**Program 11 : Resizable interface**

**Develop a JAVA program to create an interface Resizable with methods resizeWidth(int width) and resizeHeight(int height) that allow an object to be resized. Create a class Rectangle that implements the Resizable interface and implements the resize methods.**

**Java Code**

// Resizable interface

interface Resizable {

void resizeWidth(int width);

void resizeHeight(int height);

}

// Rectangle class implementing Resizable interface

class Rectangle implements Resizable {

private int width;

private int height;

public Rectangle(int width, int height) {

this.width = width;

this.height = height;

}

// Implementation of Resizable interface

@Override

public void resizeWidth(int width) {

this.width = width;

System.out.println("Resized width to: " + width);

}

@Override

public void resizeHeight(int height) {

this.height = height;

System.out.println("Resized height to: " + height);

}

// Additional methods for Rectangle class

public int getWidth() {

return width;

}

public int getHeight() {

return height;

}

public void displayInfo() {

System.out.println("Rectangle: Width = " + width + ", Height = " + height);

}

}

// Main class to test the implementation

public class ResizeDemo {

public static void main(String[] args) {

// Creating a Rectangle object

Rectangle rectangle = new Rectangle(10, 5);

// Displaying the original information

System.out.println("Original Rectangle Info:");

rectangle.displayInfo();

// Resizing the rectangle

rectangle.resizeWidth(15);

rectangle.resizeHeight(8);

// Displaying the updated information

System.out.println("\nUpdated Rectangle Info:");

rectangle.displayInfo();

}

}

In this program, the Resizable interface declares the methods resizeWidth and resizeHeight. The Rectangle class implements this interface and provides the specific implementation for resizing the width and height. The main method in the ResizeDemo class creates a Rectangle object, displays its original information, resizes it, and then displays the updated information.

**Output**

Original Rectangle Info:

Rectangle: Width = 10, Height = 5

Resized width to: 15

Resized height to: 8