Class CircleArea:
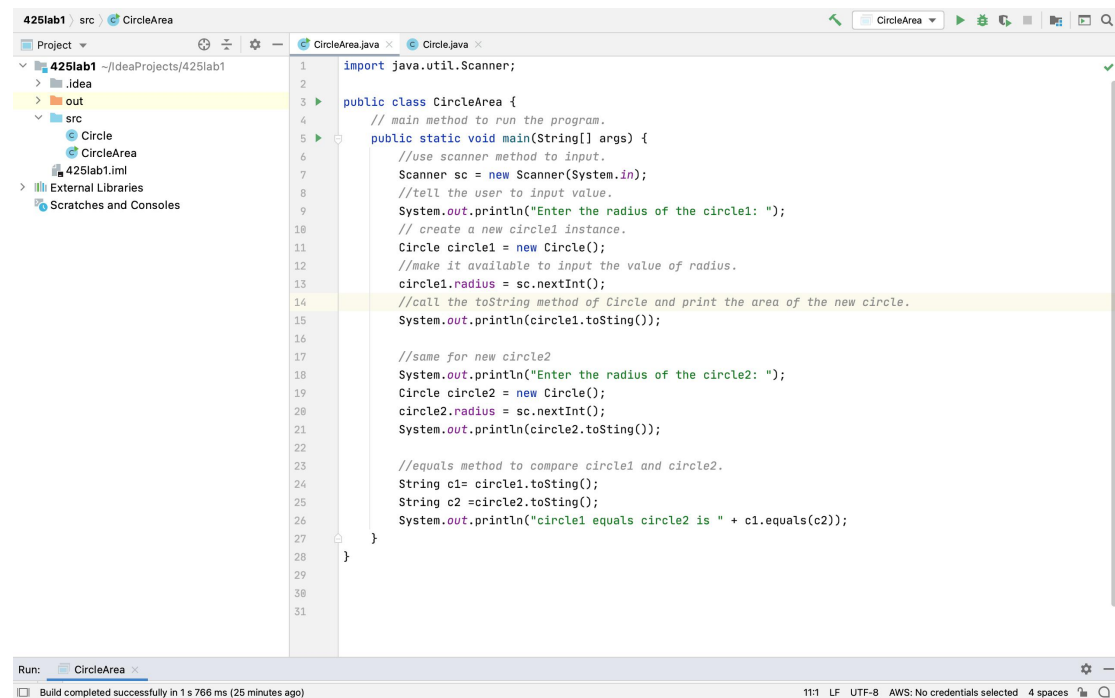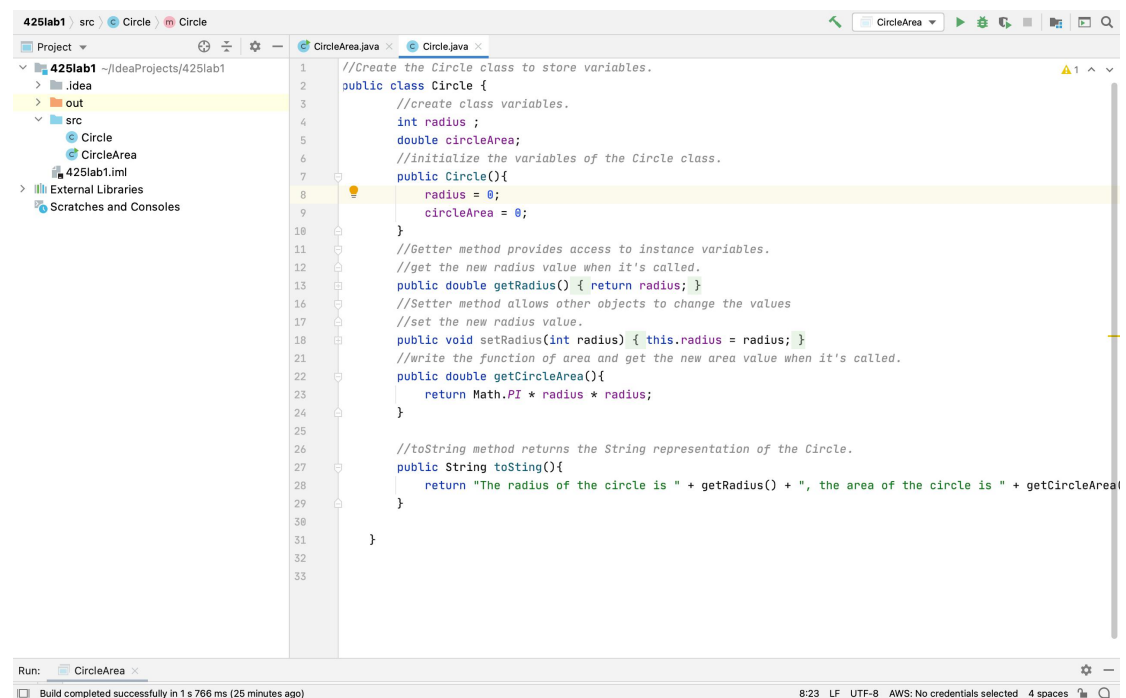
```java
import java.util.Scanner;

public class CircleArea {
    // main method to run the program.
    public static void main(String[] args) {
        //use scanner method to input.
        Scanner sc = new Scanner(System.in);
        //tell the user to input value.
        System.out.println("Enter the radius of the circle1: ");
        // create a new circle1 instance.
        Circle circle1 = new Circle();
        //make it available to input the value of radius.
        circle1.radius = sc.nextInt();
        //call the toString method of Circle and print the area of the new circle.
        System.out.println(circle1.toSting());

        //same for new circle2
        System.out.println("Enter the radius of the circle2: ");
        Circle circle2 = new Circle();
        circle2.radius = sc.nextInt();
        System.out.println(circle2.toSting());

        //equals method to compare circle1 and circle2.
        String c1= circle1.toSting();
        String c2 =circle2.toSting();
        System.out.println("circle1 equals circle2 is " + c1.equals(c2));
    }
}
```

Run: CircleArea
Build completed successfully in 1 s 766 ms (25 minutes ago)   11:1 LF UTF-8 AWS: No credentials selected 4 spaces

Class Circle:

```java
//Create the Circle class to store variables.
public class Circle {
    //create class variables.
    int radius ;
    double circleArea;
    //initialize the variables of the Circle class.
    public Circle(){
        radius = 0;
        circleArea = 0;
    }
    //Getter method provides access to instance variables.
    //get the new radius value when it's called.
    public double getRadius() { return radius; }
    //Setter method allows other objects to change the values
    //set the new radius value.
    public void setRadius(int radius) { this.radius = radius; }
    //write the function of area and get the new area value when it's called.
    public double getCircleArea(){
        return Math.PI * radius * radius;
    }

    //toString method returns the String representation of the Circle.
    public String toSting(){
        return "The radius of the circle is " + getRadius() + ", the area of the circle is " + getCircleArea(
    }

}
```

Run: CircleArea
Build completed successfully in 1 s 766 ms (25 minutes ago)   8:23 LF UTF-8 AWS: No credentials selected 4 spaces

Output1:


```
425lab1 > src > Circle > Circle                                                          CircleArea ▼  ▶ ✷ ⏩ ■  ▦ ▣ Q

Project ▼  ⊕ ÷ ✷ —  │ CircleArea.java ×  │ Circle.java ×                                    ⚠ 1 ∧ ∨ ⌄
▾ 425lab1 ~/IdeaProjects/425lab1      1  //Create the Circle class to store variables.
  ▸ .idea                             2  public class Circle {
  ▸ out                               3      //create class variables.
  ▾ src                               4      int radius ;
      Circle                          5      double circleArea;
      CircleArea                      6      //initialize the variables of the Circle class.
    425lab1.iml                       7      public Circle(){
  ▸ External Libraries                8          radius = 0;
  Scratches and Consoles

Run:  CircleArea ×                                                                          ✷ —
  ▶  ↑   /Library/Java/JavaVirtualMachines/jdk1.8.0_261.jdk/Contents/Home/bin/java ...
  ■  ↓   Enter the radius of the circle1:
         3
  ▣  ▤   The radius of the circle is 3.0, the area of the circle is 28.274333882308138
  ⟳  ▧   Enter the radius of the circle2:
  ⤢  🖶   2
         The radius of the circle is 2.0, the area of the circle is 12.566370614359172
  ▦      circle1 equals circle2 is false
  📌
         Process finished with exit code 0

                                                          ⚙ Key Promoter X
                                                          Command Run pressed 600 time(s)
                                                          '^R'  (Don't show again)

  All files are up-to-date (moments ago)                          11:1  LF  UTF-8  AWS: No credentials selected  4 spaces
```

Output2:


```
425lab1 > src > Circle > Circle                                                          CircleArea ▼  ▶ ✷ ⏩ ■  ▦ ▣ Q

Project ▼  ⊕ ÷ ✷ —  │ CircleArea.java ×  │ Circle.java ×                                    ⚠ 1 ∧ ∨ ⌄
▾ 425lab1 ~/IdeaProjects/425lab1      1  //Create the Circle class to store variables.
  ▸ .idea                             2  public class Circle {
  ▸ out                               3      //create class variables.
  ▾ src                               4      int radius ;
      Circle                          5      double circleArea;
      CircleArea                      6      //initialize the variables of the Circle class.
    425lab1.iml                       7      public Circle(){
  ▸ External Libraries                8          radius = 0;
  Scratches and Consoles

Run:  CircleArea ×                                                                          ✷ —
  ▶  ↑   /Library/Java/JavaVirtualMachines/jdk1.8.0_261.jdk/Contents/Home/bin/java ...
  ■  ↓   Enter the radius of the circle1:
         2
  ▣  ▤   The radius of the circle is 2.0, the area of the circle is 12.566370614359172
  ⟳  ▧   Enter the radius of the circle2:
  ⤢  🖶   2
         The radius of the circle is 2.0, the area of the circle is 12.566370614359172
  ▦      circle1 equals circle2 is true
  📌
         Process finished with exit code 0

                                                          ⚙ Key Promoter X
                                                          Command Run pressed 601 time(s)
                                                          '^R'  (Don't show again)

  All files are up-to-date (moments ago)                          11:1  LF  UTF-8  AWS: No credentials selected  4 spaces
```