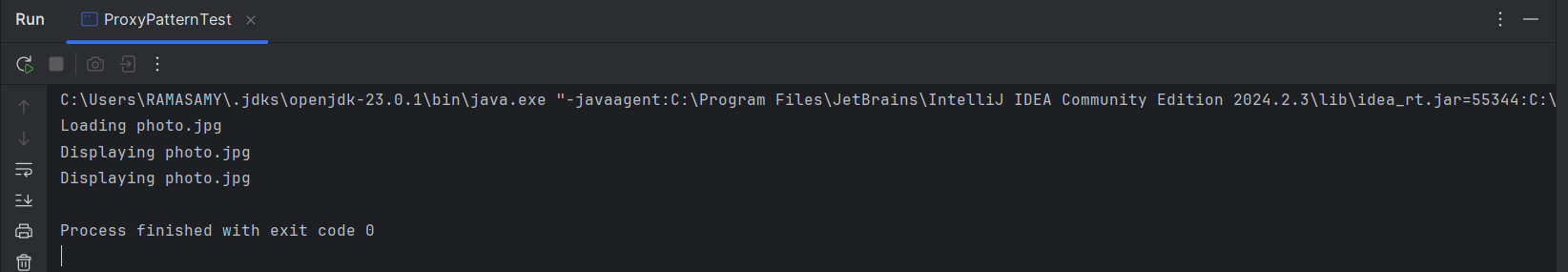
**Exercise 6: Implementing the Proxy Pattern**

**CODE:**

**ProxyPatternTest.java**

interface Image {  
 void display();  
}  
  
class RealImage implements Image {  
 private String filename;  
 public RealImage(String filename) {  
 this.filename = filename;  
 loadFromDisk();  
 }  
 private void loadFromDisk() {  
 System.*out*.println("Loading " + filename);  
 }  
 public void display() {  
 System.*out*.println("Displaying " + filename);  
 }  
}  
  
class ProxyImage implements Image {  
 private RealImage realImage;  
 private String filename;  
  
 public ProxyImage(String filename) {  
 this.filename = filename;  
 }  
  
 public void display() {  
 if (realImage == null) {  
 realImage = new RealImage(filename);  
 }  
 realImage.display();  
 }  
}  
  
class ProxyPatternTest {  
 public static void main(String[] args) {  
 Image image = new ProxyImage("photo.jpg");  
 image.display(); // loads and displays  
 image.display(); // only displays  
 }  
}

**OUTPUT:**