

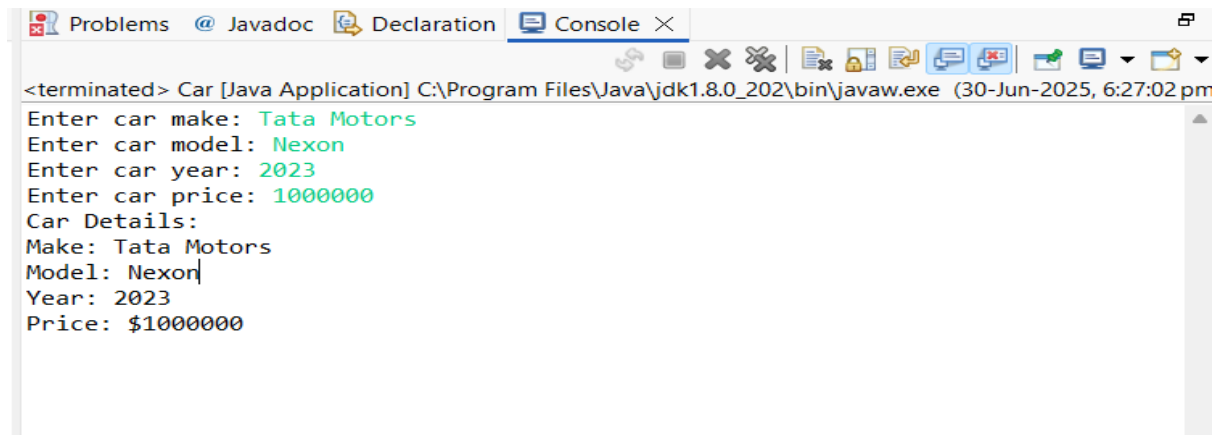
Lab – 02

Assignment – 01 :

```
1 package ConstructorDemo;
2
3 import java.util.Scanner;
4
5 public class Car {
6     private String make;
7     private String model;
8     private short year;
9     private int price;
10
11     // Constructor
12 public Car(String make, String model, short year, int price) {
13     this.make = make;
14     this.model = model;
15     this.year = year;
16     this.price = price;
17 }
18
19 // Method to display car details
20 public void displayCarInfo() {
21     System.out.println("Car Details:");
22     System.out.println("Make: " + make);
23     System.out.println("Model: " + model);
24     System.out.println("Year: " + year);
25     System.out.println("Price: $" + price);
26 }
27
28 // Main method
29 public static void main(String[] args) {
30     Scanner scanner = new Scanner(System.in);
31
32     System.out.print("Enter car make: ");
33     String make = scanner.nextLine();
34
35     System.out.print("Enter car model: ");
36     String model = scanner.nextLine();
37
38     System.out.print("Enter car year: ");
39     short year = scanner.nextShort();
40
41     System.out.print("Enter car price: ");
42     int price = scanner.nextInt();
```

```
43
44     // Creating a Car object
45     Car userCar = new Car(make, model, year, price);
46
47     // Displaying the car information
48     userCar.displayCarInfo();
49
50     scanner.close();
51 }
52 }
```

Output:



The screenshot shows a Java IDE window with the 'Console' tab selected. The output text is as follows:

```
<terminated> Car [Java Application] C:\Program Files\Java\jdk1.8.0_202\bin\javaw.exe (30-Jun-2025, 6:27:02 pm)
Enter car make: Tata Motors
Enter car model: Nexon
Enter car year: 2023
Enter car price: 1000000
Car Details:
Make: Tata Motors
Model: Nexon
Year: 2023
Price: $1000000
```

Assignment-02:

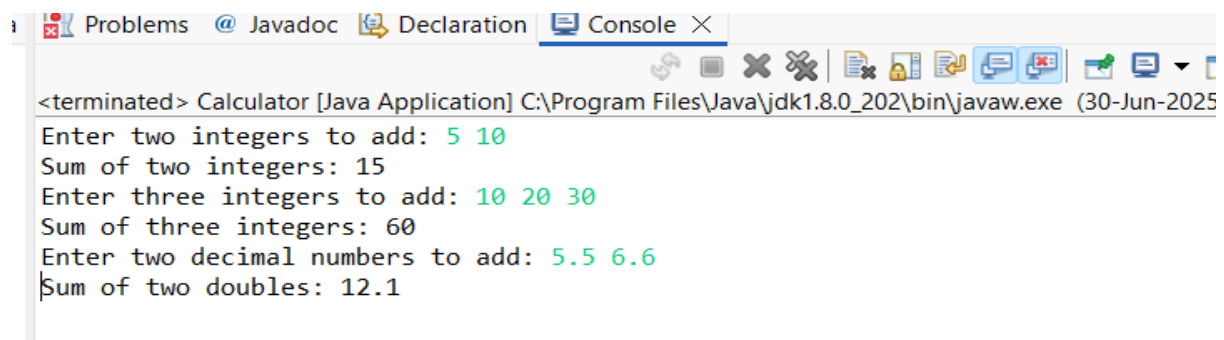
```
1 package ConstructorDemo;
2
3 import java.util.Scanner;
4
5 public class Calculator {
6     // Method 1: add two integers
7     public int add(int a, int b) {
8         return a + b;
9     }
10
11     // Method 2: add three integers
12     public int add(int a, int b, int c) {
13         return a + b + c;
14     }
15
16     // Method 3: add two doubles
17     public double add(double a, double b) {
18         return a + b;
19     }
20
21     // Main method to test method overloading
22     public static void main(String[] args) {
23         Calculator calc = new Calculator();
24         Scanner scanner = new Scanner(System.in);
25
26         // Testing add(int, int)
27         System.out.print("Enter two integers to add: ");
28         int x1 = scanner.nextInt();
29         int x2 = scanner.nextInt();
30         int sum1 = calc.add(x1, x2);
31         System.out.println("Sum of two integers: " + sum1);
32
33         // Testing add(int, int, int)
34         System.out.print("Enter three integers to add: ");
35         int y1 = scanner.nextInt();
36         int y2 = scanner.nextInt();
37         int y3 = scanner.nextInt();
38         int sum2 = calc.add(y1, y2, y3);
39         System.out.println("Sum of three integers: " + sum2);
40
41         // Testing add(double, double)
42         System.out.print("Enter two decimal numbers to add: ");
```

```

43         double d1 = scanner.nextDouble();
44         double d2 = scanner.nextDouble();
45         double sum3 = calc.add(d1, d2);
46         System.out.println("Sum of two doubles: " + sum3);
47
48         scanner.close();
49     }
50 }
51

```

Output:



The screenshot shows a Java IDE window with a tab labeled 'Console'. The console output is as follows:

```

<terminated> Calculator [Java Application] C:\Program Files\Java\jdk1.8.0_202\bin\javaw.exe (30-Jun-2025)
Enter two integers to add: 5 10
Sum of two integers: 15
Enter three integers to add: 10 20 30
Sum of three integers: 60
Enter two decimal numbers to add: 5.5 6.6
Sum of two doubles: 12.1

```

Assignment-03:

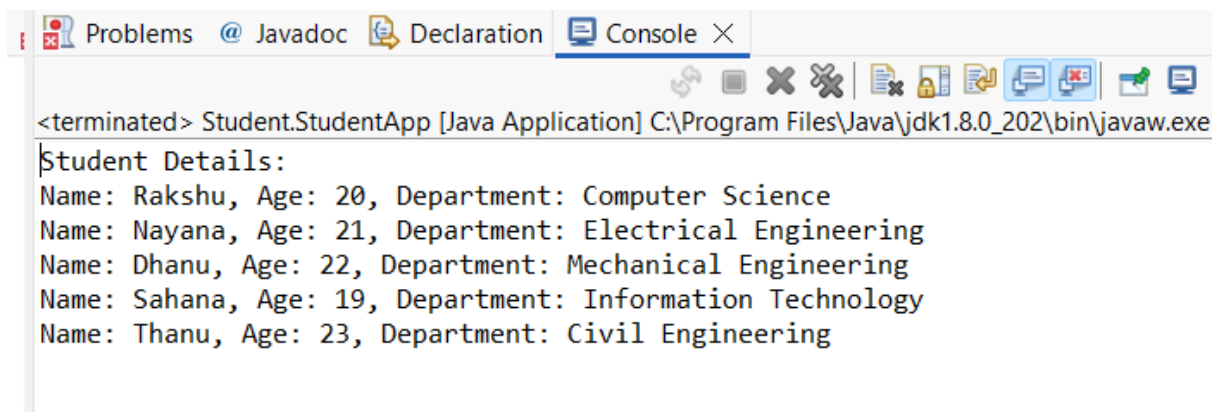
```

1  package ConstructorDemo;
2
3  public class Student {
4      private String name;
5      private int age;
6      private String department;
7
8      // Constructor
9      public Student(String name, int age, String department) {
10         this.name = name;
11         this.age = age;
12         this.department = department;
13     }
14
15     // Getter methods (optional)
16     public String getName() {
17         return name;
18     }
19
20     public int getAge() {
21         return age;
22     }
23
24     public String getDepartment() {
25         return department;
26     }
27
28     // Method to display student details
29     public void displayStudentInfo() {
30         System.out.println("Name: " + name + ", Age: " + age + ", Department: " + department);
31     }
32
33
34     public static class StudentApp {
35         public static void main(String[] args) {
36             // Create 5 Student objects
37             Student s1 = new Student("Rakshu", 20, "Computer Science");
38             Student s2 = new Student("Nayana", 21, "Electrical Engineering");
39             Student s3 = new Student("Dhanu", 22, "Mechanical Engineering");
40             Student s4 = new Student("Sahana", 19, "Information Technology");
41             Student s5 = new Student("Thanu", 23, "Civil Engineering");
42

```

```
42
43         // Display student data
44         System.out.println("Student Details:");
45         s1.displayStudentInfo();
46         s2.displayStudentInfo();
47         s3.displayStudentInfo();
48         s4.displayStudentInfo();
49         s5.displayStudentInfo();
50     }
51 }
52 }
```

Output:



The screenshot shows a Java IDE window with the 'Console' tab selected. The console output displays the results of a Java application named 'Student.StudentApp'. The output starts with a prompt '<terminated>' followed by the application name and path. Below this, the text 'Student Details:' is printed, followed by five lines of student information, each containing a name, age, and department.

```
<terminated> Student.StudentApp [Java Application] C:\Program Files\Java\jdk1.8.0_202\bin\javaw.exe
Student Details:
Name: Rakshu, Age: 20, Department: Computer Science
Name: Nayana, Age: 21, Department: Electrical Engineering
Name: Dhanu, Age: 22, Department: Mechanical Engineering
Name: Sahana, Age: 19, Department: Information Technology
Name: Thanu, Age: 23, Department: Civil Engineering
```

