

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();

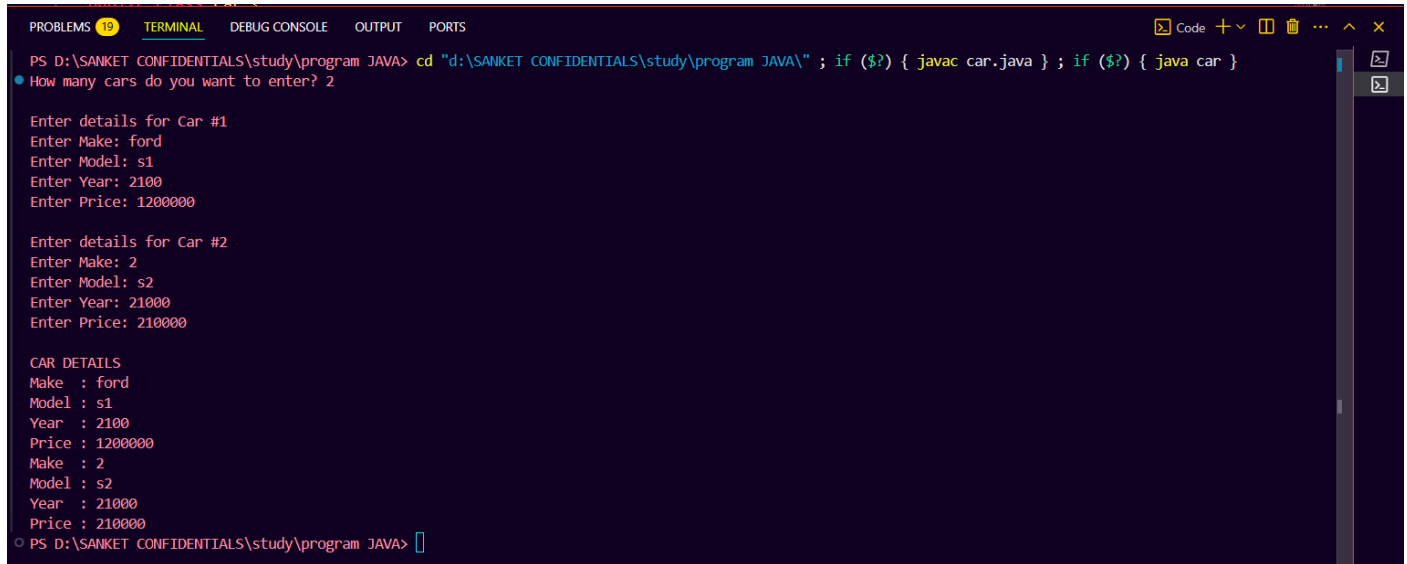
            System.out.print("Enter Model: ");
            String model = sc.nextLine();

            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 :



```
PROBLEMS (19) TERMINAL DEBUG CONSOLE OUTPUT PORTS
PS D:\SANKET CONFIDENTIALS\study\program JAVA> cd "d:\SANKET CONFIDENTIALS\study\program JAVA\" ; if ($?) { javac car.java } ; if ($?) { java car }
• How many cars do you want to enter? 2

Enter details for Car #1
Enter Make: ford
Enter Model: s1
Enter Year: 2100
Enter Price: 1200000

Enter details for Car #2
Enter Make: 2
Enter Model: s2
Enter Year: 21000
Enter Price: 210000

CAR DETAILS
Make : ford
Model : s1
Year : 2100
Price : 1200000
Make : 2
Model : s2
Year : 21000
Price : 210000
PS D:\SANKET CONFIDENTIALS\study\program JAVA>
```

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:

```

PS D:\SANKET CONFIDENTIALS\study\program JAVA> cd "d:\SANKET CONFIDENTIALS\study\program JAVA\" ; if ($?) { javac Calculator.java } ; if ($?) { java Calculator }
Choose type of addition :
1. Add two int
2. Add three int
3. Add two doubles
Enter choice (1-3): 1
Enter first int: 1
Enter second int: 23
Sum: 35

```

OUTPUT CASE 2 :

```

PS D:\SANKET CONFIDENTIALS\study\program JAVA> cd "d:\SANKET CONFIDENTIALS\study\program JAVA\" ; if ($?) { javac Calculator.java } ; if ($?) { java Calculator }
Choose type of addition :
1. Add two int
2. Add three int
3. Add two doubles
Enter choice (1-3): 2
Enter first int: 12
Enter second int: 23
Enter third int: 34
Sum: 69
PS D:\SANKET CONFIDENTIALS\study\program JAVA> cd "d:\SANKET CONFIDENTIALS\study\program JAVA\" ; if ($?) { javac Calculator.java } ; if ($?) { java Calculator }

```

OUTPUT CASE 3:

```

Sum: 69
PS D:\SANKET CONFIDENTIALS\study\program JAVA> cd "d:\SANKET CONFIDENTIALS\study\program JAVA\" ; if ($?) { javac Calculator.java } ; if ($?) { java Calculator }
Choose type of addition :
1. Add two int
2. Add three int
3. Add two doubles
Enter choice (1-3): 3
Enter first double: 12.32
Enter second double: 23.43
Sum: 35.75
PS D:\SANKET CONFIDENTIALS\study\program JAVA>

```

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;
    }

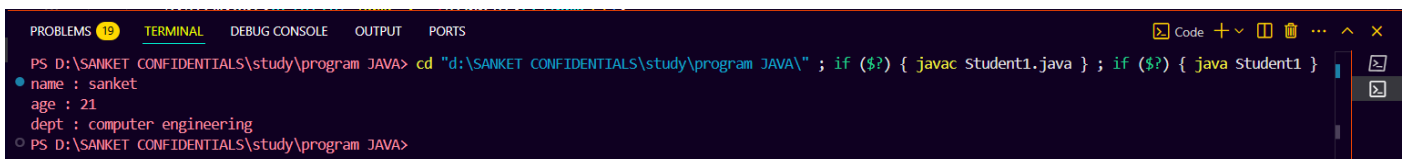
    public void setAge(int age) {
        this.age = age;
    }

    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 :



```
PROBLEMS 19 TERMINAL DEBUG CONSOLE OUTPUT PORTS
PS D:\SANKET CONFIDENTIALS\study\program JAVA> cd "d:\SANKET CONFIDENTIALS\study\program JAVA\" ; if ($?) { javac Student1.java } ; if ($?) { java Student1 }
name : sanket
age : 21
dept : computer engineering
PS D:\SANKET CONFIDENTIALS\study\program JAVA>
```