Assignment-1.

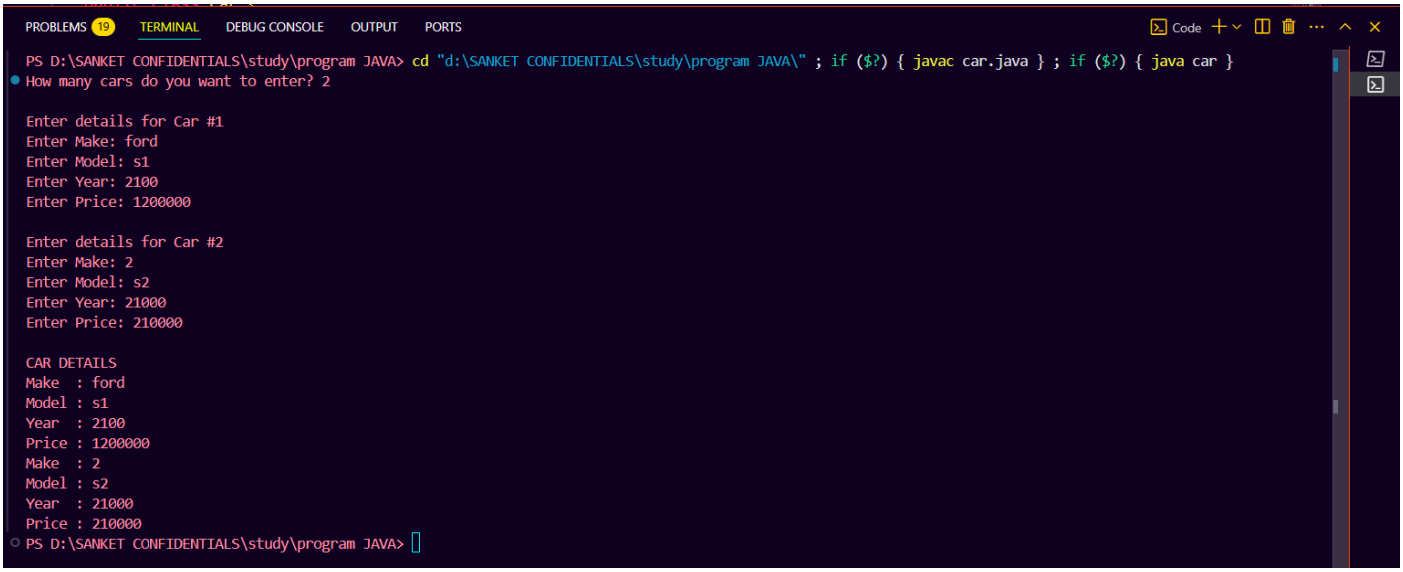
- Write a Java program named Car
- The Car class should have the following attributes: make (String), model (String) , year (short) , and price(int) .
- The car class should have a constructor that takes all the attributes.
- Add a main method to instantiate car objects.
- The program should allow the user to create and display objects of each Car Class.

SOURCE CODE :

```
import java.util.Scanner;
public class car {
   String make;
   String model;
   short year;
   int price;

   public car(String make, String model, short year, int price) {
      this.make = make;
      this.model = model;
      this.year = year;
      this.price = price;
   }

   public void displayInfo() {
      System.out.println("Make  : " + make);
      System.out.println("Model : " + model);
      System.out.println("Year  : " + year);
      System.out.println("Price : " + price);
   }
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);

      System.out.print("How many cars do you want to enter? ");
      int count = sc.nextInt();
      sc.nextLine();

      car[] cars = new car[count];

      for (int i = 0; i < count; i++) {
         System.out.println("\nEnter details for Car #" + (i + 1));

         System.out.print("Enter Make: ");
         String make = sc.nextLine();

         System.out.print("Enter Model: ");
         String model = sc.nextLine();

         System.out.print("Enter Year: ");
         short year = sc.nextShort();

         System.out.print("Enter Price: ₹");
         int price = sc.nextInt();
         sc.nextLine();
         cars[i] = new car(make, model, year, price);
      }
      System.out.println("\nCAR DETAILS");
```

```
        for (car c : cars) {
            c.displayInfo();
        }
        sc.close();
    }
}
```

OUTPUT :



Assignment-2.

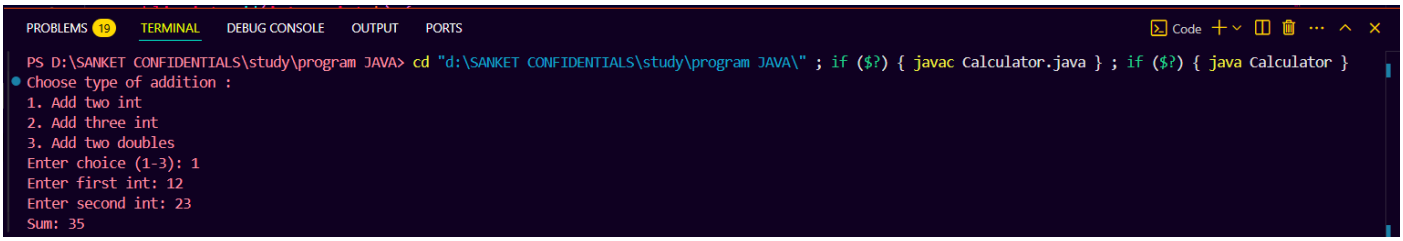
- Write a Java program that demonstrates method overloading by creating a class called Calculator.
- Add three methods called add().
- The first add() method should take two int variables as arguments and return their sum as int.
- The second add() method should take three int variables as arguments and return their sum as int.
- The third add() method should take two doubles as arguments and return their sum as double.
- The program should allow the user to display the results of each method.

SOURCE CODE :

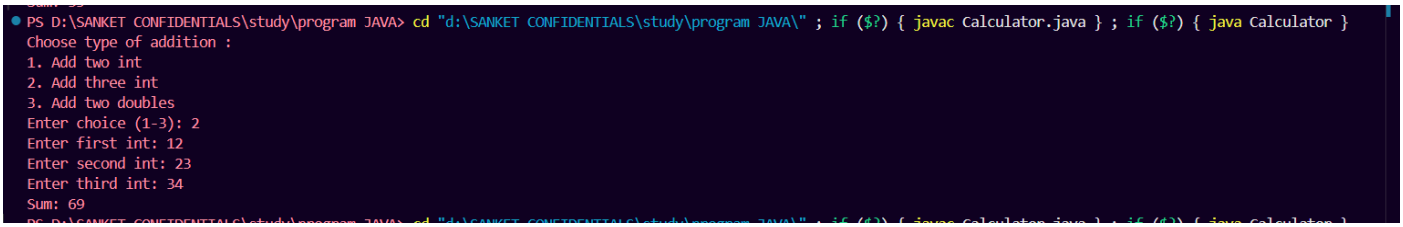
```
import java.util.Scanner;

public class Calculator {
   public int add(int a, int b) {
      return a + b;
   }
   public int add(int a, int b, int c) {
      return a + b + c;
   }
   public double add(double a, double b) {
      return a + b;
   }
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      Calculator calc = new Calculator();

      System.out.println("Choose type of addition :");
      System.out.println("1. Add two int");
      System.out.println("2. Add three int");
      System.out.println("3. Add two doubles");
      System.out.print("Enter choice (1-3): ");
      int choice = sc.nextInt();

      switch (choice) {
         case 1:
            System.out.print("Enter first int: ");
            int a = sc.nextInt();
            System.out.print("Enter second int: ");
            int b = sc.nextInt();
            System.out.println("Sum: " + calc.add(a, b));
            break;
         case 2:
            System.out.print("Enter first int: ");
            int x = sc.nextInt();
            System.out.print("Enter second int: ");
            int y = sc.nextInt();
            System.out.print("Enter third int: ");
            int z = sc.nextInt();
            System.out.println("Sum: " + calc.add(x, y, z));
            break;
         case 3:
            System.out.print("Enter first double: ");
            double p = sc.nextDouble();
            System.out.print("Enter second double: ");
            double q = sc.nextDouble();
            System.out.println("Sum: " + calc.add(p, q));
```

```
            break;
        default:
            System.out.println("Invalid choice.");
    }

    sc.close();
  }
}
```

OUTPUT CASE 1:



OUTPUT CASE 2 :



OUTPUT CASE 3:

Assignment-3.

- Create a Java Bean Class Student.
- Add three attributes ○ private String name; ○ private int age; ○ private String department;
- Add a constructor that takes all three attributes as parameters. ● Add setter and getter methods
- Compile the program

SOURCE CODE :

```
public class Student1 {
   private String name;
   private int age;
   private String department;

   public Student1(String name, int age, String department) {
      this.name = name;
      this.age = age;
      this.department = department;
   }
   public String getName() {
      return name;
   }
   public void setName(String name) {
      this.name = name;
   }
   public int getAge() {
      return age;
   }
   public void setAge(int age) {
      this.age = age;
   }
   public String getDepartment() {
      return department;
   }
   public void setDepartment(String department) {
      this.department = department;
   }
   public static void main(String[] args) {
      Student1 student = new Student1("sanket ", 21, "computer engineering");
      System.out.println("name : "+student.getName());
      System.out.println("age : "+student.getAge());
      System.out.println("dept : "+student.getDepartment());

   }

}
```

OUTPUT :