

Code:

```
public class Employee {
    public
        int EmployeeID;
        String EmployeeName;
        String EmployeeDepartment;
        static String companyName; // used static keyword

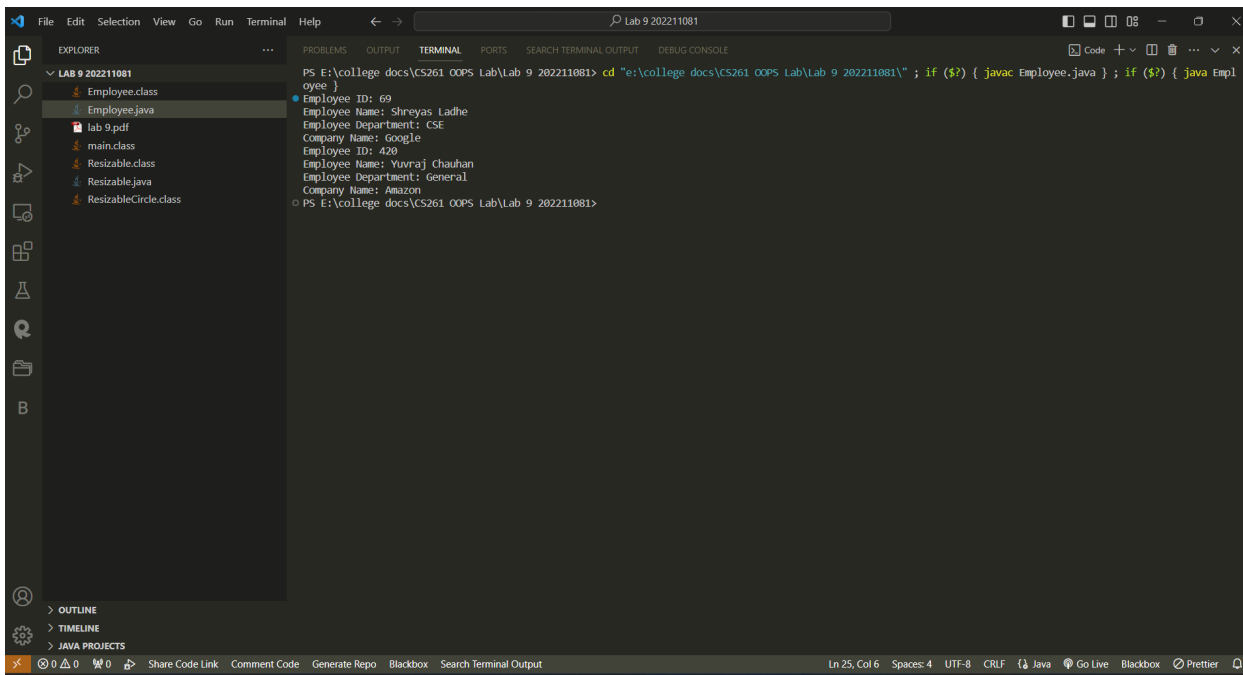
    public Employee(int EmployeeID, String EmployeeName, String
EmployeeDepartment, String companyName) {
        this.EmployeeID = EmployeeID;
        this.EmployeeName = EmployeeName;
        this.EmployeeDepartment = EmployeeDepartment;
        Employee.companyName = companyName;
    }

    // constructor with 2 attributes
    public Employee(int EmployeeID, String EmployeeName) {
        this(EmployeeID, EmployeeName, "General", "Amazon");
    }

    public void displayDetails() {
        System.out.println("Employee ID: " + EmployeeID);
        System.out.println("Employee Name: " + EmployeeName);
        System.out.println("Employee Department: " + EmployeeDepartment);
        System.out.println("Company Name: " + companyName);
    }

    public static void main(String[] args) {
        Employee EmpUno = new Employee(69, "Shreyas Ladhe", "CSE", "Google");
        EmpUno.displayDetails();
        Employee EmpDuo = new Employee(420, "Yuvraj Chauhan");
        EmpDuo.displayDetails();
    }
}
```

Output:



```
PS E:\college docs\CS261 OOPS Lab\Lab 9 202211081> cd "e:\college docs\CS261 OOPS Lab\Lab 9 202211081\" ; if ($?) { javac Employee.java } ; if ($?) { java Emp
oyee }
Employee ID: 69
Employee Name: Shreyas Ladhe
Employee Department: CSE
Company Name: Google
Employee ID: 420
Employee Name: Yuvraj Chauhan
Employee Department: General
Company Name: Amazon
PS E:\college docs\CS261 OOPS Lab\Lab 9 202211081>
```

Code:

```
interface Resizable {
    void increaseSize(int increaseBy);
    void decreaseSize(int decreaseBy);
}

class ResizableCircle implements Resizable {
    private double radius;

    public ResizableCircle(double radius) {
        this.radius = radius;
    }

    @Override // overriding used
    public void increaseSize(int increaseBy) {
        if (increaseBy > 0) {
            this.radius += increaseBy;
            System.out.println("Increased circle radius by " + increaseBy);
        } else {
```

```
        System.out.println("Invalid Input");
    }
}

@Override
public void decreaseSize(int decreaseBy) {
    if (decreaseBy > 0) {
        if (this.radius - decreaseBy >= 0) {
            this.radius -= decreaseBy;
            System.out.println("Decreased circle radius by " + decreaseBy);
        } else {
            System.out.println("Invalid Input");
        }
    }
}

public double getRadius() {
    return radius;
}

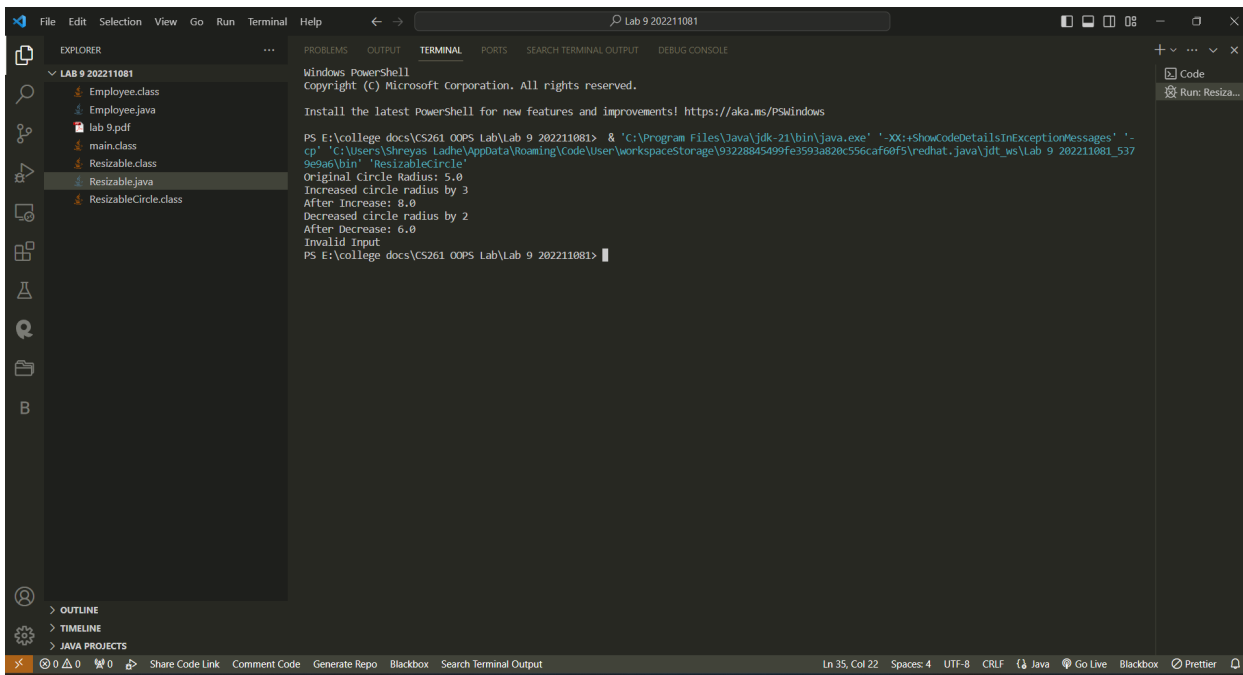
public static void main(String[] args) {
    ResizableCircle circle = new ResizableCircle(5.0);
    System.out.println("Original Circle Radius: " + circle.getRadius());

    circle.increaseSize(3);
    System.out.println("After Increase: " + circle.getRadius());

    circle.decreaseSize(2);
    System.out.println("After Decrease: " + circle.getRadius());

    circle.decreaseSize(10);
}
}
```

Output:



The screenshot shows an IDE interface with a dark theme. The Explorer panel on the left displays a project named 'LAB 9 202211081' containing files: Employee.class, Employee.java, lab 9.pdf, main.class, Resizable.class, Resizable.java, and ResizableCircle.class. The Terminal panel on the right shows a Windows PowerShell session. The command executed is: `PS E:\college docs\CS261 OOPS Lab\Lab 9 202211081> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Shreyas Ladhe\AppData\Roaming\Code\User\workspaceStorage\93228845499fe3593a820c556caf60f5\redhat.java\jdt_ws\Lab 9 202211081_537\9e9a6\bin' 'ResizableCircle'`. The output shows the original circle radius of 5.0, an increase to 8.0, and a decrease to 6.0, followed by an 'Invalid Input' error. The status bar at the bottom indicates the cursor is at line 35, column 22, in a UTF-8 file with CRLF line endings.

```
File Edit Selection View Go Run Terminal Help
LAB 9 202211081
Employee.class
Employee.java
lab 9.pdf
main.class
Resizable.class
Resizable.java
ResizableCircle.class
OUTLINE
TIMELINE
JAVA PROJECTS
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS E:\college docs\CS261 OOPS Lab\Lab 9 202211081> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Shreyas Ladhe\AppData\Roaming\Code\User\workspaceStorage\93228845499fe3593a820c556caf60f5\redhat.java\jdt_ws\Lab 9 202211081_537\9e9a6\bin' 'ResizableCircle'
Original Circle Radius: 5.0
Increased circle radius by 3
After Increase: 8.0
Decreased circle radius by 2
After Decrease: 6.0
Invalid Input
PS E:\college docs\CS261 OOPS Lab\Lab 9 202211081>
```