

ASSIGNMENT-2:

1. Create a class called "Car" that has the following properties: make, model, year, color, and price. Include a constructor and getter and setter methods for each property.

<https://codeshare.io/j0dgxK>

```
car.java ×
1 package assignment2;
2 public class car {
3     // TODO Auto-generated method stub
4     private String make;
5     private String model;
6     private int year;
7     private String color;
8     private double price;
9     // constructor for the Car class
10    public car(String make, String model, int year, String color, double price) {
11        this.make = make;
12        this.model = model;
13        this.year = year;
14        this.color = color;
15        this.price = price;
16    }
17    // getters and setters for the make property
18    public String getMake() {
19        return make;
20    }
21    public void setMake(String make) {
22        this.make = make;
23    }
24    // getters and setters for the model property
25    public String getModel() {
26        return model;
27    }
28    }
29    }
30    }
31    }
32    }
33    }
34    }
35    }
36    }
37    }
38    }
39    }
40    }
41    }
42    }
43    }
44    }
45    }
```

Problems Javadoc Declaration Console ×

<terminated> car [Java Application] C:\Users\Mahadrajdk-19\bin\javaw.exe (02-Mar-2023, 5:20:15 pm – 5:20:15 pm) [pid: 516]

Make: Volkswagen
Model: Vento
Year: 2022
Color: Blue
Price: rs 1600000.0

2. Create a class called "Student" that has the following properties: name, age, gender, grade, and GPA. Include a constructor and getter and setter methods for each property.

<https://codeshare.io/j0dgJL>

```
student.java ×
20
21    public int getAge() {
22        return age;
23    }
24    public String getGender() {
25        return gender;
26    }
27    public int getGrade() {
28        return grade;
29    }
30    public double getGPA() {
31        return GPA;
32    }
33    // Setter methods
34    public void setName(String name) {
35        this.name = name;
36    }
37    public void setAge(int age) {
38        this.age = age;
39    }
40    public void setGender(String gender) {
41        this.gender = gender;
42    }
43    public void setGrade(int grade) {
44        this.grade = grade;
45    }
46    }
```

Problems Javadoc Declaration Console ×

<terminated> student [Java Application] C:\Users\Mahadrajdk-19\bin\javaw.exe (02-Mar-2023, 5:20:15 pm – 5:20:15 pm) [pid: 516]

Student name: Ram
Student age: 23
Student gender: Male
Student grade: 10
Student GPA: 4.5
Updated student GPA: 4.0

3. Create a class called "Circle" that has the following properties: radius, diameter, and area. Include a constructor and methods to calculate the diameter and area of the circle.

<https://codeshare.io/JbMDnZ>

```
circle.java ×
10 public circle(double radius) {
11     this.radius = radius;
12     this.diameter = radius * 2;
13     this.area = Math.PI * Math.pow(radius, 2);
14 }
15 public double getRadius() {
16     return radius;
17 }
18
19 public double getDiameter() {
20     return diameter;
21 }
22
23 public double getArea() {
24     return area;
25 }
26 public static void main(String[] args) {
27     circle circle = new circle(9.0);
28
29     System.out.println("Circle radius: " + circle.getRadius());
30     System.out.println("Circle diameter: " + circle.getDiameter());
31     System.out.println("Circle area: " + circle.getArea());
32 }
33
34 }
35
```

Problems Javadoc Declaration Console ×

<terminated> circle [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 5:29:47 pm - 5:29:47 pm) [pid: 16136]
Circle radius: 9.0
Circle diameter: 18.0
Circle area: 254.46900494077323

4. Create a class called "Rectangle" that has the following properties: length, width, and area. Include a constructor and a method to calculate the area of the rectangle.

<https://codeshare.io/LwEDpV>

```
rectangle.java ×
5 // TODO Auto-generated method stub
6 //Rectangle Class
7 double length;
8 double width;
9 double area;
10
11 rectangle(double length,double width){
12     this.length=length;
13     this.width=width;
14     this.area=length*width;
15 }
16
17 public double getArea()
18 {
19     return area;
20 }
21
22 public static void main(String[] args) {
23     // TODO Auto-generated method stub
24     rectangle r=new rectangle(3,8);
25
26     double area=r.getArea();
27     System.out.println("Area : "+area);
28 }
29
30
```

Problems Javadoc Declaration Console ×

<terminated> rectangle [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 5:46:39 pm - 5:46:40 pm) [pid: 16136]
Area : 24.0

5. Create a class called "BankAccount" that has the following properties: account number, account balance, account holder name, and account type. Include a constructor and methods to deposit and withdraw money from the account.

<https://codeshare.io/9OLnq8>

```
bankaccount.java ×
36
37 public String getAccountHolderName() {
38     return accountHolderName;
39 }
40
41 public String getAccountType() {
42     return accountType;
43 }
44 public static void main(String[] args) {
45     bankaccount myAccount = new bankaccount("123456789", 1000.0, "John Doe", "checkin
46     System.out.println(myAccount.getAccountBalance()); // prints 1000.0
47
48     myAccount.deposit(500.0);
49     System.out.println(myAccount.getAccountBalance()); // prints 1500.0
50
51     myAccount.withdraw(2000.0); // prints "Insufficient funds"
52     System.out.println(myAccount.getAccountBalance()); // prints 1500.0
53
54     myAccount.withdraw(1000.0);
55     System.out.println(myAccount.getAccountBalance()); // prints 500.0
56 } // TODO Auto-generated method stub
57
58
59
60
61

Problems Javadoc Declaration Console ×
<terminated> bankaccount [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 5:54:49 pm – 5:54:50 pm) [pid: 528]
1000.0
1500.0
Insufficient funds
1500.0
500.0
```

6. Create a class called "Person" that has the following properties: name, age, address, phone number, and email address. Include a constructor and getter and setter methods for each property.

<https://codeshare.io/dwQgRZ>

```
*person.java ×
4 // public String getPhoneNumber() {
48     return phoneNumber;
49 }
50
51 public void setPhoneNumber(String phoneNumber) {
52     this.phoneNumber = phoneNumber;
53 }
54
55 // Getter and Setter methods for emailAddress
56 public String getEmailAddress() {
57     return emailAddress;
58 }
59
60 public void setEmailAddress(String emailAddress) {
61     this.emailAddress = emailAddress;
62 }
63 }
64
65 // Main function for testing
66 public static void main(String[] args) {
67     person person1 = new person("John", 20, "Bengaluru", "8734601923", "john@email.c
68     System.out.println(person1.getName());
69     person1.setAddress("Bengaluru");
70     System.out.println(person1.getAddress());
71 }
72 }

Problems Javadoc Declaration Console ×
<terminated> person [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 6:13:30 pm – 6:13:32 pm) [pid: 18008]
John
Bengaluru
```

7. Create a class called "Animal" that has the following properties: name, species, age, and weight. Include a constructor and getter and setter methods for each property

<https://codeshare.io/78mdvr>

```
animal.java x
54= public static void main(String[] args) {
55     Scanner in = new Scanner(System.in);
56
57     System.out.print("Enter name: ");
58     String name = in.nextLine();
59
60     System.out.print("Enter species: ");
61     String species = in.nextLine();
62
63     System.out.print("Enter age: ");
64     int age = in.nextInt();
65
66     System.out.print("Enter weight: ");
67     double weight = in.nextDouble();
68
69     // Create Animal object using user input
70     animal animal = new animal(name, species, age, weight);
71
72     // Print out animal object properties
73     System.out.println("Name: " + animal.getName());
74     System.out.println("Species: " + animal.getSpecies());
75     System.out.println("Age: " + animal.getAge());
76     System.out.println("Weight: " + animal.getWeight());
77 }
78 }

Problems Javadoc Declaration Console x
animal [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 8:19:41 pm) [pid: 7832]
Enter name: Raj
Enter species: H animal [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 8:19:4
Enter age: 23
Enter weight: 67
```

8. Create a class called "Triangle" that has the following properties: base, height, and area. Include a constructor and a method to calculate the area of the triangle

<https://codeshare.io/wnvp7B>

```
triangle.java x
24     return height;
25 }
26= public void setHeight(double height) {
27     this.height = height;
28     this.area = calculateArea();
29 }
30 // Getter method for area
31= public double getArea() {
32     return area;
33 }
34 // Method to calculate the area of the triangle
35= public double calculateArea() {
36     return 0.5 * base * height;
37 }
38 // Main function for testing
39= public static void main(String[] args) {
40     triangle triangle1 = new triangle(4.0, 5.0);
41     System.out.println(triangle1.getArea());
42     triangle1.setHeight(6.0);
43     System.out.println(triangle1.getArea());
44 }
45 }
46 }
47 }

Problems Javadoc Declaration Console x
<terminated> triangle [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 8:3
10.0
12.0
```

9. Create a class called "Employee" that has the following properties: name, employee ID, department, job title, and salary. Include a constructor and getter and setter methods for each property

<https://codeshare.io/VZEqJ4>

```
triangle.java employee.java ×
1 package assignment2;
2
3 public class employee {
4
5     private String name;
6     private int employeeID;
7     private String department;
8     private String jobTitle;
9     private double salary;
10    // Constructor
11    public employee(String name, int employeeID, String department, String jobTitle, double salary) {
12        this.name = name;
13        this.employeeID = employeeID;
14        this.department = department;
15        this.jobTitle = jobTitle;
16        this.salary = salary;
17    }
18    // Getter and Setter methods for name
19    public String getName() {
20        return name;
21    }
22    public void setName(String name) {
23        this.name = name;
24    }
25 }
```

Problems Javadoc Declaration Console ×

<terminated> employee [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 8:39:43 pm – 8:39:43 pm) [pid: 10728]
Shashank
60000.0
55000.0

10. Create a class called "Address" that has the following properties: street, city, state, zip code, and country. Include a constructor and getter and setter methods for each property.

<https://codeshare.io/LwEpn7>

```
address.java ×
62 String street = scanner.nextLine();
63
64 System.out.print("Enter city: ");
65 String city = scanner.nextLine();
66
67 System.out.print("Enter state: ");
68 String state = scanner.nextLine();
69
70 System.out.print("Enter ZIP code: ");
71 String zipCode = scanner.nextLine();
72
73 System.out.print("Enter country: ");
74 String country = scanner.nextLine();
75
76 address address = new address(street, city, state, zipCode, country)
77
78 System.out.println("Street address: " + address.getStreet());
79 System.out.println("City: " + address.getCity());
80 System.out.println("State: " + address.getState());
81 System.out.println("ZIP code: " + address.getZipCode());
82 System.out.println("Country: " + address.getCountry());
83 }
84 }
85 }
```

Problems Javadoc Declaration Console ×

address [Java Application] C:\Users\Mahadra\jdk-19\bin\javaw.exe (02-Mar-2023, 8:45:41 pm) [pid: 9336]
Enter street address: #141,Housing Board
Enter city: T Narasipura
Enter state: Karnataka
Enter ZIP code: 571124
Enter country: India

