	public static void main(String[] args) {

	// Create Scanner object to take input from the console

	Scanner sc = new Scanner(System.in);

	// Taking user input for principal and time

	System.out.print("Enter the Principal amount: ");

	double principal = sc.nextDouble();

	System.out.print("Enter the Time (in years): ");

	double time = sc.nextDouble();

	double rate; // variable to store interest rate

	// Determine rate of interest based on principal amount

	if (principal > 10000) {

	rate = 10; // 10% interest

	} else if (principal >= 5000 && principal <= 10000) {

	rate = 8; // 8% interest

	} else {

	rate = 5; // 5% interest

	}

	// Calculate Simple Interest

	double interest = (principal * rate * time) / 100;

	// Display the result

	System.out.println("\n--- Simple Interest Calculation ---");

	System.out.println("Principal Amount: " + principal);

	System.out.println("Rate of Interest: " + rate + "%");

	System.out.println("Time (in years): " + time);

	System.out.println("Simple Interest: " + interest);
```

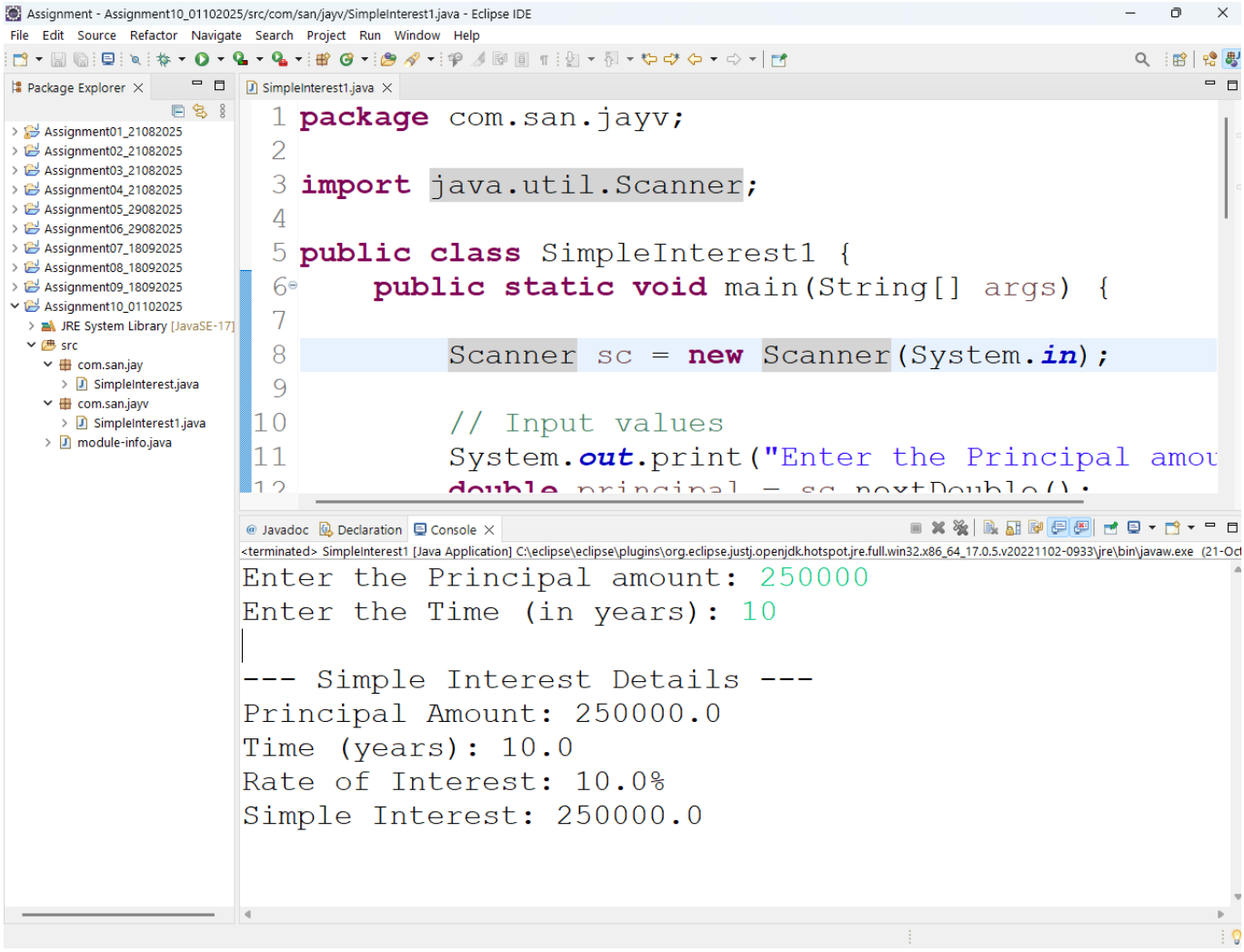
```
        // Close Scanner
        sc.close();
        }
}
```

```
import java.util.Scanner;
public class SimpleInterest1 {
   public static void main(String[] args) {

      Scanner sc = new Scanner(System.in);

      // Input values
      System.out.print("Enter the Principal amount: ");
      double principal = sc.nextDouble();

      System.out.print("Enter the Time (in years): ");
      double time = sc.nextDouble();

      double rate;  // variable for rate of interest

      // if-else statement to decide the rate
      if (principal > 10000) {
         rate = 10;  // 10% for amount > 10000
      } else if (principal >= 5000 && principal <= 10000) {
         rate = 8;   // 8% for amount between 5000 and 10000
      } else {
         rate = 5;   // 5% for amount below 5000
      }

      // Calculate Simple Interest
      double interest = (principal * rate * time) / 100;
```

```
        // Display result
        System.out.println("\n--- Simple Interest Details ---");
        System.out.println("Principal Amount: " + principal);
        System.out.println("Time (years): " + time);
        System.out.println("Rate of Interest: " + rate + "%");
        System.out.println("Simple Interest: " + interest);


        sc.close();
    }
}
```

ASSIGNMENT 10 – OUTPUT





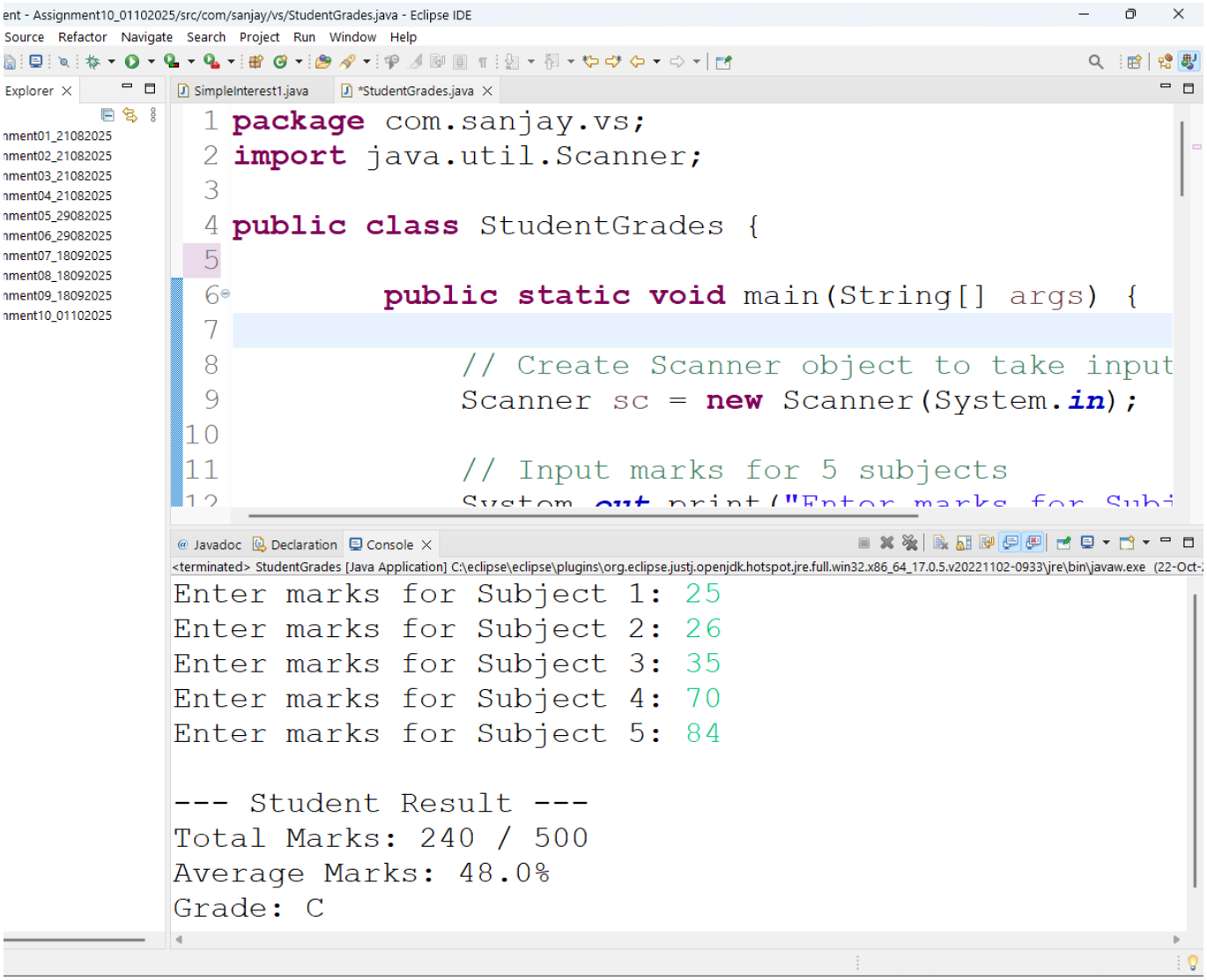
ASSIGNMENT 11

```
package com.sanjay.vs;

import java.util.Scanner;

public class StudentGrades {

	public static void main(String[] args) {

		// Create Scanner object to take input

		Scanner sc = new Scanner(System.in);

		// Input marks for 5 subjects

		System.out.print("Enter marks for Subject 1: ");

		int sub1 = sc.nextInt();
```

```
System.out.print("Enter marks for Subject 2: ");
int sub2 = sc.nextInt();
System.out.print("Enter marks for Subject 3: ");
int sub3 = sc.nextInt();
System.out.print("Enter marks for Subject 4: ");
int sub4 = sc.nextInt();
System.out.print("Enter marks for Subject 5: ");
int sub5 = sc.nextInt();
// Calculate total marks
int total = sub1 + sub2 + sub3 + sub4 + sub5;
// Calculate average
double average = total / 5.0;
// Determine grade based on average
String grade;
if (average > 90) {
grade = "Ex";
} else if (average > 80) {
grade = "A";
} else if (average > 60) {
grade = "B";
} else if (average >= 40) {
 grade = "C";
 } else {
grade = "F";
 }
// Display the result
System.out.println("\n--- Student Result ---");
System.out.println("Total Marks: " + total + " / 500");
System.out.println("Average Marks: " + average + "%");
System.out.println("Grade: " + grade);
// Close the scanner
```

```
        sc.close();
        }
}
```

ASSIGNMENT 11 – OUTPUT



ASSIGNMENT 12

```
package com.san.jayvsa;

import java.util.Scanner;

public class InternetBill {

        public static void main(String[] args) {

                Scanner sc = new Scanner(System.in);

                // Input total data consumed (in GB)
```

```
        System.out.print("Enter total data consumed (in GB): ");
        double data = sc.nextDouble();
        double billAmount;
        // Using if-else logic to calculate the bill
        if (data < 10) {
        billAmount = 300; // Basic charge
        } else if (data <= 30) {
        billAmount = 300 + 5 * (data - 10); // Rs. 5 per GB above 10GB
        } else {
        billAmount = 400 + 3 * (data - 30); // Rs. 3 per GB above 30GB
        }
        // Display the final bill amount
        System.out.println("\n--- Internet Bill Details ---");
        System.out.println("Total Data Consumed: " + data + " GB");
        System.out.println("Total Bill Amount: Rs. " + billAmount);
        sc.close();
    }
}
```

ASSIGNMENT 12 – OUTPUT