

A

PROJECT REPORT

ON

FLOWER

UNDER

NON SYLLABUS PROJECT



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
POORNIMA INSTITUTE OF ENGINEERING & TECHNOLOGY,
JAIPUR

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DECLARATION

I hereby declare that the report entitled “**FLOWER**” was carried out and written by me under the guidance of ”Mr. Atrakesh Pandey”, Professor, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, Poornima Institute of Engineering & Technology, Jaipur. This work has not been previously formed the basis for the award of any degree or diploma or certificate nor has been submitted elsewhere for the award of any degree or diploma.

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Abbreviations

- SQL: - Structured Query Language
- APL: - APPLET
- OOL: - Object Oriented Language
- DFD: - Data Flow Diagram
- UI : - User Interface
- RAM: - Random Access Memory
- JDK: - Java Development Kit
- JRE: - Java Runtime Environment

Chapter 1

Introduction to Project

1.1. Objective of Project

As an NSP project, Flower is created using Java. The button Enlarge and Small linked to Flower may be handled by this application or project.

This software shows resize of Flower by button Enlarge and Small using applet in java.

1.2. Constraints and Dependencies

This project's dependencies are as follows:

- A user with basic knowledge of system
- User should have knowledge about run command of applet.
- User should have basic knowledge of java

1.3. Project Life Cycle

The software development model used in making of this project is a spiral model which can be explained as: -

A Spiral model is an evolutionary software process paradigm that blends the iterative nature of prototyping with the controlled and systematic components of the linear sequential model. It has the ability to quickly create new software versions. The spiral process is used to create the software in a succession of incremental releases. During the early stages, the extra release may be a paper model or prototype. Later cycles yield progressively complete versions of the desired system.

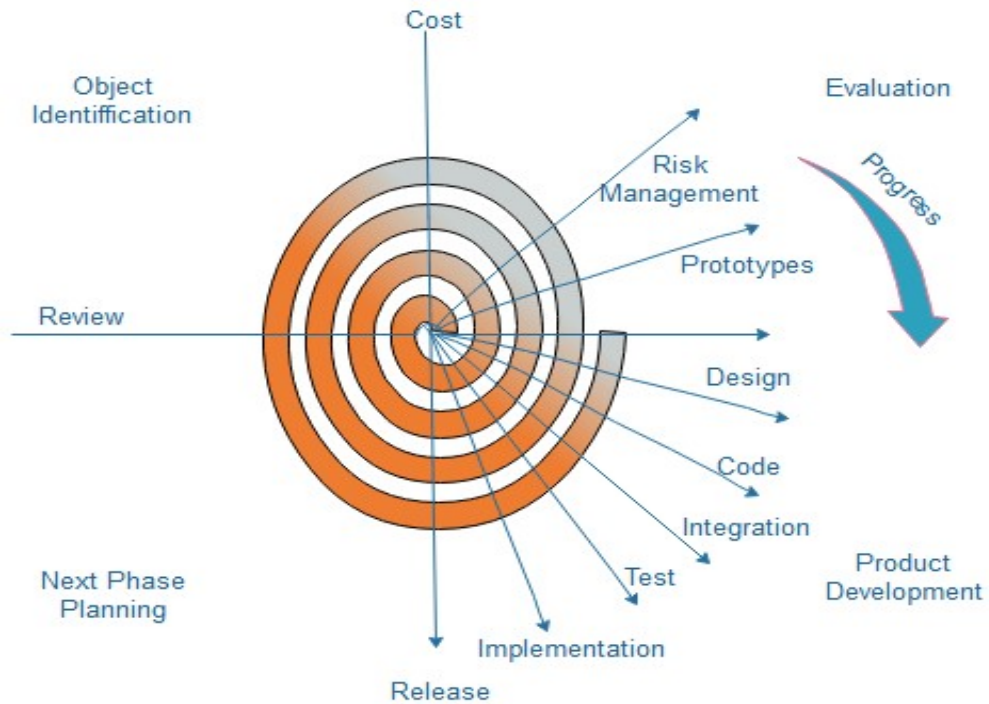


Fig 1.1: Spiral Model

1.3.1. Advantages

The following are the benefits of employing this model:

1. A significant amount of risk analysis
2. This is useful for large, mission-critical initiatives.

1.3.2. Disadvantages

The disadvantages of employing this model are as follows:

1. It might be an expensive model to utilize.
2. Risk analysis need extremely specialized knowledge.
3. It is ineffective for smaller tasks.

Chapter 2

Requirement Analysis

2.1. Functional requirement

The functional requirements of the project are: -

1. Whenever a user run program a Flower is draw in applet.
2. He/she can move the Flower by using button.
3. By button reset he/she draw original(re-position) Flower.

2.2. Non-Functional requirements

The non-functional requirements of the project are: -

1. The processing of each request should be done within 10 seconds.
2. Data fetching and manipulation should be fast.

2.3. Technology Used

The technology used in making of this project are: -

1. JAVA: -

Java is a high-level, class-based, object-oriented programming language with a low number of implementation dependencies. It is a general-purpose programming language designed to allow programmers to write once and run anywhere (WORA), which means that generated Java code may run on any platform that supports Java without the need for recompilation. Java programs are often compiled to bytecode that can run on any Java virtual machine (JVM), independent of computer architecture. Java was originally developed by James Gosling at Sun Microsystems. It was released in May 1995 as a core component of Sun Microsystems' Java platform. The original and reference implementation Java compilers, virtual machines, and class libraries were originally released by Sun under proprietary licenses.

2. JAVA Applet: -

Java applets were small applications written in the Java programming language, or another programming language that compiles to Java bytecode, and delivered to users in the form of Java bytecode. The user launched the Java applet from a web page, and the applet was then executed within a Java virtual machine (JVM) in a process separate from the web browser itself. A Java applet could appear in a frame of the web page, a new application window, Sun's AppletViewer, or a stand-alone tool for testing applets. Java applets run at very fast speeds and until 2011, they were many times faster than JavaScript. Unlike JavaScript, Java applets had access to 3D hardware acceleration, making them well-suited for non-trivial, computation-intensive visualizations. As browsers have gained support for hardware-accelerated graphics thanks to the canvas technology (or specifically WebGL in the case of 3D graphics), as well as just-in-time compiled JavaScript, the speed difference has become less noticeable.

The applets are used to provide interactive features to web applications that cannot be provided by HTML alone. They can capture mouse input and also have controls like buttons or check boxes. In response to user actions, an applet can change the provided graphic content. This makes applets well-suited for demonstration, visualization, and teaching. There are online applet collections for studying various subjects, from physics to heart physiology.

An applet can also be a text area only; providing, for instance, a cross-platform command-line interface to some remote system. If needed, an applet can leave the dedicated area and run as a separate window. However, applets have very little control over web page content outside the applet's dedicated area, so they are less useful for improving the site appearance in general, unlike other types of browser extensions (while applets like news tickers or WYSIWYG editors are also known). Applets can also play media in formats that are not natively supported by the browser.

Pages coded in HTML may embed parameters within them that are passed to the

applet. Because of this, the same applet may have a different appearance depending on the parameters that were passed.

As applets were available before HTML5, modern CSS and JavaScript interface DOM were standard, they were also widely used for trivial effects such as mouse over and navigation buttons. This approach, which posed major problems for accessibility and misused system resources, is no longer in use and was strongly discouraged even at the time.

3. JAVA Swing: -

Swing is a Java GUI widget toolkit. It's a component of Oracle's Java Foundation Classes (JFC), which provides an API for creating graphical user interfaces (GUIs) for Java programs.

Swing was created to give a more comprehensive collection of graphical user interface components than the previous Abstract Window Toolkit (AWT). Swing offers a pluggable look and feel that allows applications to have a look and feel that is unconnected to the underlying platform, as well as a look and feel that emulates the look and feel of numerous platforms. It includes more powerful and adaptable components than AWT. Swing features various complex components, such as tabbed panels, scroll panes, trees, tables, and lists, in addition to traditional components such as buttons, check boxes, and labels.

4. IntelliJ IDEA: -

IntelliJ IDEA is an integrated development environment (IDE) written in Java for developing computer software written in Java, Kotlin, Groovy, and other JVM-based languages. It is developed by JetBrains (formerly known as IntelliJ) and is available as an Apache 2 Licensed community edition and in a proprietary commercial edition. Both can be used for commercial development.



System Requirements: -

Table 2.1: - System requirements for IntelliJ IDEA

	Windows	macOS	Linux
OS Version	64 Bit Microsoft Windows 8 or later	macOS 10.13 or later	Any Linux distribution that supports Gnome, KDE, or Unity DE
RAM	2 GB RAM minimum, 8 GB RAM recommended		
Disk space	2.5 GB and another 1 GB for caches minimum, solid-state drive with at least 5 GB of free space recommended		
JDK Version	Add support for Java 16		
JRE Version	JRE 11 is bundled.		
Screen resolution	1024×768 minimum screen resolution. 1920×1080 is a recommended screen resolution.		

Chapter 3

Design

2.1. DFD (DATA FLOW DIAGRAM)

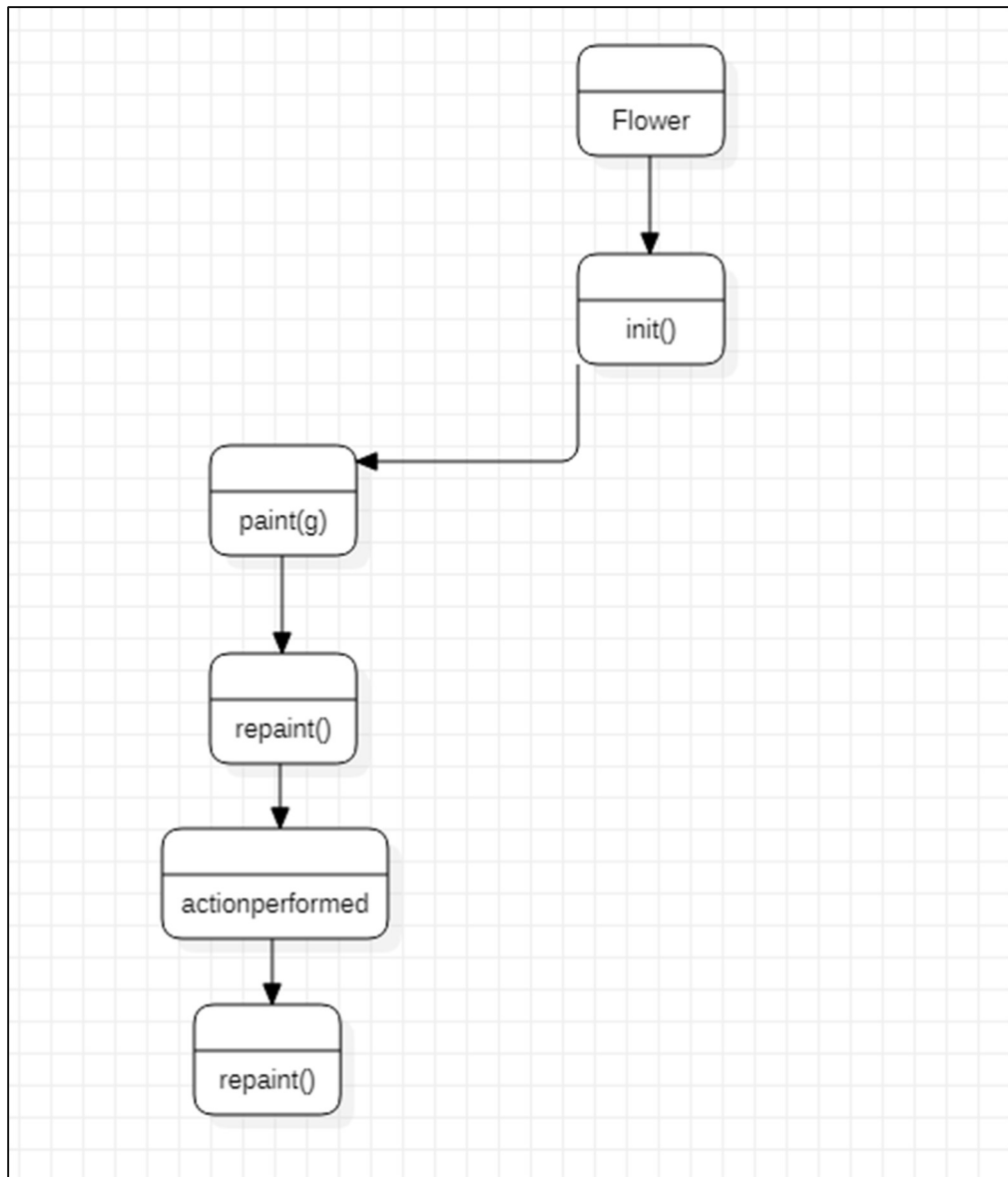


Fig 3.1. DFD

2.2. Use Case Diagram

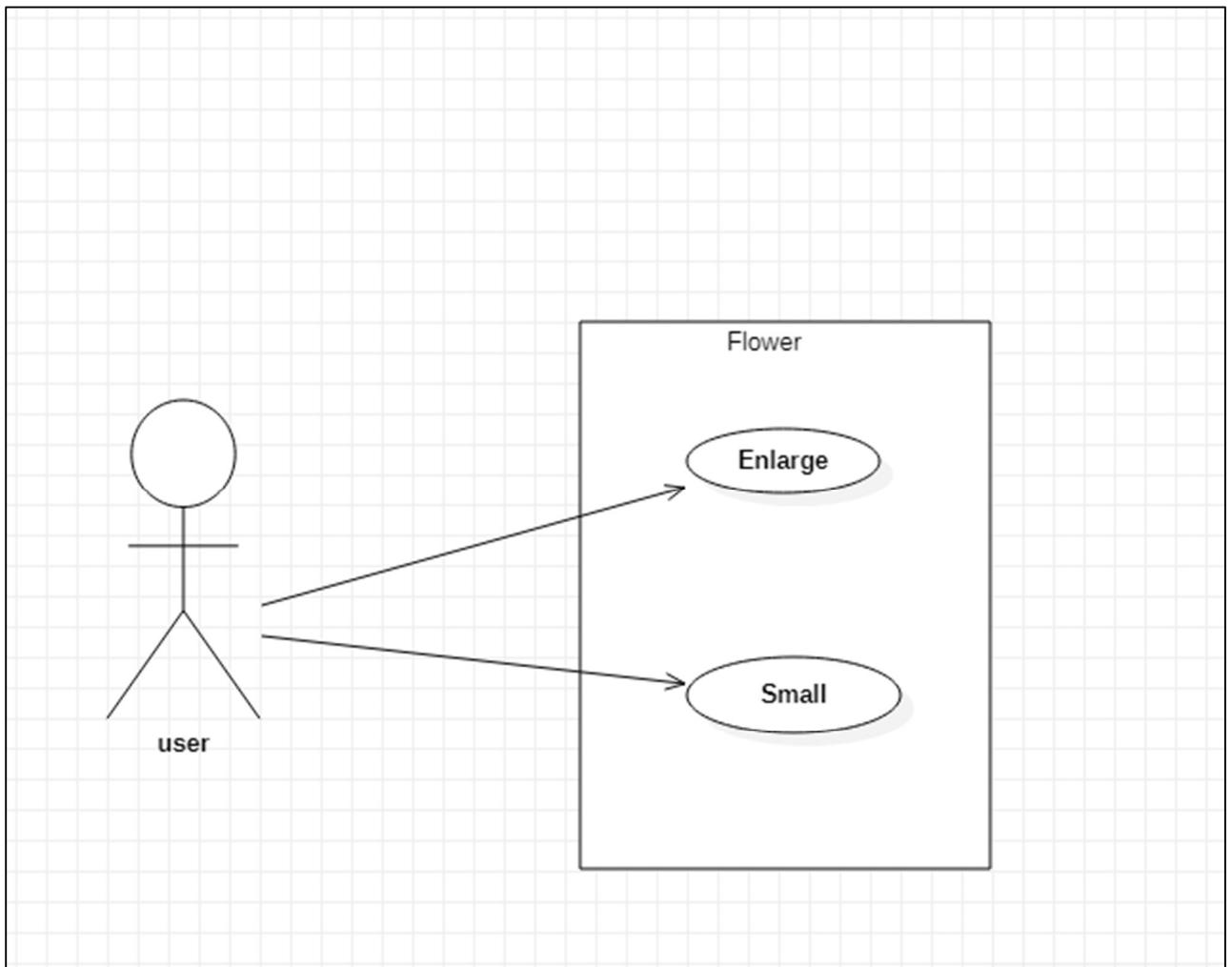


Fig 3.2. USE CASE DIAGRAM

2.3. Class Diagram

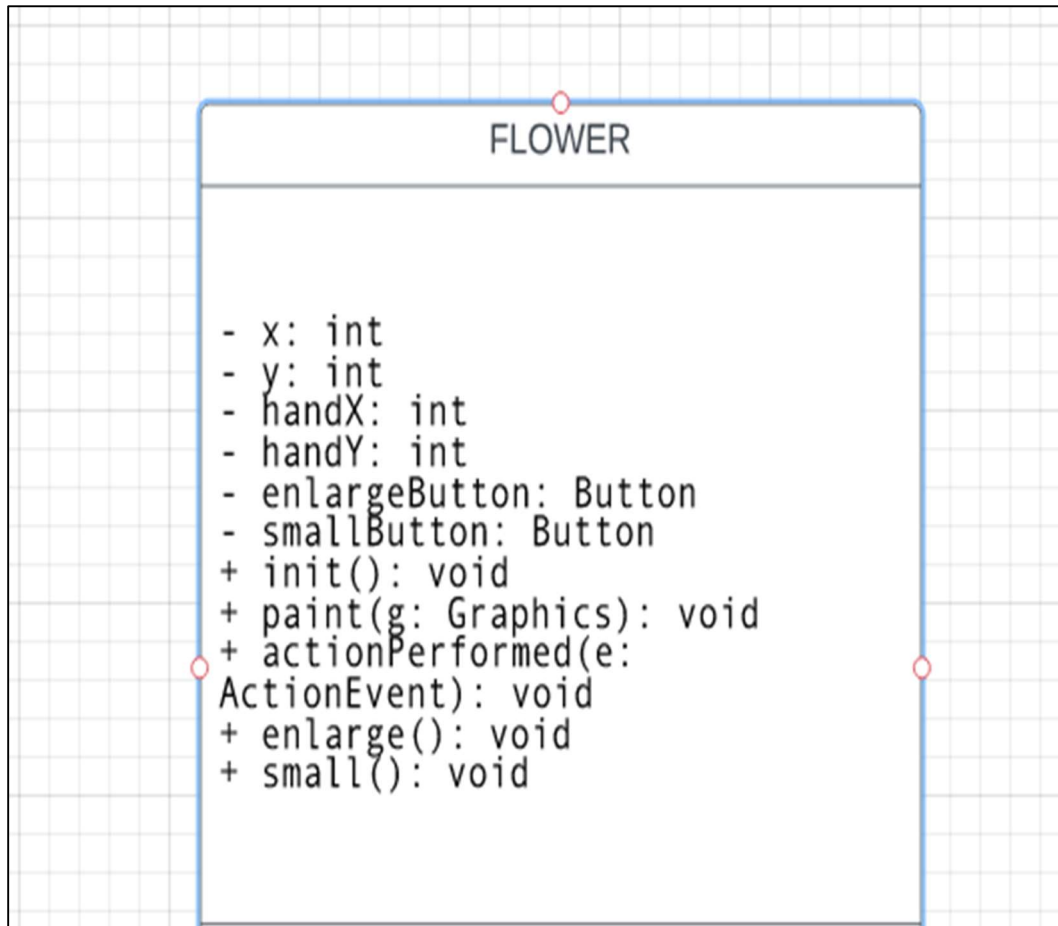


Fig 3.3. CLASS DIAGRAM

Chapter 4

Conclusion

To summarize this report on the project entitled **FLOWER**, it is capable of draw and handling position of Flower. Flower is design with the help of applet in java, both java code and applet code are in one file. There are 3 buttons in it which change the size of Flower acc. To which button pressed. The buttons are enlarge, small and reset. When enlarge button pressed the flower became zoom in and when small button pressed the flower be zoom out. To run the project, the person should know the command to run applet. As the UI is clean and easy making it good application for non IT background users to use it.

Chapter 5

References

- <https://www.wikipedia.org/>
- <https://www.google.co.in/>
- <https://www.javatpoint.com/>
- <https://www.geeksforgeeks.org/>
- <https://stackoverflow.com/>

Chapter 6

Snapshots of Project



Fig 5.1. Original position

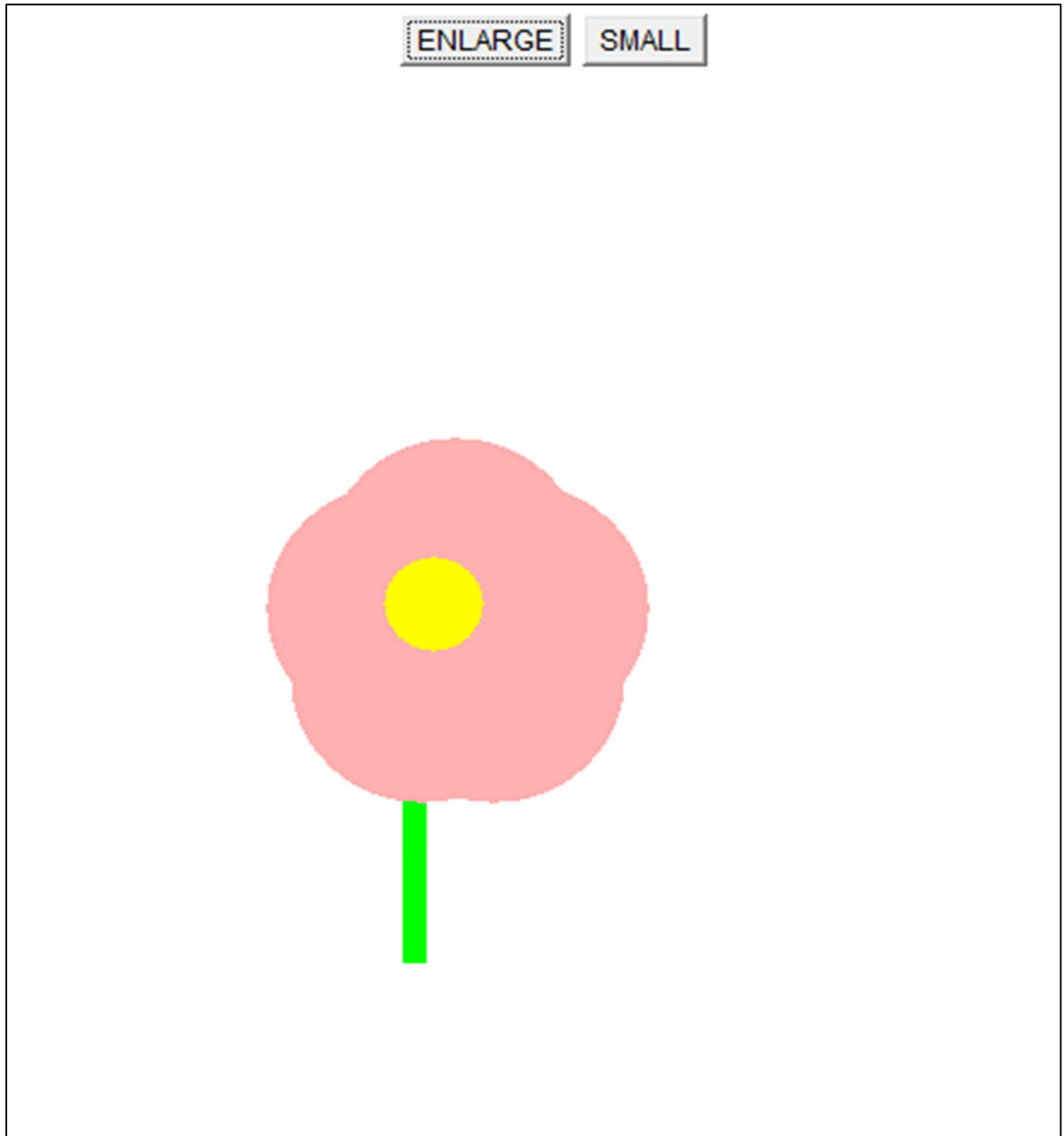


Fig 5.2. Enlarge

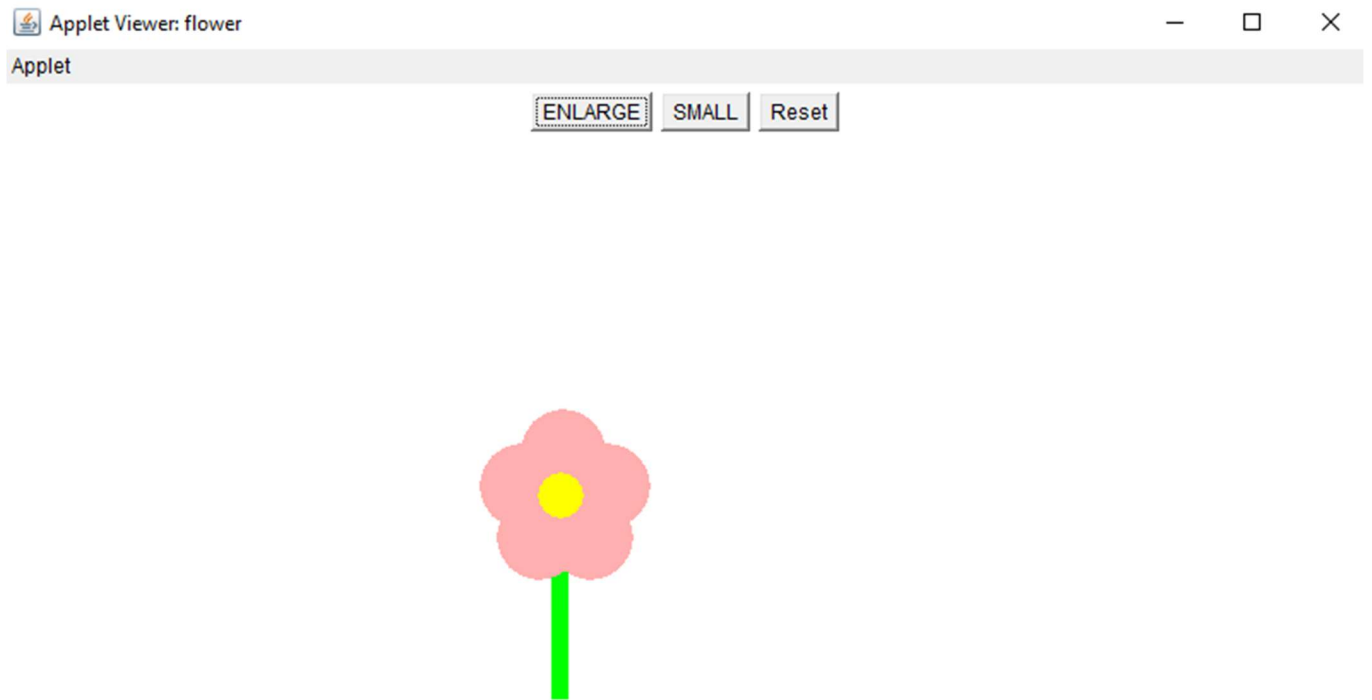


Fig 5.3. Small

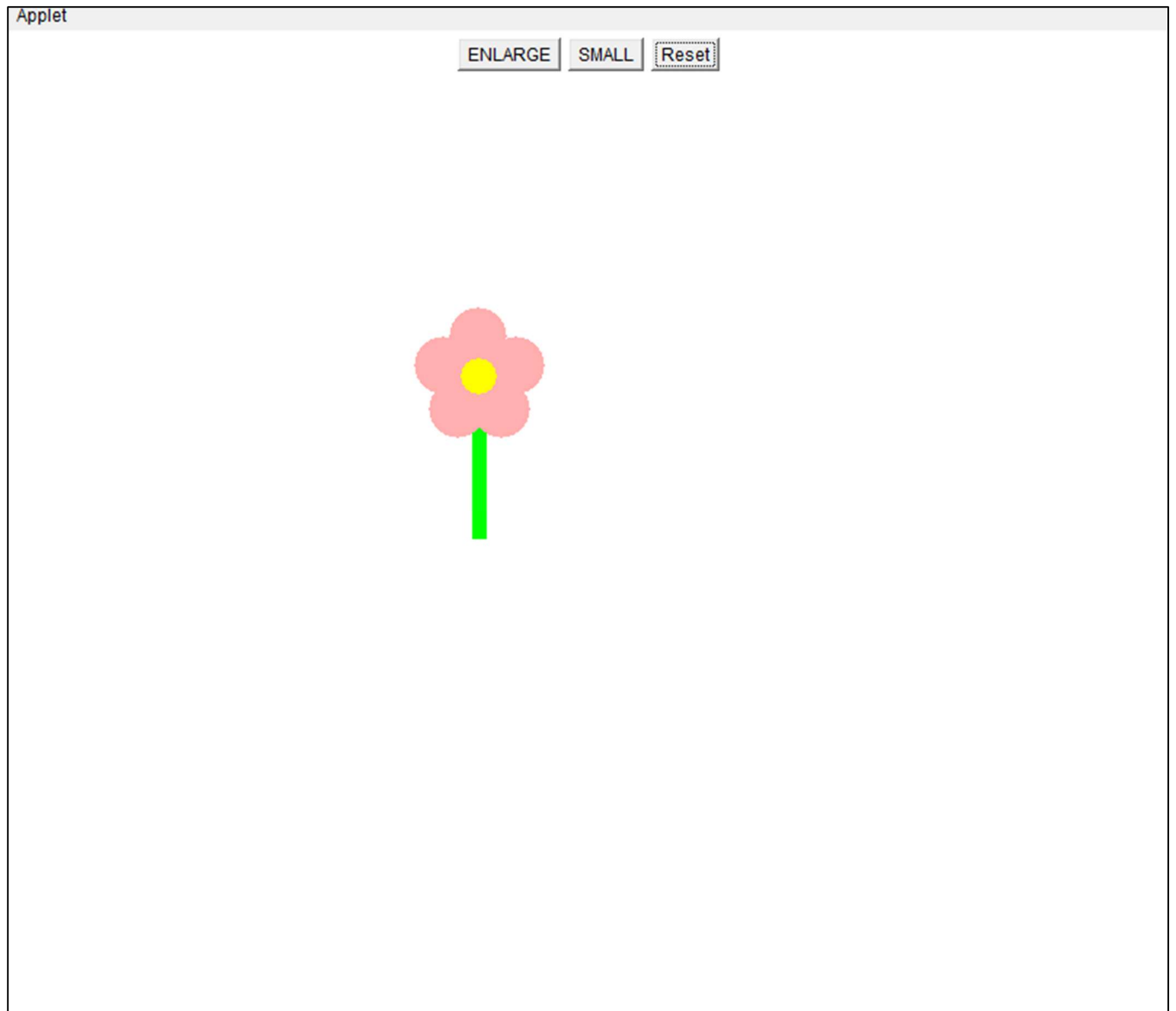
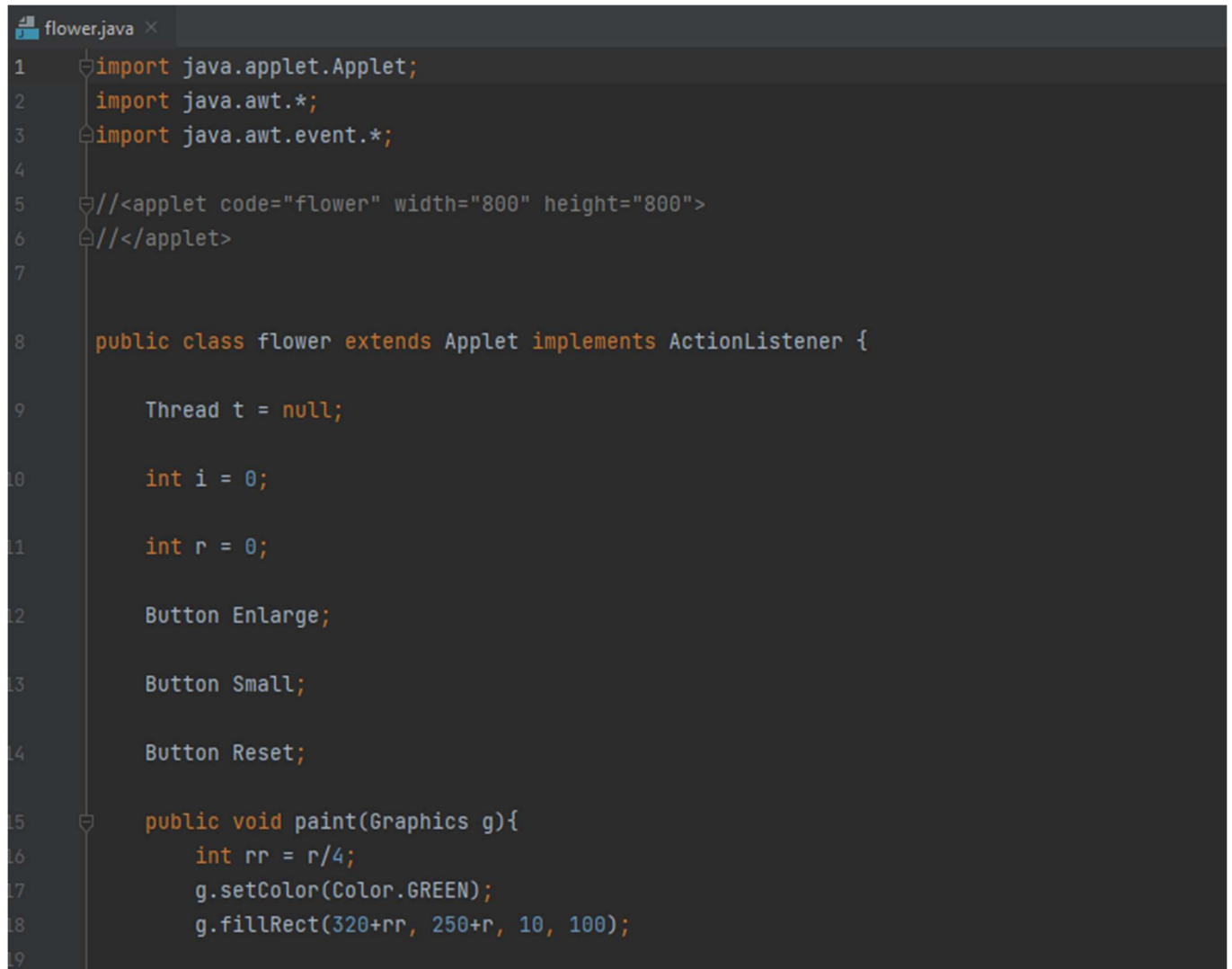


Fig 5.6. Reset

Chapter 7

Code of Project



```
1  import java.applet.Applet;
2  import java.awt.*;
3  import java.awt.event.*;
4
5  //<applet code="flower" width="800" height="800">
6  //</applet>
7
8  public class flower extends Applet implements ActionListener {
9
10     Thread t = null;
11
12     int i = 0;
13
14     int r = 0;
15
16     Button Enlarge;
17
18     Button Small;
19
20     Button Reset;
21
22     public void paint(Graphics g){
23         int rr = r/4;
24         g.setColor(Color.GREEN);
25         g.fillRect(320+rr, 250+r, 10, 100);
26     }
27 }
```

Fig 6.1. CODE SCREENSHOT

```
15 public void paint(Graphics g){
16     int rr = r/4;
17     g.setColor(Color.GREEN);
18     g.fillRect(320+rr, 250+r, 10, 100);
19
20     g.setColor(Color.PINK);
21     g.fillOval(304, 190, 40+r, 40+r);
22     g.fillOval(330, 210, 40+r, 40+r);
23     g.fillOval(320, 240, 40+r, 40+r);
24     g.fillOval(290, 240, 40+r, 40+r);
25     g.fillOval(280, 210, 40+r, 40+r);
26
27     g.setColor(Color.YELLOW);
28     g.fillOval(312+rr, 225+rr, 25+rr, 25+rr);
29 }
30
31 public void init(){
32     Enlarge = new Button("ENLARGE");
33     Small = new Button("SMALL");
34     Reset = new Button("Reset");
35     add(Enlarge);
36     add(Small);
37     add(Reset);
38
39     Enlarge.addActionListener(this);
```

Fig 6.2. CODE SCREENSHOT


```
37         add(Reset);
38
39         Enlarge.addActionListener(this);
40         Small.addActionListener(this);
41         Reset.addActionListener(this);
42
43
44     }
45
46     public void actionPerformed(ActionEvent e) {
47         if (e.getSource() == Enlarge) {
48             r+= 20;
49
50         } else if (e.getSource() == Small) {
51             r-= 10;
52
53         }else if(e.getSource() == Reset){
54             r=0;
55         }
56         repaint();
57     }}
```

Fig 6.3. CODE SCREENSHOT