

## Assignment-02

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.

Code <https://codeshare.io/VZEnKO>

```
1 package assign02;
2
3 public class Car {
4     // properties of the Car class
5     private String make;
6     private String model;
7     private int year;
8     private String color;
9     private double price;
10    // constructor for the Car class
11    public Car(String make, String model, int year, String color, double price) {
12        this.make = make;
13        this.model = model;
14        this.year = year;
15        this.color = color;
16        this.price = price;
17    }
18    // getters and setters for the make property
19    public String getMake() {
20        return make;
21    }
22    public void setMake(String make) {
23        this.make = make;
24    }
25    // getters and setters for the model property
26    public String getModel() {
```

Problems @ Javadoc Declaration Console ×

```
<terminated> Car [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:35:28 pm – 10:35:30 pm) [pid: 1
Model: Corolla
Year: 2022
Color: Blue
Price: $20000.0
```

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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.

Code <https://codeshare.io/90Lxpg>

```
1 package assign02;
2
3 public class Student {
4     private String name;
5     private int age;
6     private char gender;
7     private int grade;
8     private double GPA;
9     // Constructor
10    public Student(String name, int age, char gender, int grade, double GPA) {
11        this.name = name;
12        this.age = age;
13        this.gender = gender;
14        this.grade = grade;
15        this.GPA = GPA;
16    }
17    // Getters
18    public String getName() {
19        return name;
20    }
21    public int getAge() {
22        return age;
23    }
24    public char getGender() {
25        return gender;
26    }
27    ...
```

Problems @ Javadoc Declaration Console ×

<terminated> Student [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:36:23 pm – 10:36:25 pm)

M  
12  
3.8  
3.9

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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.

Code <https://codeshare.io/eV6W09>

```
1 package assign02;
2
3 public class circle {
4     private double radius;
5     private double diameter;
6     private double area;
7     // Constructor
8     public circle(double radius) {
9         this.setRadius(radius);
10        this.diameter = radius * 2;
11        this.area = Math.PI * radius * radius;
12    }
13    // Method to calculate diameter
14    public double calculateDiameter() {
15        return diameter;
16    }
17    // Method to calculate area
18    public double calculateArea() {
19        return area;
20    }
21    // Main function for testing
22    public static void main(String[] args) {
23        circle circle1 = new circle(5);
24        System.out.println(circle1.calculateDiameter()); // Output: 10.0
25        System.out.println(circle1.calculateArea()); // Output: 78.53981633974483
26    }
27 }
```

Problems @ Javadoc Declaration Console ×

<terminated> circle [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:39:03 pm – 10:39:03 pm) [p  
10.0  
78.53981633974483

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.

Code <https://codeshare.io/3Ab891>

```
1 package assign02;
2
3 public class Rectangle {
4     private double length;
5     private double width;
6     private double area;
7     // Constructor
8     public Rectangle(double length, double width) {
9         this.setLength(length);
10        this.setWidth(width);
11        this.area = length * width;
12    }
13    // Method to calculate area
14    public double calculateArea() {
15        return area;
16    }
17    // Main function for testing
18    public static void main(String[] args) {
19        Rectangle rectangle1 = new Rectangle(5, 10);
20        System.out.println(rectangle1.calculateArea()); // Output: 50.0
21    }
22    public double getLength() {
23        return length;
24    }
25    public void setLength(double length) {
26        this.length = length;
27    }
```

Problems @ Javadoc Declaration Console ×

<terminated> Rectangle [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:40:46 pm – 10:40:49 pm)  
50.0

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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.

code <https://codeshare.io/yo0bPw>

```
1 package assign02;
2 public class BankAccount {
3     private String accountNumber;
4     private double accountBalance;
5     private String accountHolderName;
6     private String accountType;
7     // Constructor
8     public BankAccount(String accountNumber, double accountBalance, String accountHolderName, String accountType) {
9         this.setAccountNumber(accountNumber);
10        this.setAccountBalance(accountBalance);
11        this.setAccountHolderName(accountHolderName);
12        this.setAccountType(accountType);
13    }
14    // Method to deposit money
15    public void deposit(double amount) {
16        accountBalance += amount;
17    }
18    // Method to withdraw money
19    public void withdraw(double amount) {
20        if (accountBalance >= amount) {
21            accountBalance -= amount;
22        } else {
23            System.out.println("Insufficient funds!");
24        }
25    }
26    // Main function for testing
27    public static void main(String[] args) {
28        BankAccount account = new BankAccount("1234567890", 1500.0, "John Doe", "Savings");
29        account.deposit(500.0);
30        account.withdraw(1000.0);
31    }
32 }
```

Problems @ Javadoc Declaration Console ×

```
<terminated> BankAccount [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:42:37 pm - 10:42:39 pm)
1500.0
Insufficient funds!
1000.0
```

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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.

Code <https://codeshare.io/ZJEkDd>

```
1 package assign02;
2
3 public class Person {
4     private String name;
5     private int age;
6     private String address;
7     private String phoneNumber;
8     private String emailAddress;
9     // Constructor
10    public Person(String name, int age, String address, String phoneNumber, String ema
11        this.name = name;
12        this.age = age;
13        this.address = address;
14        this.phoneNumber = phoneNumber;
15        this.emailAddress = emailAddress;
16    }
17    // Getter and Setter methods for name
18    public String getName() {
19        return name;
20    }
21    public void setName(String name) {
22        this.name = name;
23    }
24    // Getter and Setter methods for age
25    public int getAge() {
26        return age;
27    }
```

Problems @ Javadoc Declaration Console ×

<terminated> Person [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:44:38 pm – 10:44:40 pm) [pid:  
John Doe  
456 Elm St

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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.

Code <https://codeshare.io/km8qKw>

```
1 package assign02;
2 public class Animal {
3     private String name;
4     private String species;
5     private int age;
6     private double weight;
7     // Constructor
8     public Animal(String name, String species, int age, double weight) {
9         this.name = name;
10        this.species = species;
11        this.age = age;
12        this.weight = weight;
13    }
14    // Getter and Setter methods for name
15    public String getName() {
16        return name;
17    }
18    public void setName(String name) {
19        this.name = name;
20    }
21    // Getter and Setter methods for species
22    public String getSpecies() {
23        return species;
24    }
25    public void setSpecies(String species) {
26        this.species = species;
27    }
```

Problems @ Javadoc Declaration Console ×

<terminated> Animal [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:49:31 pm – 10:49:36 pm) [p  
Fluffy  
11.0

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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.

Code <https://codeshare.io/Ad1WyN>

```
1 package assign02;
2 public class Triangle {
3     private double base;
4     private double height;
5     private double area;
6     // Constructor
7     public Triangle(double base, double height) {
8         this.base = base;
9         this.height = height;
10        this.area = calculateArea();
11    }
12    // Getter and Setter methods for base
13    public double getBase() {
14        return base;
15    }
16    public void setBase(double base) {
17        this.base = base;
18        this.area = calculateArea();
19    }
20    // Getter and Setter methods for height
21    public double getHeight() {
22        return height;
23    }
24    public void setHeight(double height) {
25        this.height = height;
26        this.area = calculateArea();
27    }
28    private double calculateArea() {
29        return 0.5 * base * height;
30    }
31 }
```

Problems @ Javadoc Declaration Console ×

<terminated> Triangle [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:50:56 pm – 10:50:59 pm)

10.0  
12.0

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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.

Code <https://codeshare.io/JbMJLE>

```
1 package assign02;
2
3 public class Employee {
4     private String name;
5     private int employeeID;
6     private String department;
7     private String jobTitle;
8     private double salary;
9     // Constructor
10    public Employee(String name, int employeeID, String department, String jobTitle, d
11        this.name = name;
12        this.employeeID = employeeID;
13        this.department = department;
14        this.jobTitle = jobTitle;
15        this.salary = salary;
16    }
17    // Getter and Setter methods for name
18    public String getName() {
19        return name;
20    }
21    public void setName(String name) {
22        this.name = name;
23    }
24    // Getter and Setter methods for employeeID
25    public int getEmployeeID() {
26        return employeeID;
27    }
```

Problems @ Javadoc Declaration Console ×

<terminated> Employee [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:52:29 pm – 10:52:32 pm) [

John Smith

50000.0

55000.0

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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.

Code <https://codeshare.io/0gvejv>

```
1 package assign02;
2 public class Address {
3     private String street;
4     private String city;
5     private String state;
6     private String zipCode;
7     private String country;
8     // Constructor
9     public Address(String street, String city, String state, String zipCode, String co
10    this.street = street;
11    this.city = city;
12    this.state = state;
13    this.zipCode = zipCode;
14    this.country = country;
15 }
16 // Getter and Setter methods for street
17 public String getStreet() {
18     return street;
19 }
20 public void setStreet(String street) {
21     this.street = street;
22 }
23 // Getter and Setter methods for city
24 public String getCity() {
25     return city;
26 }
```

Problems Javadoc Declaration Console ×

<terminated> Address [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 10:57:51 pm – 10:57:53 pm) [pi

Anytown

12345

67890

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