Assignment-2

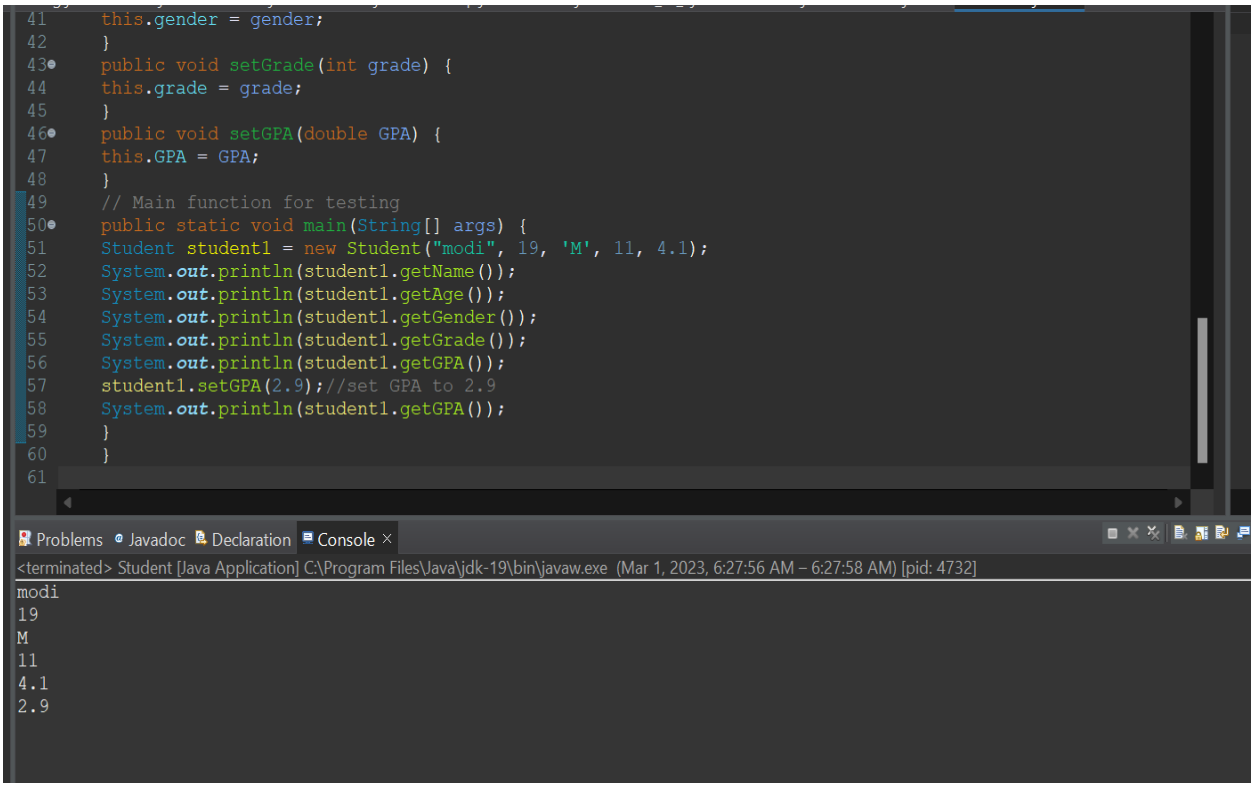
1) Create a class called "Car" that has the following properties: make, model, year, color, and price. Include a constructor and getter and setter methods for each property.
   Code: https://codeshare.io/8plkbv

```
46    // getters and setters for the price property
47    public double getPrice() {
48    return price;
49    }
50    public void setPrice(double price) {
51    this.price = price;
52    }
53    public static void main(String[] args) {
54    // Create a new Car object
55    car myCar = new car("Maruti", "Ciaz", 2022, "White",1300000.0);
56    // Set the color of the car
57    myCar.setColor("Blue");
58    // Print out the make, model, year, color, and price of the car
59    System.out.println("Make: " + myCar.getMake());
60    System.out.println("Model: " + myCar.getModel());
61    System.out.println("Year: " + myCar.getYear());
62    System.out.println("Color: " + myCar.getColor());
63    System.out.println("Price: rs " + myCar.getPrice());
64    }
65    }
66
```

Problems Javadoc Declaration Console

```
<terminated> car [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (Mar 1, 2023, 6:22:05 AM – 6:22:08 AM) [pid: 3916]
Make: Maruti
Model: Ciaz
Year: 2022
Color: Blue
Price: rs 1300000.0
```

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.
Code: https://codeshare.io/mpbXAj



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/0gve6l

```java
package as7;

public class circle {
private double radius;
private double diameter;
private double area;
// Constructor
public circle(double radius) {
this.setRadius(radius);
this.diameter = radius * 2;
this.area = Math.PI * radius * radius;
}
// Method to calculate diameter
public double calculateDiameter() {
return diameter;
}
// Method to calculate area
public double calculateArea() {
return area;
}
// Main function for testing
```

Problems Javadoc Declaration Console

```
<terminated> circle [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Mar 1, 2023, 6:32:07 AM – 6:32:11 AM) [pid: 8016]
14.0
153.93804002589985
```

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/gL9vrR

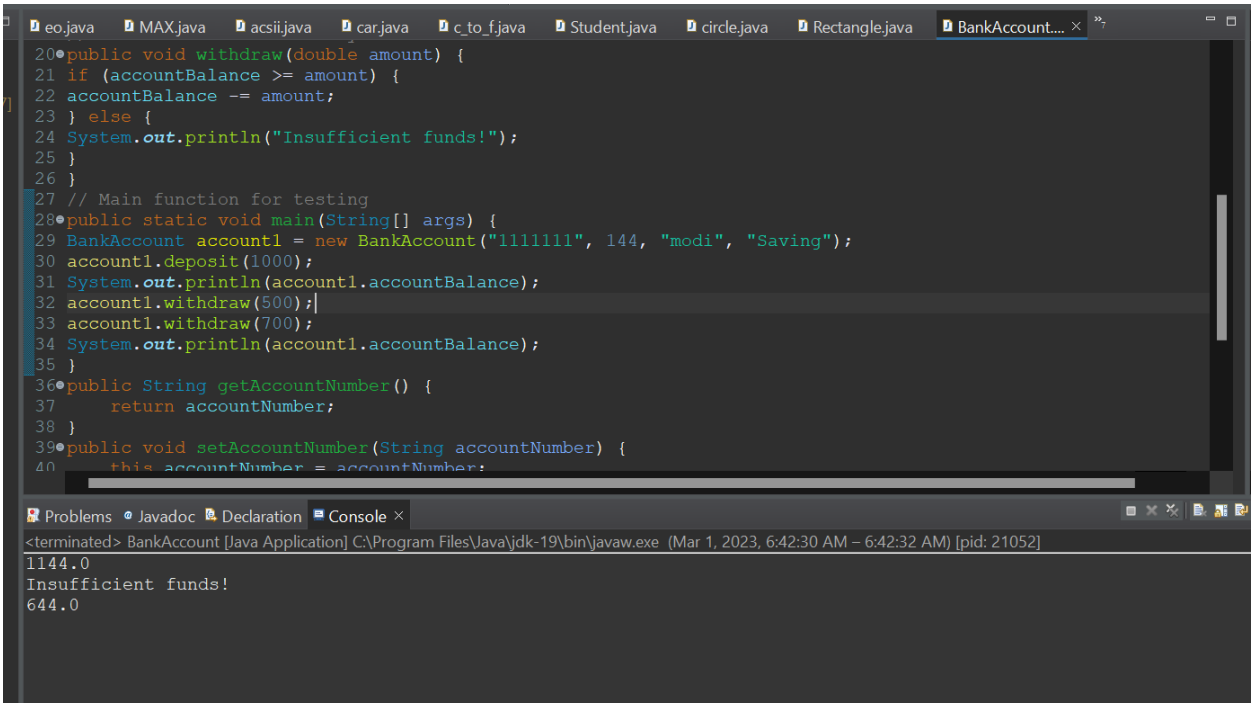
```
14 public double calculateArea() {
15 return area;
16 }
17 // Main function for testing
18 public static void main(String[] args) {
19 Rectangle rectangle1 = new Rectangle(7, 5);
20 System.out.println(rectangle1.calculateArea());
21 }
22 public double getLength() {
23     return length;
24 }
25 public void setLength(double length) {
26     this.length = length;
27 }
28 public double getWidth() {
29     return width;
30 }
31 public void setWidth(double width) {
32     this.width = width;
33 }
34 }
```

Problems Javadoc Declaration Console

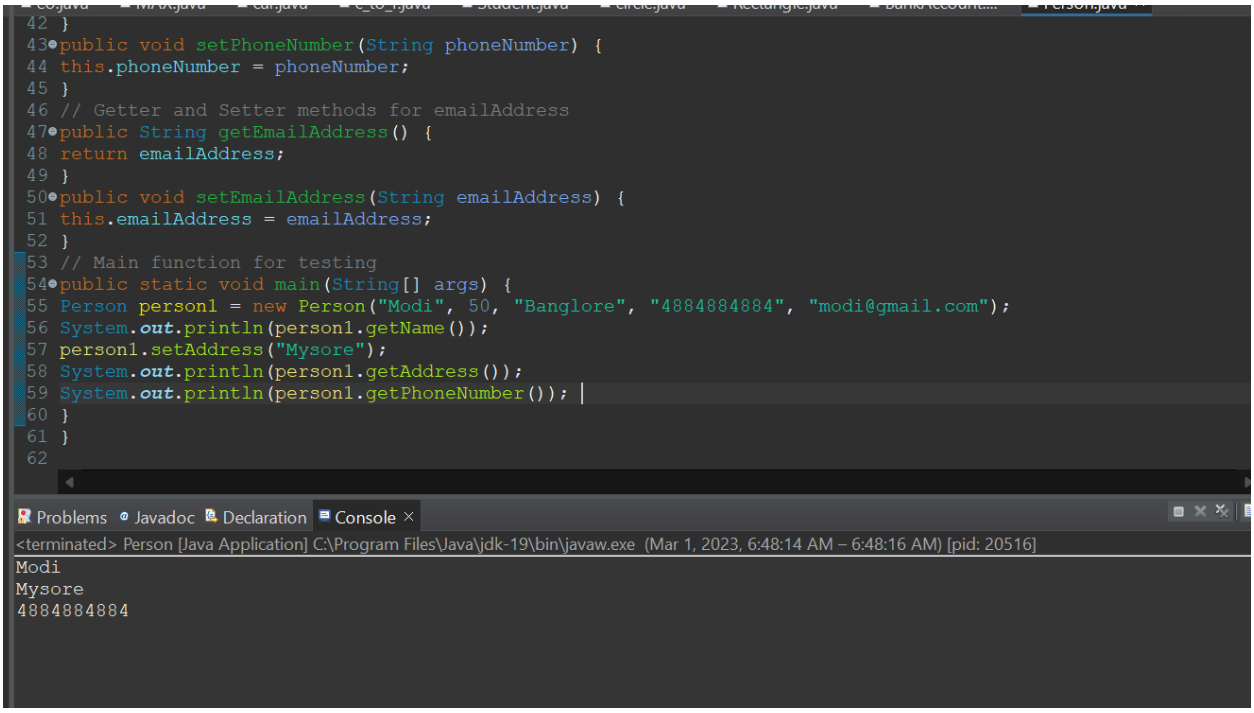
<terminated> Rectangle [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Mar 1, 2023, 6:36:24 AM – 6:36:26 AM) [pid: 14104]

35.0

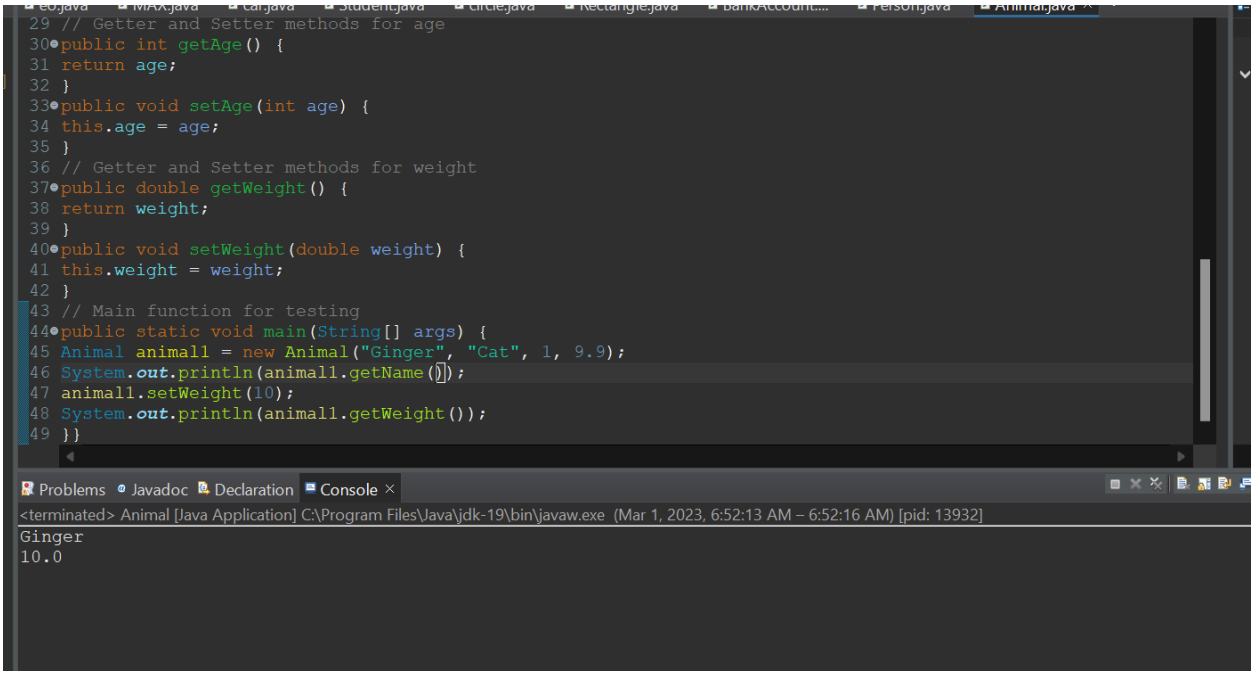
5) Create a class called "BankAccount" that has the following properties: account number, account balance, account holder name, and account type. Include a constructor and methods to deposit and withdrawmoney from the account.
Code: https://codeshare.io/YLE3vN



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/wnv8w9



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/8plk0v



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/LwEOQb

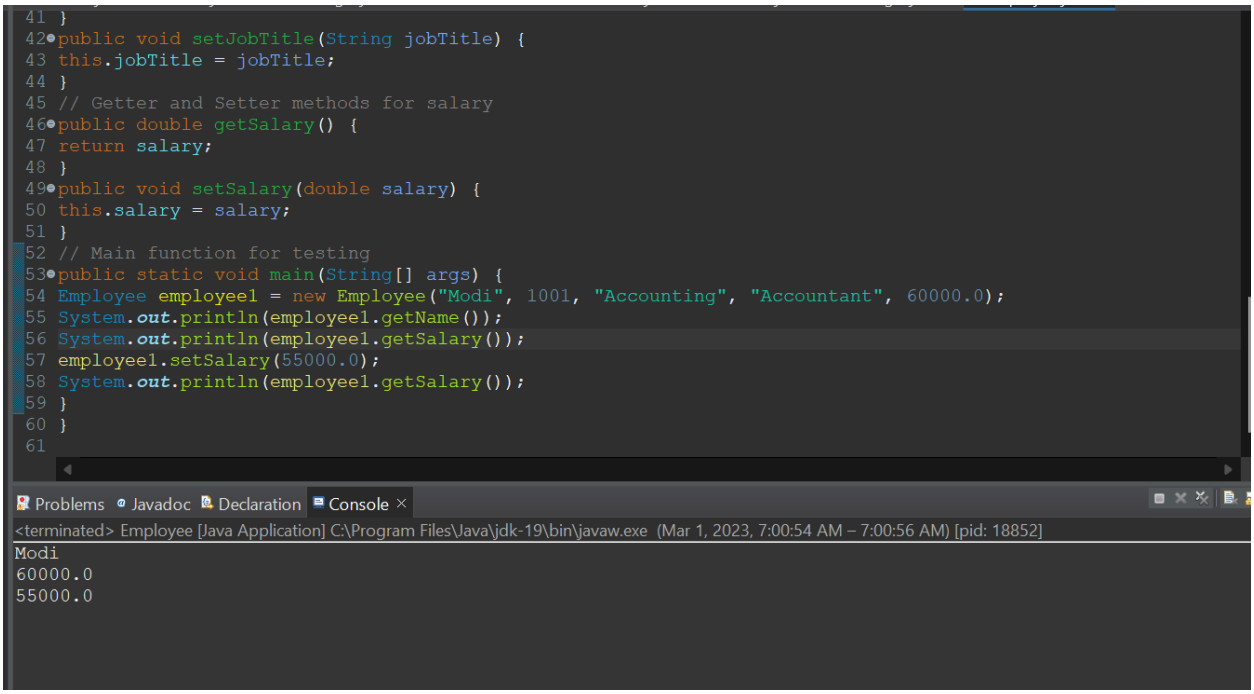
```
25 public void setHeight(double height) {
26 this.height = height;
27 this.area = calculateArea();
28 }
29 // Getter method for area
30 public double getArea() {
31 return area;
32 }
33 // Method to calculate the area of the triangle
34 public double calculateArea() {
35 return 0.5 * base * height;
36 }
37 // Main function for testing
38 public static void main(String[] args) {
39 Triangle triangle1 = new Triangle(6.0, 9.0);
40 System.out.println(triangle1.getArea());
41 triangle1.setHeight(7.0);
42 System.out.println(triangle1.getArea());
43 }
44 }
45
```

Problems Javadoc Declaration Console

<terminated> Triangle [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (Mar 1, 2023, 6:57:02 AM – 6:57:04 AM) [pid: 12516]

```
27.0
21.0
```

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.
Code: https://codeshare.io/MNEz6Q



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/9OLxeX