



**Bangladesh Army University of Engineering and Technology (BAUET)**  
Qadirabad Cantonment, Natore-6431.

Department of Computer Science and Engineering

Integrated Design Project

# GRAY MATTER

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## Table of Contents

<b>S/L</b>	<b>Topic Name</b>	<b>Page</b>
	List of Figures	2
	List of Tables	3
1.	Project Overview	4
2.	The Purpose of the Project	5
3.	The Scope of the Work	6
4.	Product Scenarios	7
5.	People Involved	8
6.	Mandated Constraints	9
7.	Naming Conventions and Definitions	10
8.	Requirements	11
9.	System Design	12
10.	Current Software Architecture	13
11.	Proposed Software Architecture	14
12.	Detailed Features	15
13.	User Interface	16
14.	Testing Approaches	17
15.	Test Cases Design and Result Evaluation	18
16.	Risks	19
17.	Costs	20
18.	Timetable	21

## List of Figures

<b>S/L</b>	<b>Figure Name</b>	<b>Page</b>
1.	Figure Name 1	2
2.	Figure Name 2	3
3.	Figure Name 3	4
4.	Figure Name 4	5
5.	Figure Name 5	6

(Write down all the figures name in similar format)

## **List of Tables**

<b>S/L</b>	<b>Figure Name</b>	<b>Page</b>
1.	Table Name 1	2
2.	Table Name 2	3
3.	Table Name 3	4
4.	Table Name 4	5
5.	Table Name 5	6

(Write down all the tables name in similar format)

# **1.Project Overview**

Study can gain human knowledge but not brain. Only sports can gain brain capacity and efficient than all other process to brain development technique. But in this day video games are not most popular in teenager but also all ages are addicted on it. Because modernization bring reduce playground also humans are get lazy.

In this situation “ GRAY MATTER “ able to develop brain capability. Which based on some mathematical term that the symbolic level of the left hemisphere allows manipulation of the symbols and relationships to allow mathematical creativity. The right hemisphere finds inspiration and motivation. This APP based on this Concept to train up brain.

NCTB: There are no alternative against Sports .

## **2.The Purpose of the Project**

As I say, This project for gain brain capability and efficiency by playing this. There are more project like this . But as you know, its work on brain part by part which follow some mathematical term that really affect. This project could be an optimal solution for those, who are addicted on video game.

There are many project like GRAY MATTER but this project exceptional than other cause there is meter for test him self, is it really work or not.

But unfortunately ,This project able to develop brain capability but I can't add meter for time limitation and less knowledge on Java.

But I wish I could it more effective and a better solution for gain brain activity.

### **3.The Scope of the Work**

But in this day video games are not most popular in teenager but also all ages people are addicted on it.

People cant be realistic and they imagine like fantasy as shown video game. As a result people get depressed on simple matter.

Human eat more in depression that create extra fat on human body.

As a result blood pressure, heart disease, leakage on vain and so many disease facing after a time.

Also children are become aggressive and rude by playing more video game.

### **3.Product Scenarios**

Mainly this game based on mathematical term. So, user must have knowledge on mathematics.

This game has English and Bangla version. So Bengali and others can use this. which are able to read.

### **4.People Involved**

Describe the team members, their responsibilities and positions. Also, mention what are the roles and characteristics of Clients, Customers, Sponsors, Testers, System Analysts, System Designers, Marketing Experts etc.

This part should be at least 2 pages and at most 3 pages long.

### **5.Mandated Constraints**

1. Brain meter

2 . Step by step process to develop left hemisphere and right hemisphere

3. User can set contest and publish his own created equation (free and with pay)



## **6.Naming Conventions and Definitions**

This project work for brain.

The darker tissue of the brain and spinal cord, consisting mainly of nerve cell bodies and branching dendrites known as gray matter. Which perform as intelligence.

That's why this project naming "GRAY MATTER".

## **7.Requirements**

Discuss the following topics to describe the requirements of the project:

- a) Use Case Diagrams: Use Case Diagrams are the diagrams that will show which type of user will be able to use which features. Use Case Diagrams serve two purposes: as a form of graphical table of contents listing the individual use-cases, and also to define the boundary of what is included as part of the proposed system and what is not included.
- b) Functional Requirements: Functions which must work to obtain the desired outcomes.
- c) Data Requirements: Which data are required to get desired output?
- d) Performance Requirement: What should be the performance of the proposed system?
- e) Environmental Requirements: Environment Setup and Configuration needed for the project to run perfectly.
- f) Mention Other Requirements (if needed)

This part should be at least 3 pages.

## **8.System Design**

Describe the design goals, challenges, constraints, requirements of the design.

This part should be at least 1 page and at most 2 pages long.

## **9.Current Software Architecture**

Describe the Software Architecture of the existing or current system in Details.

This part should be at least 2 pages and at most 3 pages long.

## **10.Proposed Software Architecture**

Describe the Software Architecture of the Proposed System of yours.

This part should be at least 3 pages.

## **11.Detailed Features**

This project train brain by left hemisphere and right hemisphere so it has two part under play button.

Play : This is the brain training segment.

A) Left: Left part contain five segment.

a) Arithmetic :Contain 5 level.

- b) Greater or Less : Contain 10 level.
- c) Color :Contain 5 level.
- d) Polygone :Contain 5 level.
- e) Fraction :Contain 5 level.

B) Right : Right part contain five segment.

- a) Find :Contain 5 level.
- b) Match :Contain 2 level.
- c) Triangle :Contain 3 level.
- d) Roman :Contain 5 level.
- e) Sort :Contain 5 level.

Settings: Here user get some basic segment. Like,

- a) Language
- b) About
- c) Version
- d) Feedback
- e) Rate

## 12. User Interface

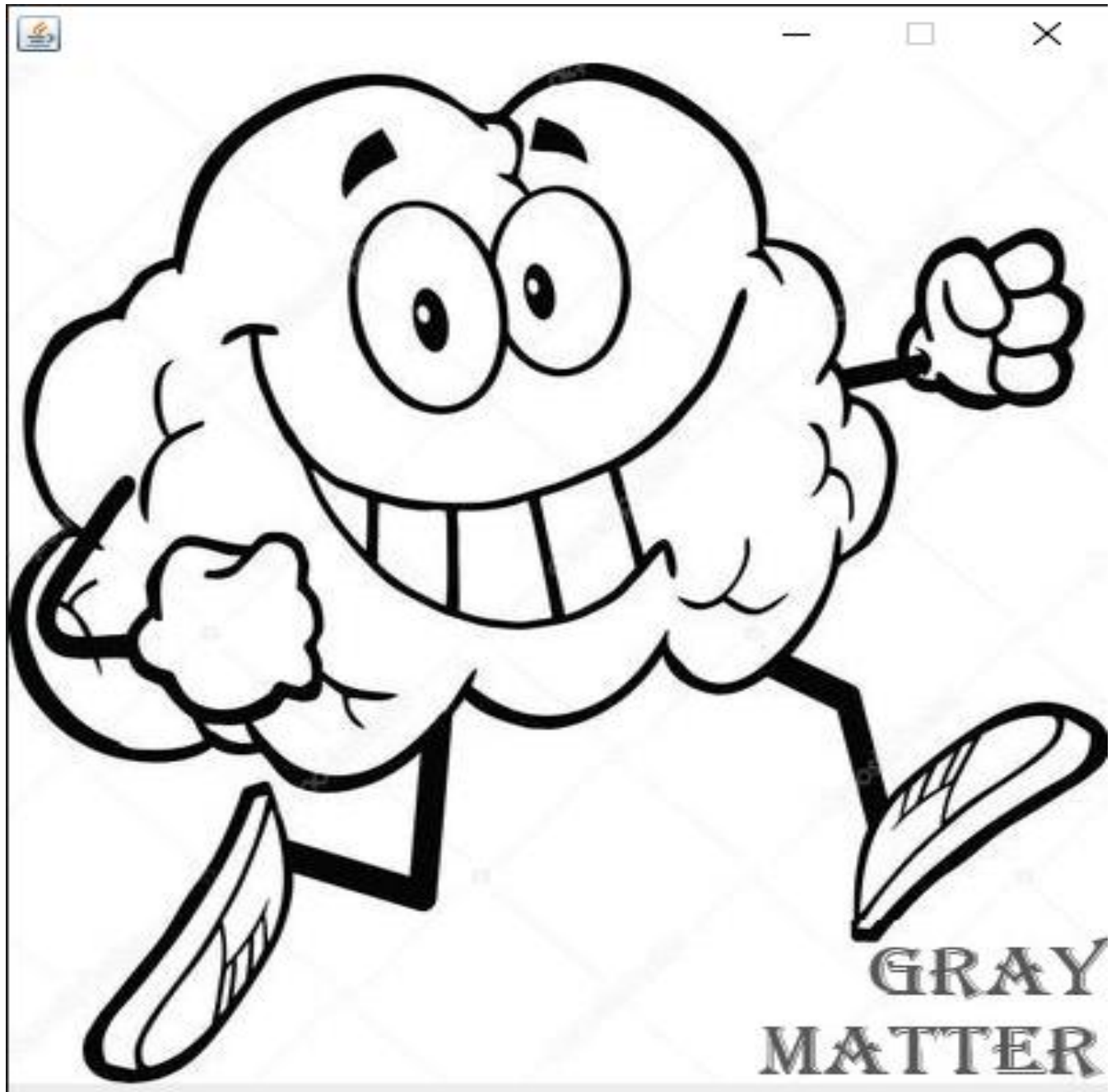


Fig 1: Starting of GRAY MATTER

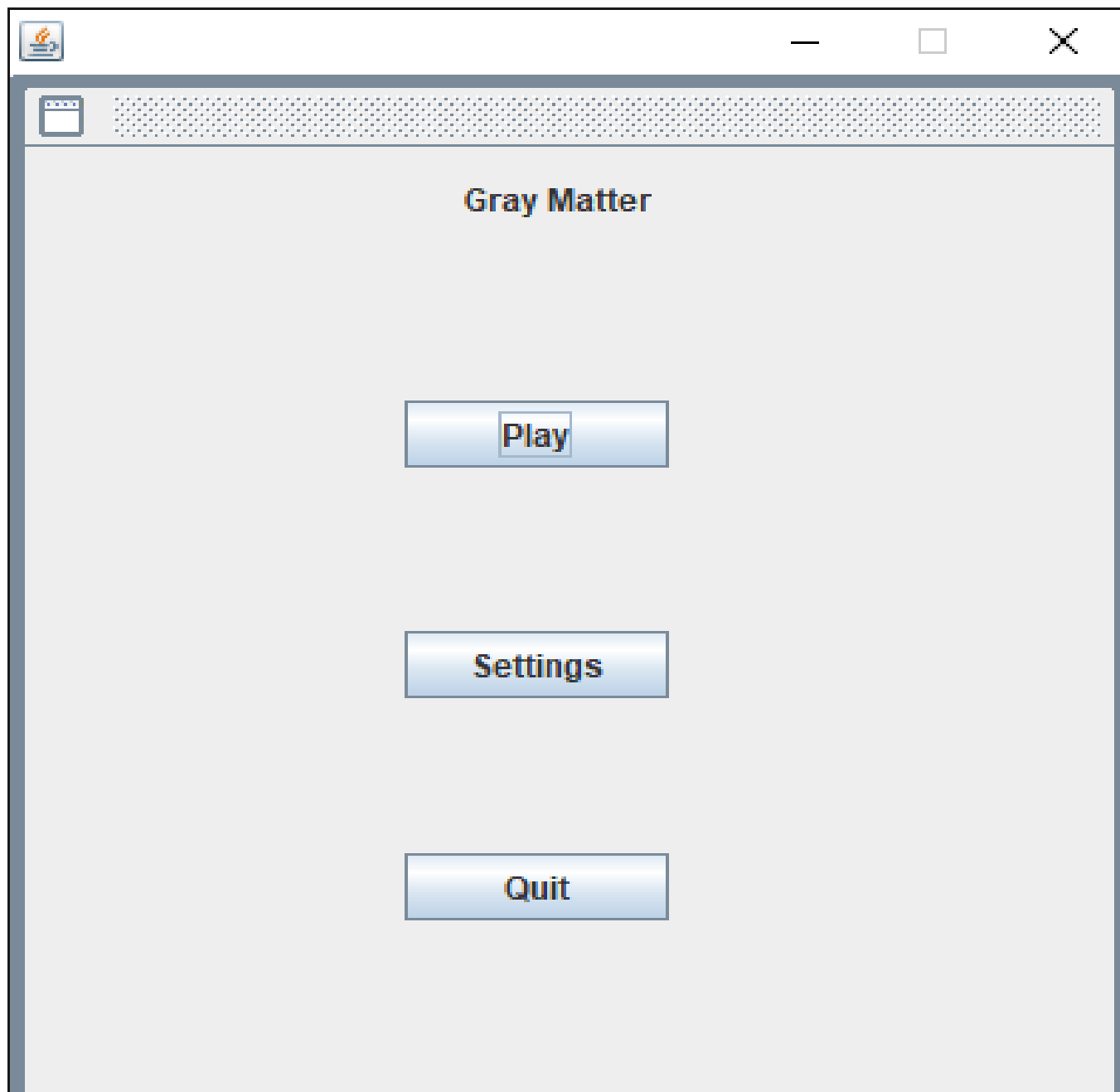


Fig 2: Dashboard of GRAY MATTER

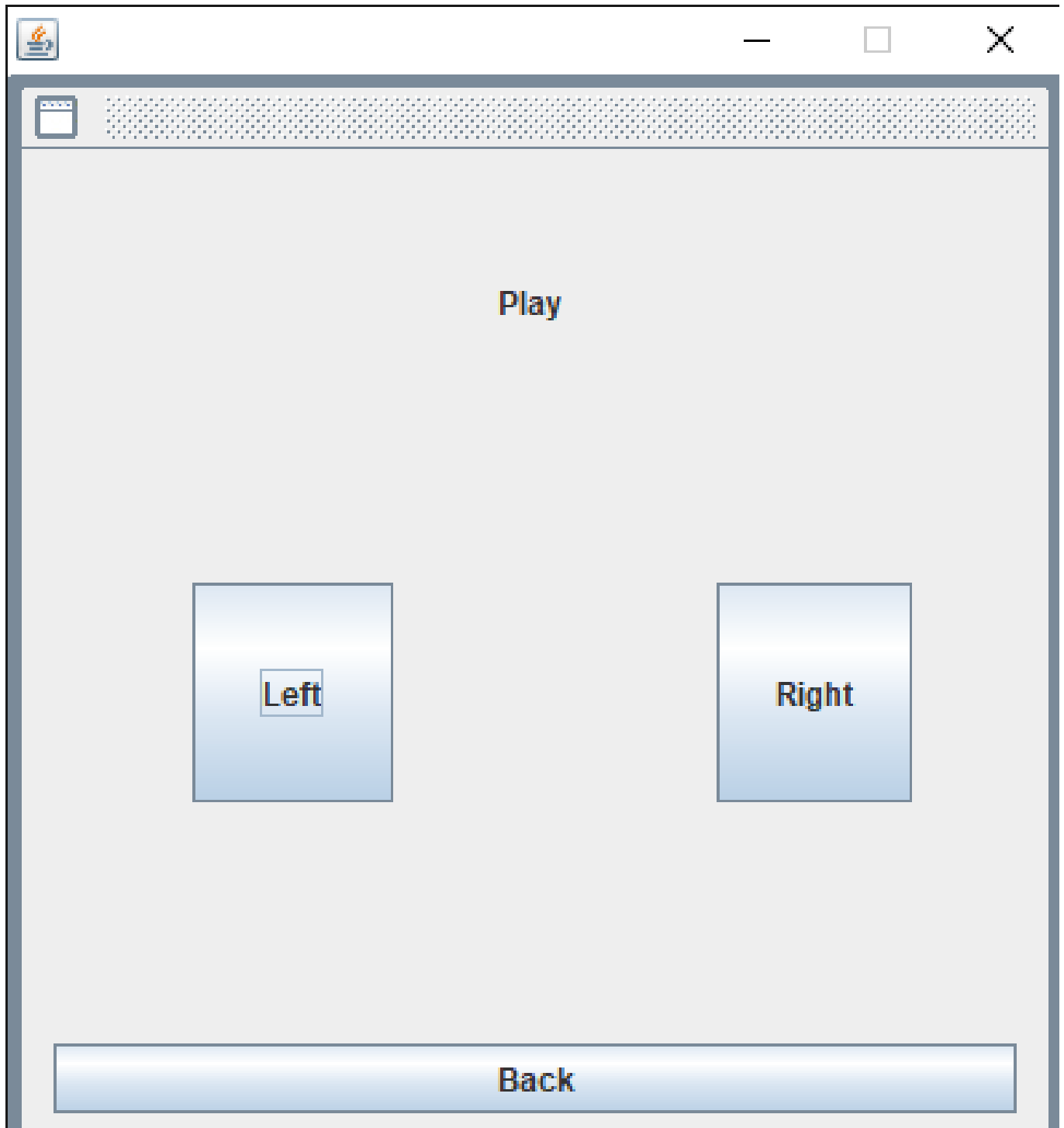


Fig 3: Play contain “Left” for left hemisphere and “Right” for right hemisphere. “Back” for return to Dashboard.

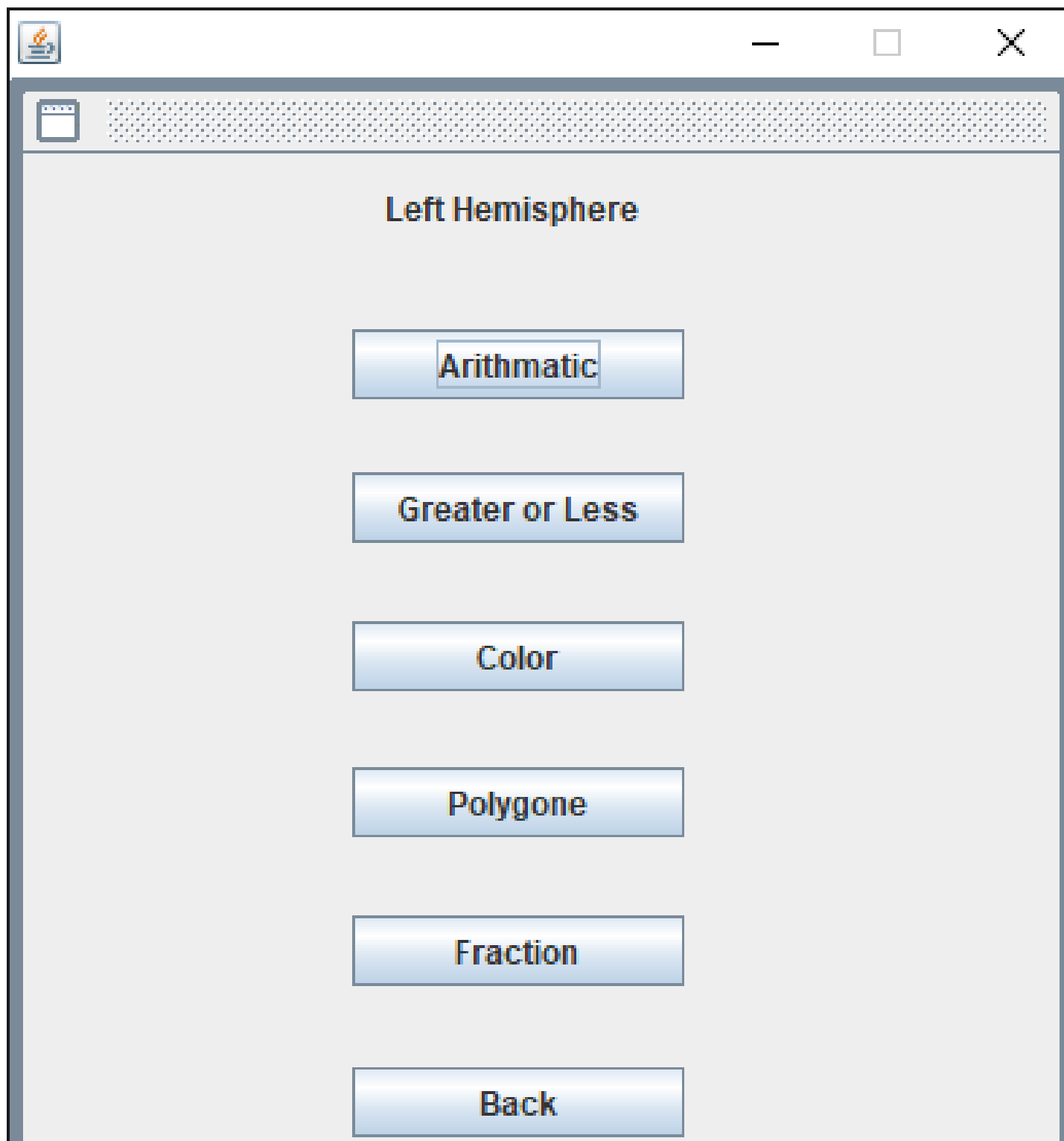


Fig 4: Segment for Left hemisphere.

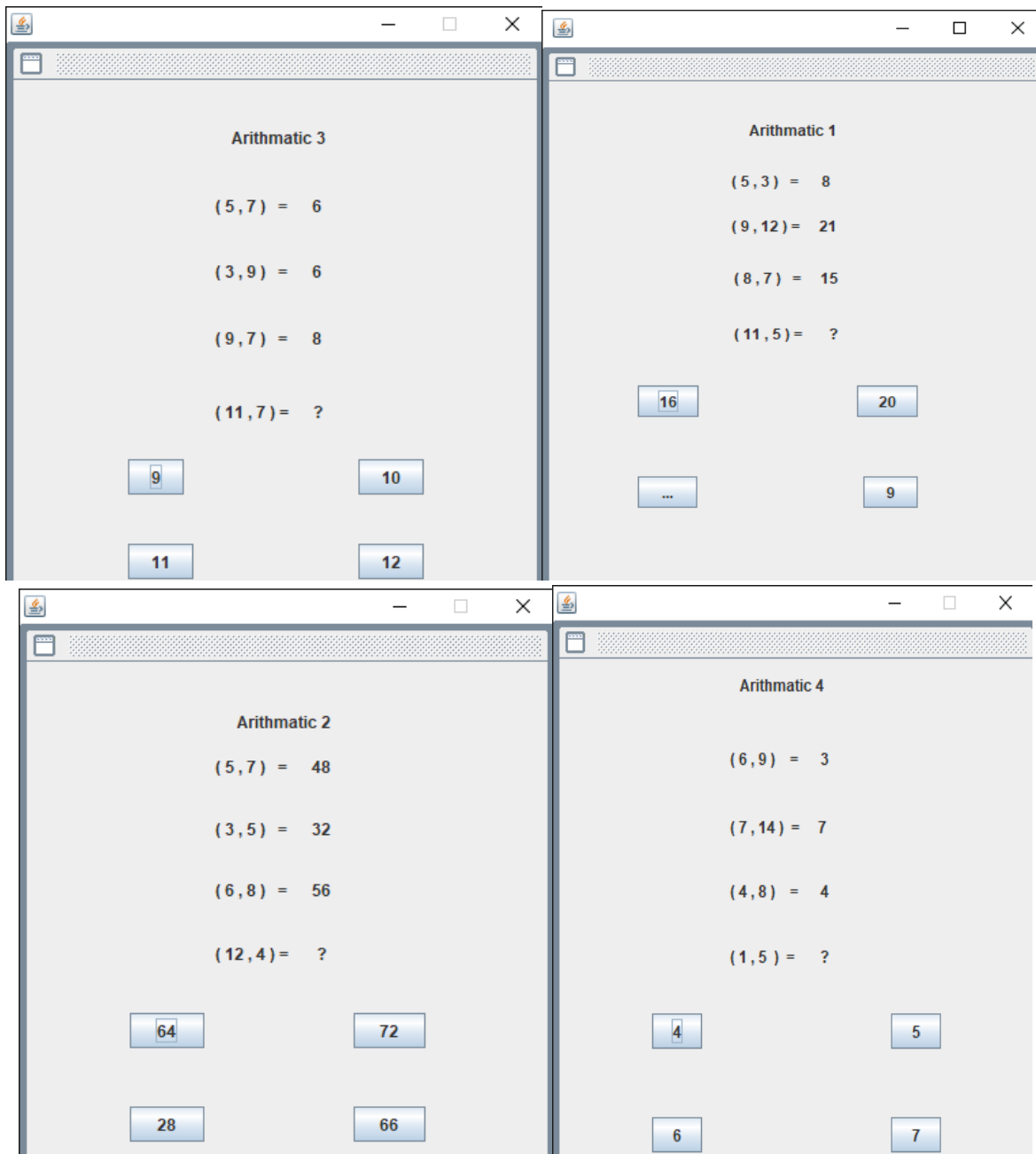


Fig 5: Level 1 to 4 of Arithmetic



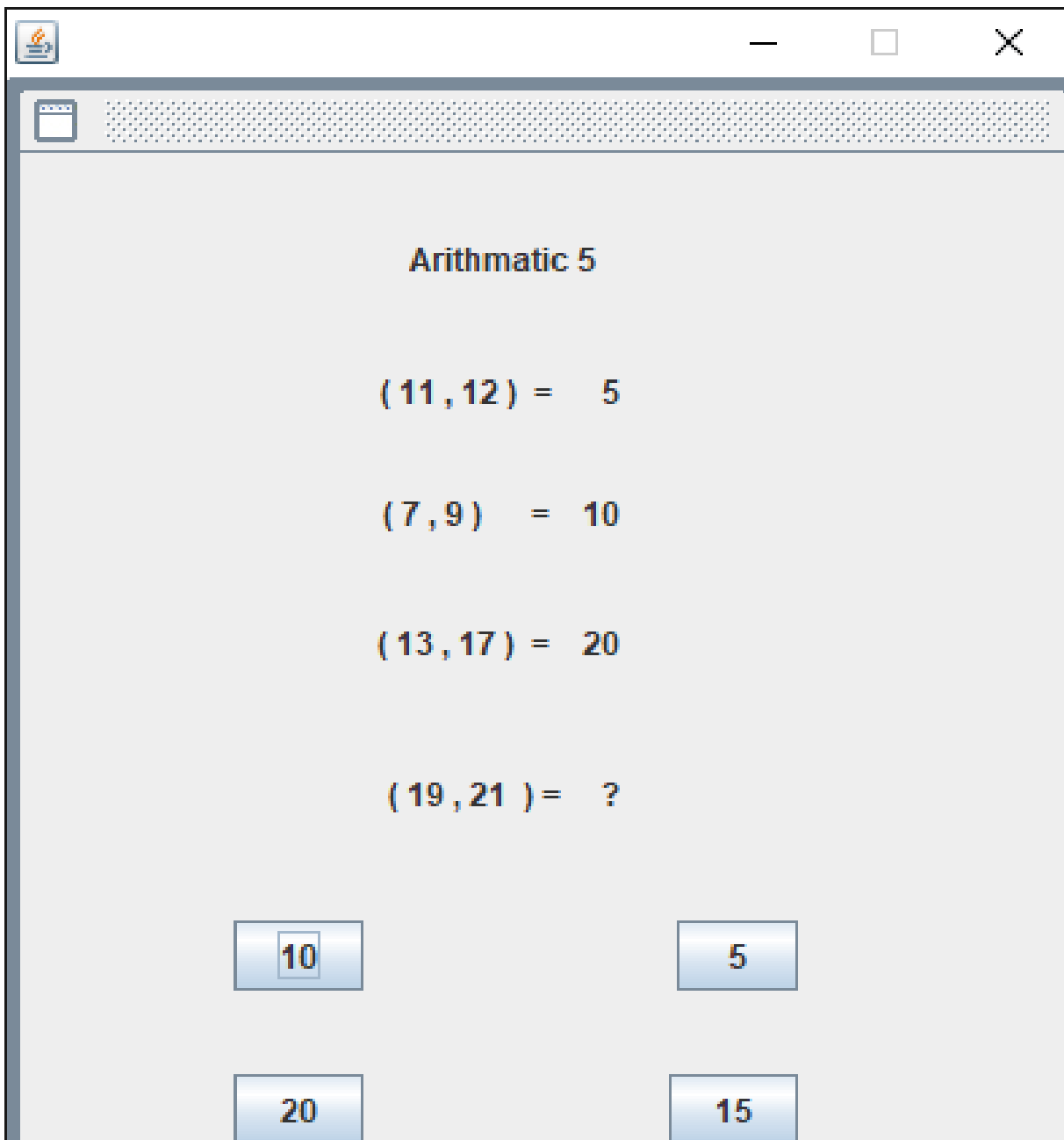


Fig 6: Level 5 of Arithmetic



Fig 7: Level 1 to 4 of Greater or Less

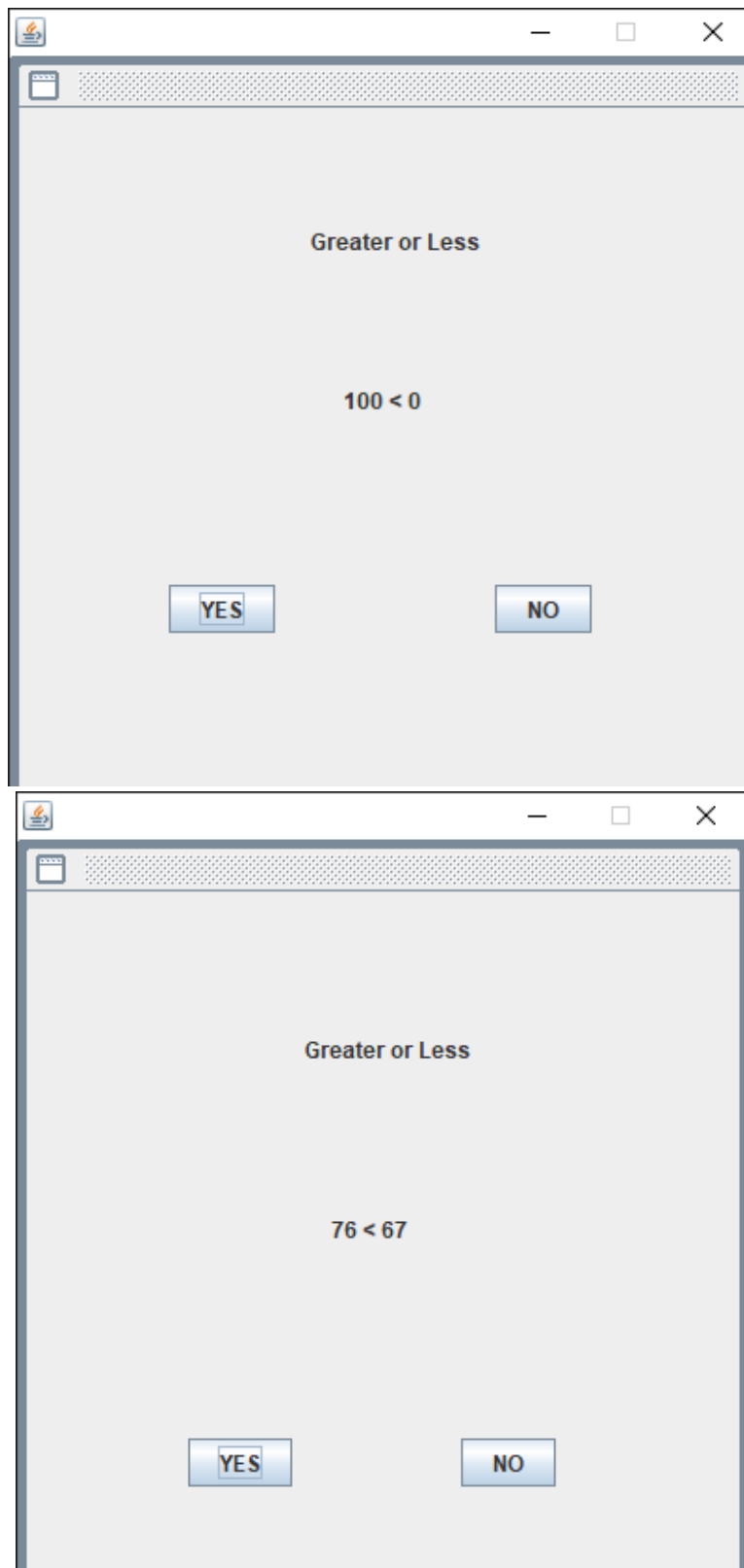


Fig 8: Level 5 to 6 of Greater or Less

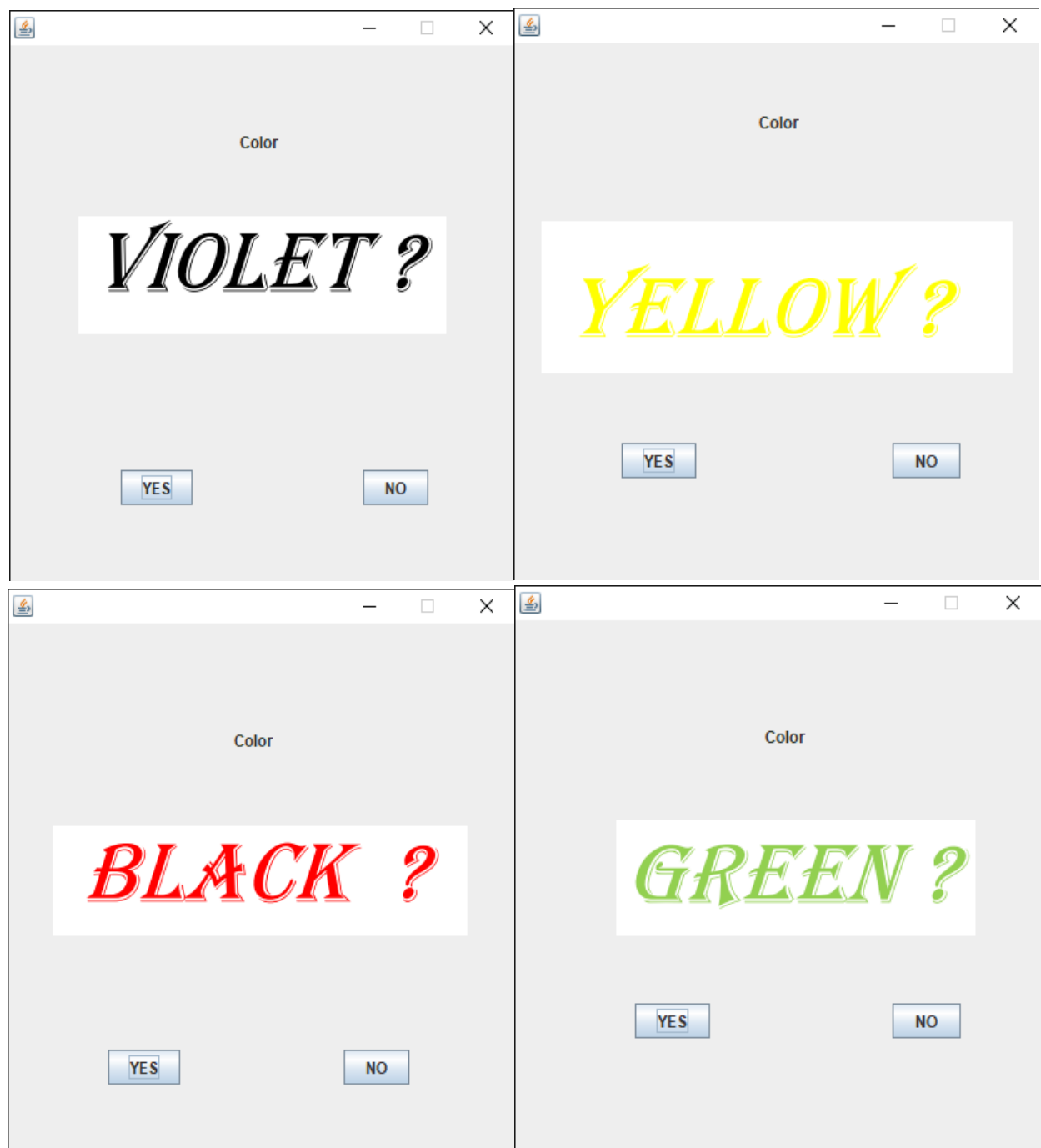


Fig 9: Level 1 to 4 of Color

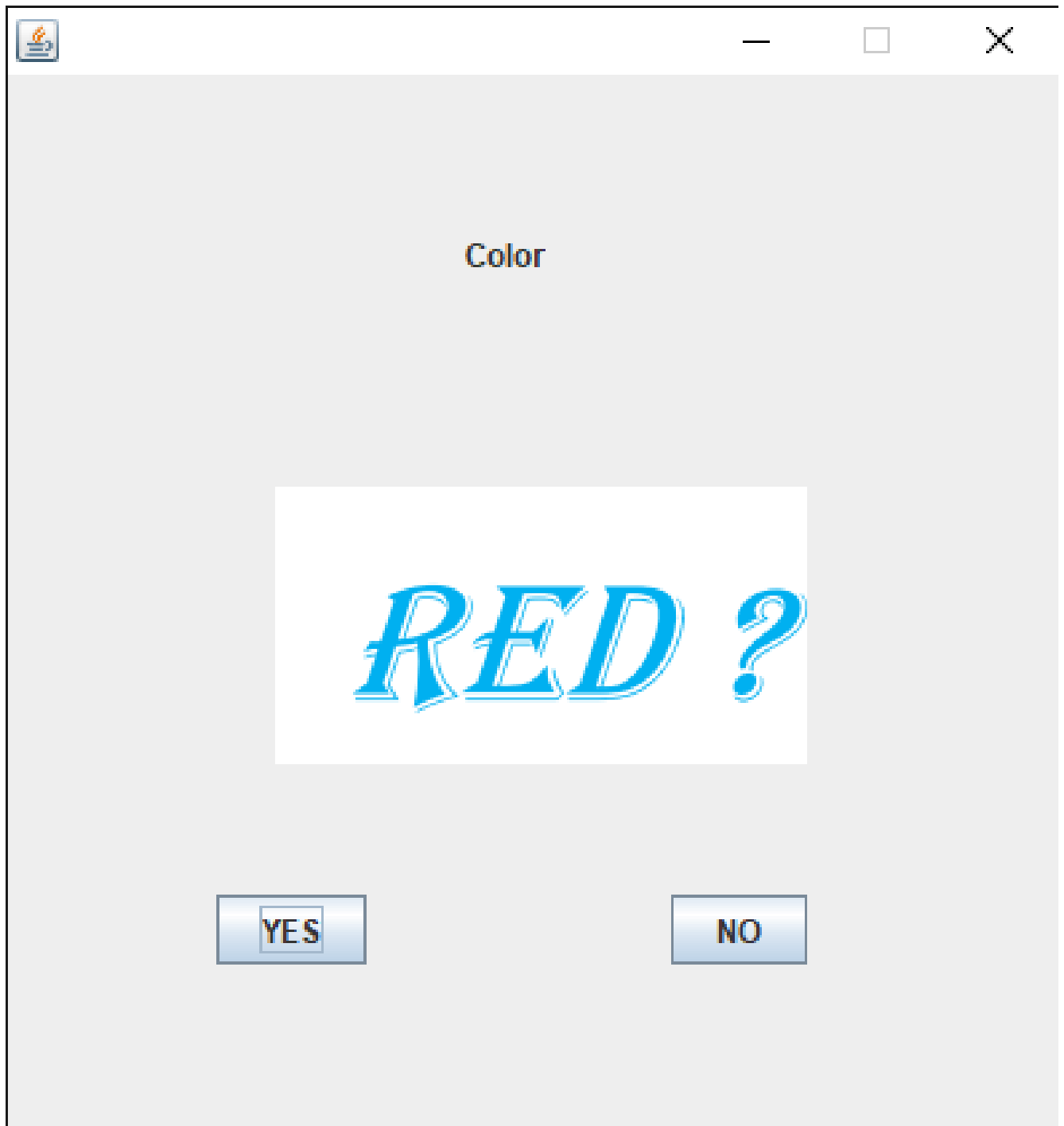


Fig 10: Level 5 of Color

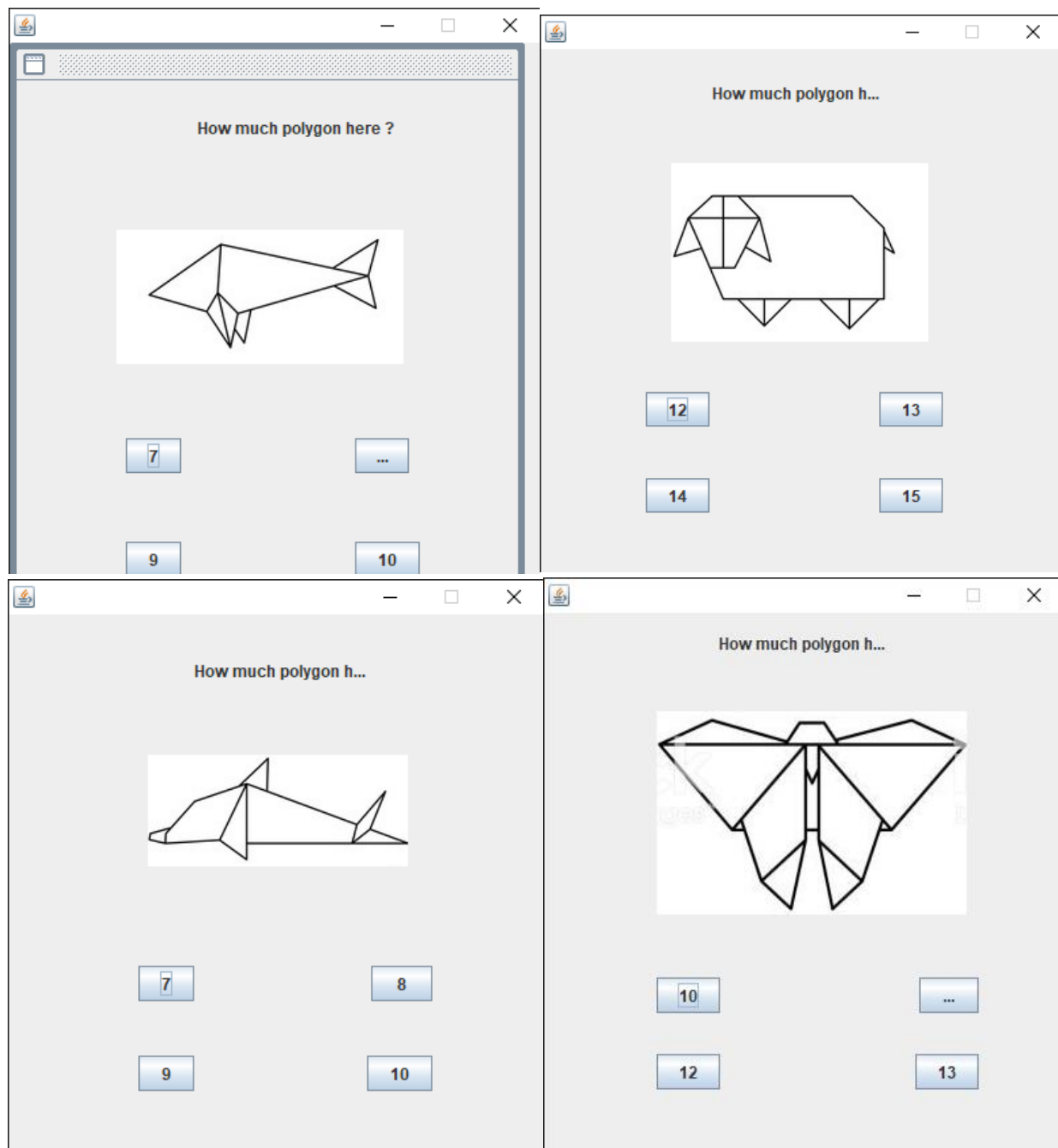


Fig 11: Level 1 to 4 of Polygone

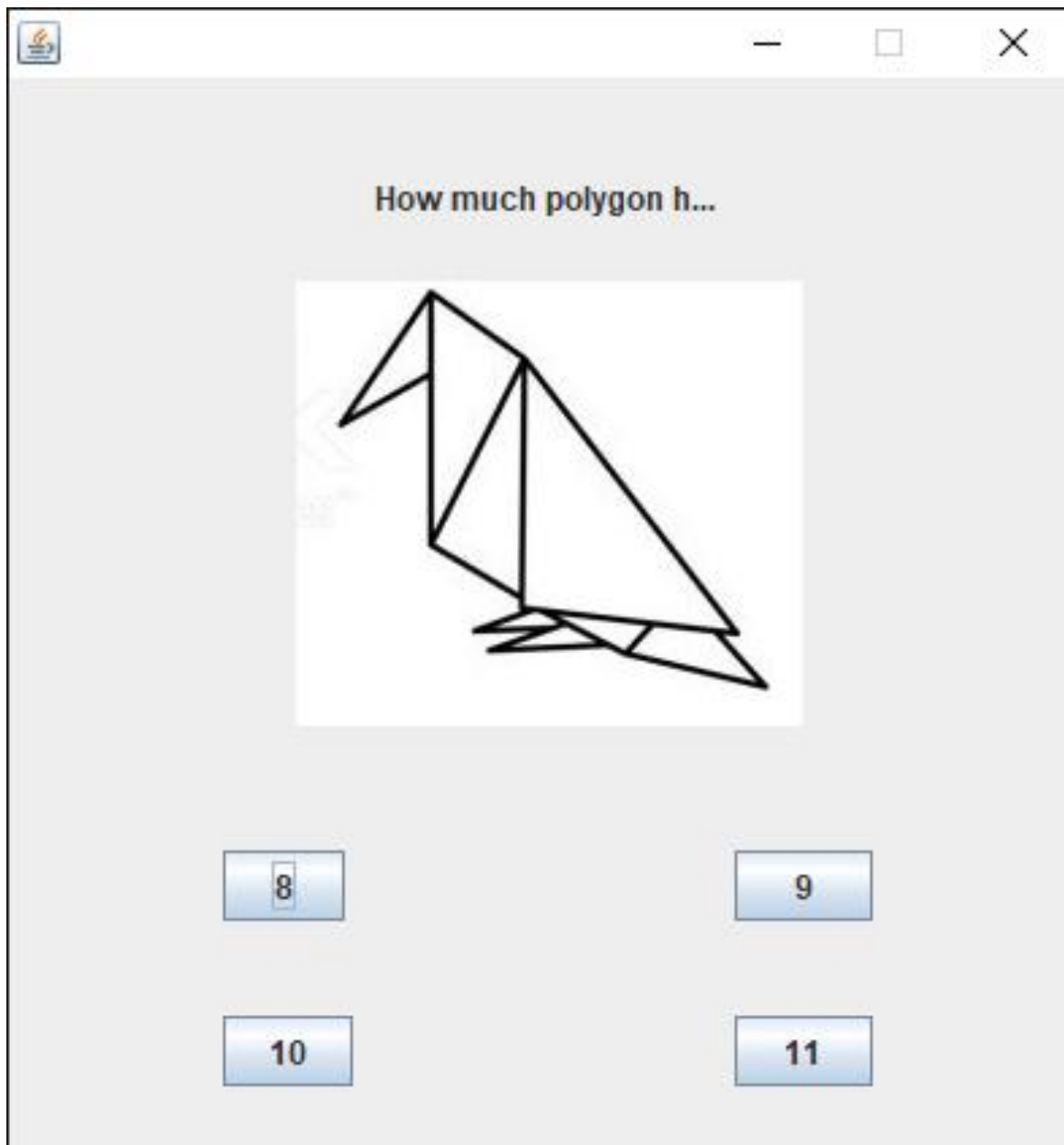


Fig 12: Level 5 of Polygone

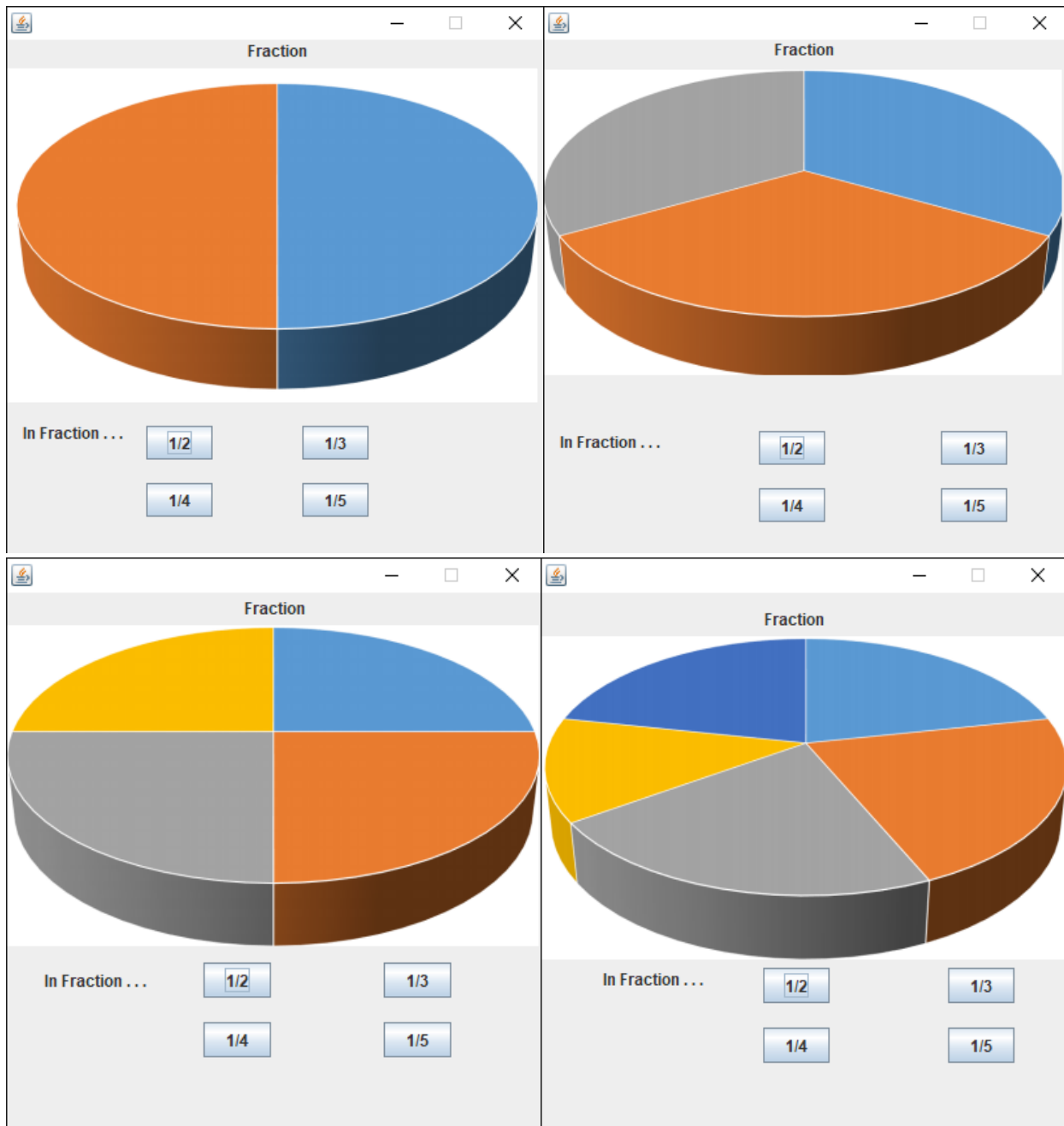


Fig 13: Level 1 to 4 of Fraction



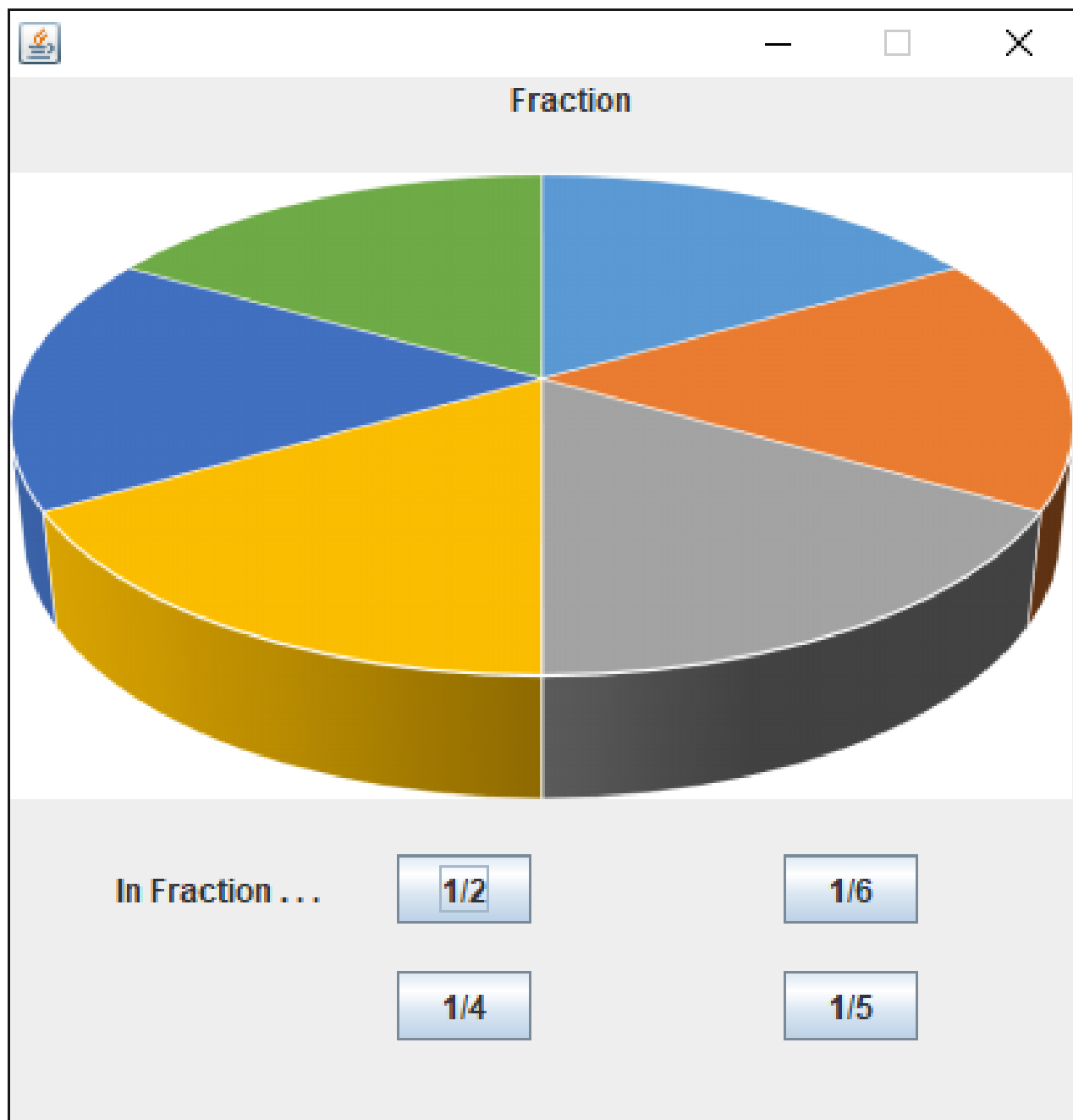


Fig 14: Level 5 of Fraction

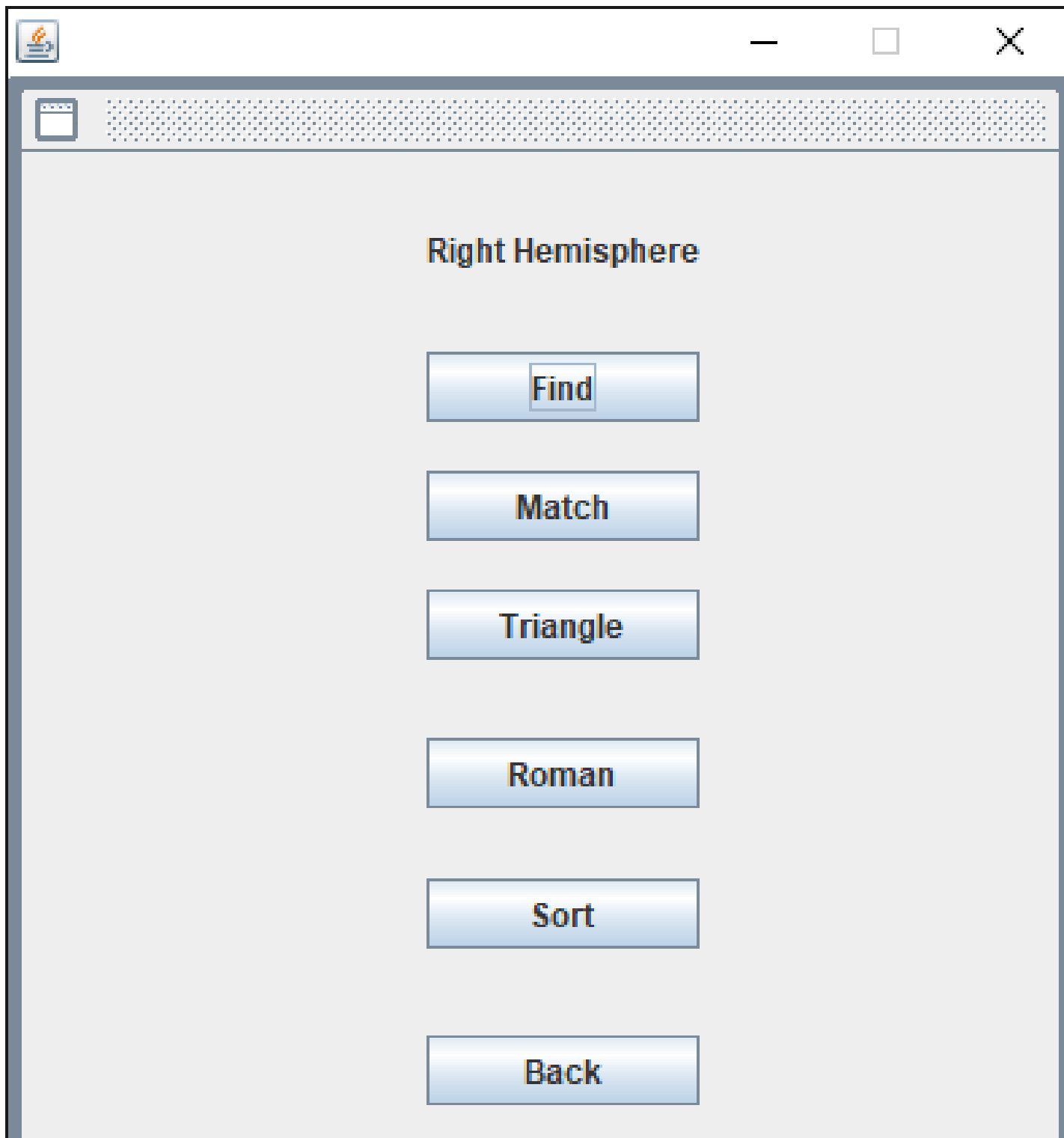


Fig 15: Segment for Right hemisphere.

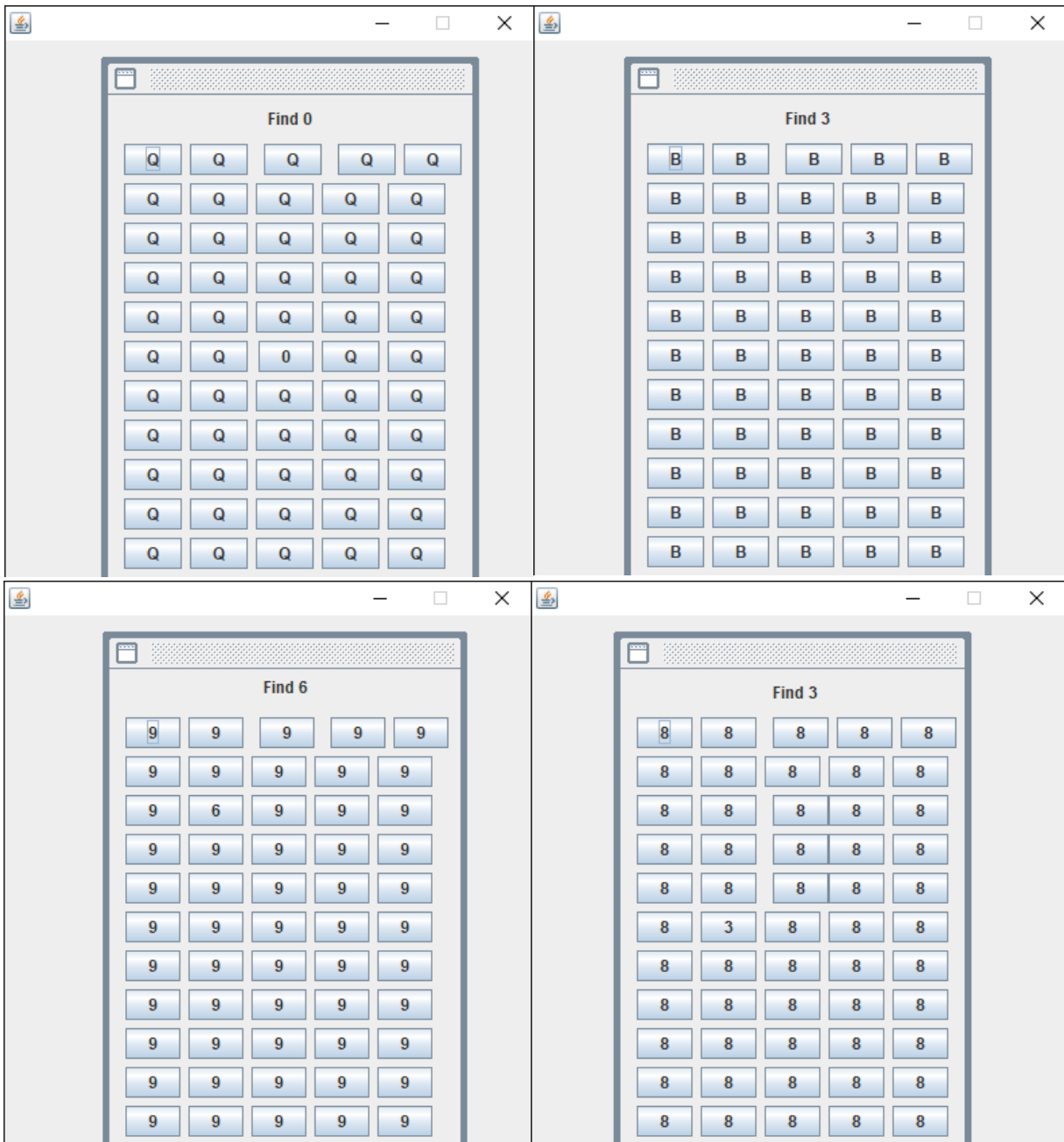


Fig 16: Level 1 to 4 of Find

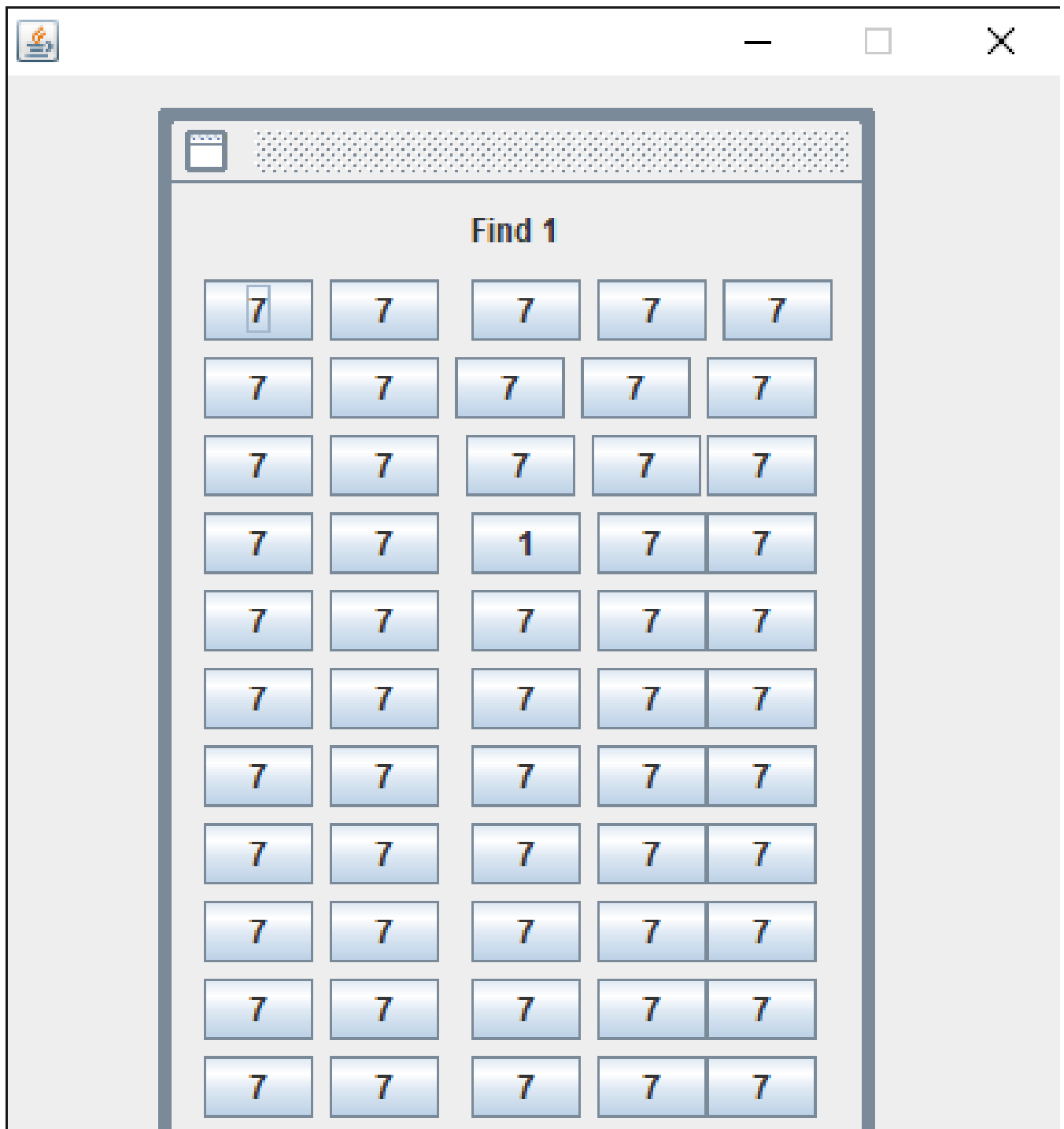


Fig 17: Level 5 of Find

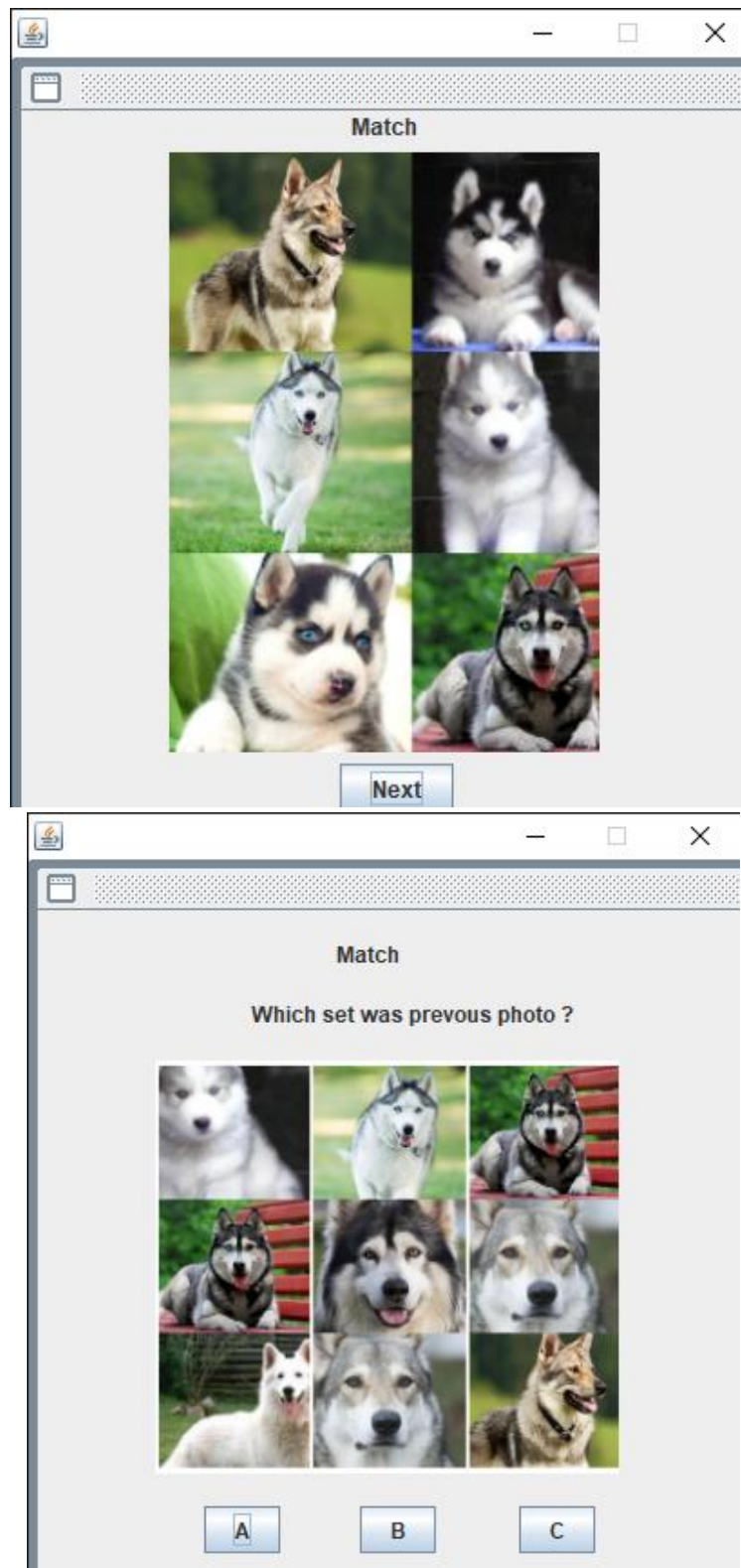


Fig 18: Level 1 of Match

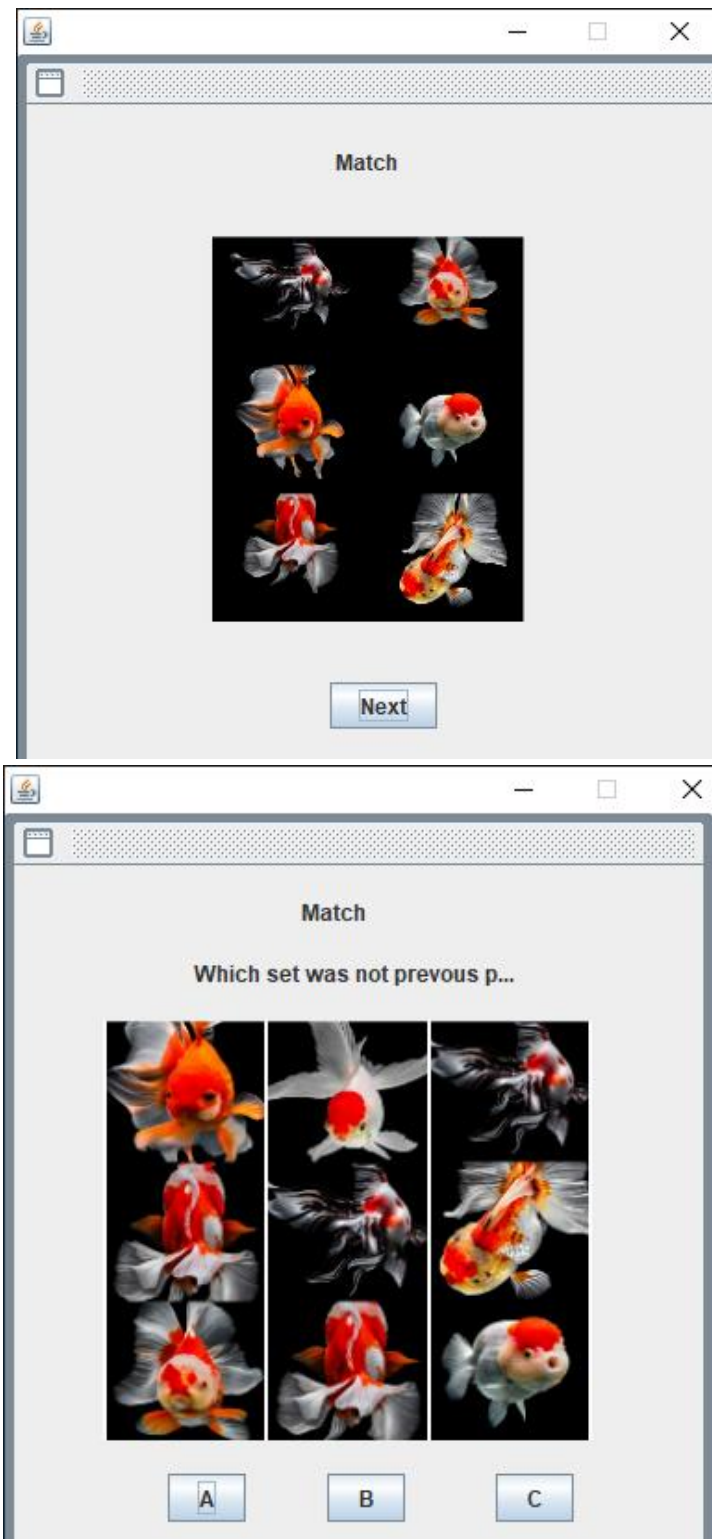


Fig 19: Level 2 of Match

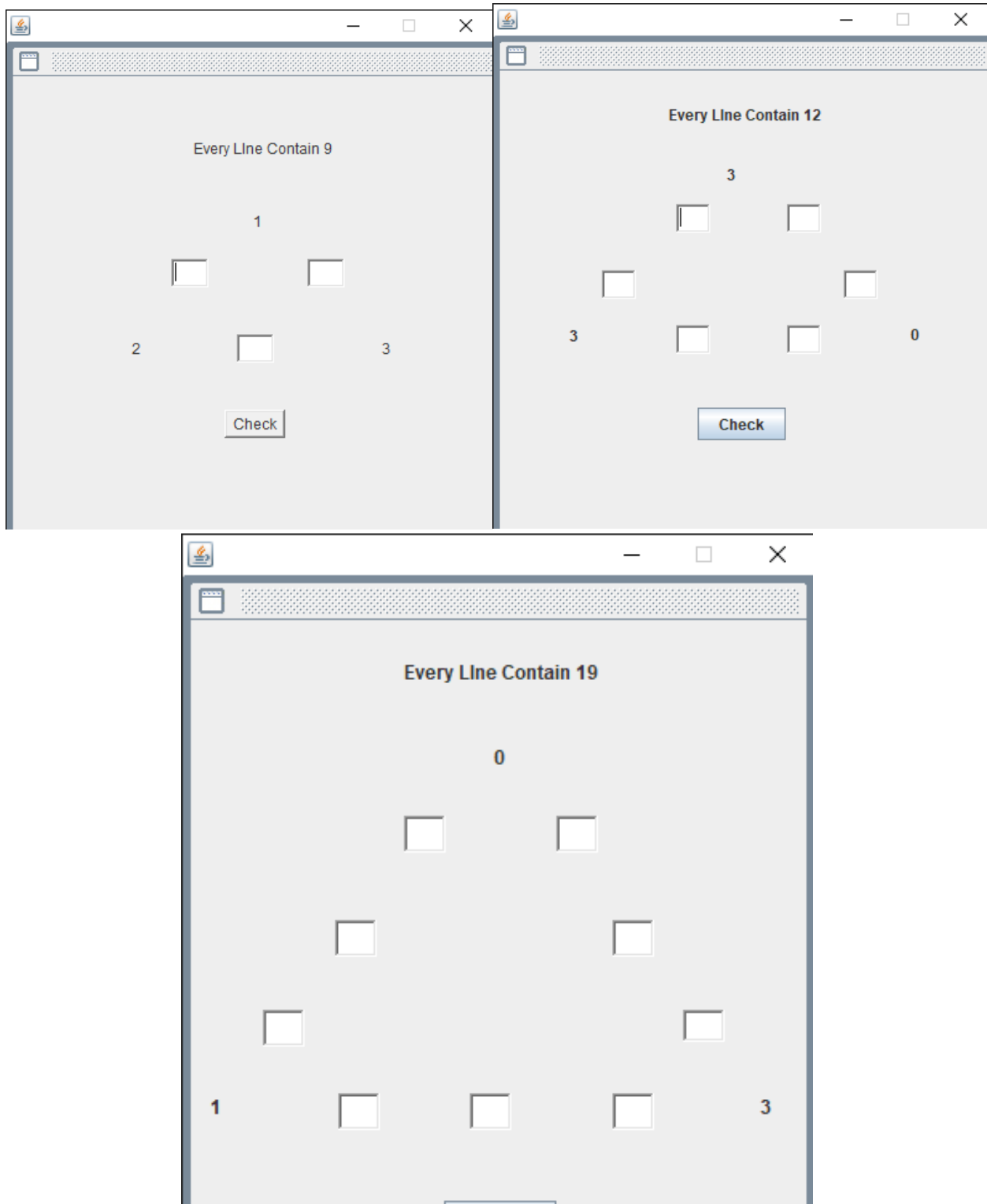


Fig 20: Level 1 to 3 of Triangle

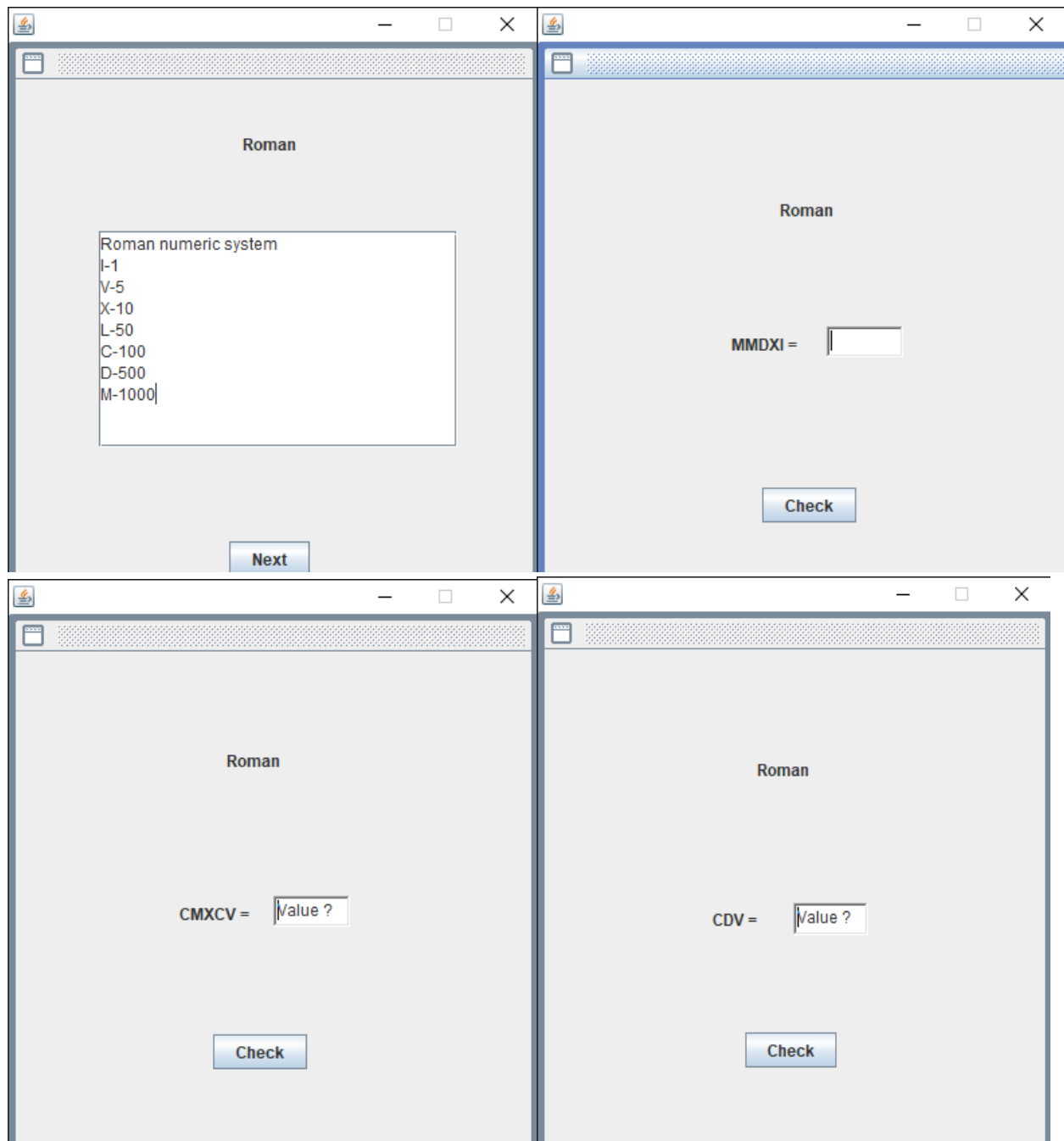


Fig 21: Level 1 to 3 of Roman



Roman

MMCDXCIX =

Roman

CMXCV =

Fig 21: Level 4 to 6 of Roman

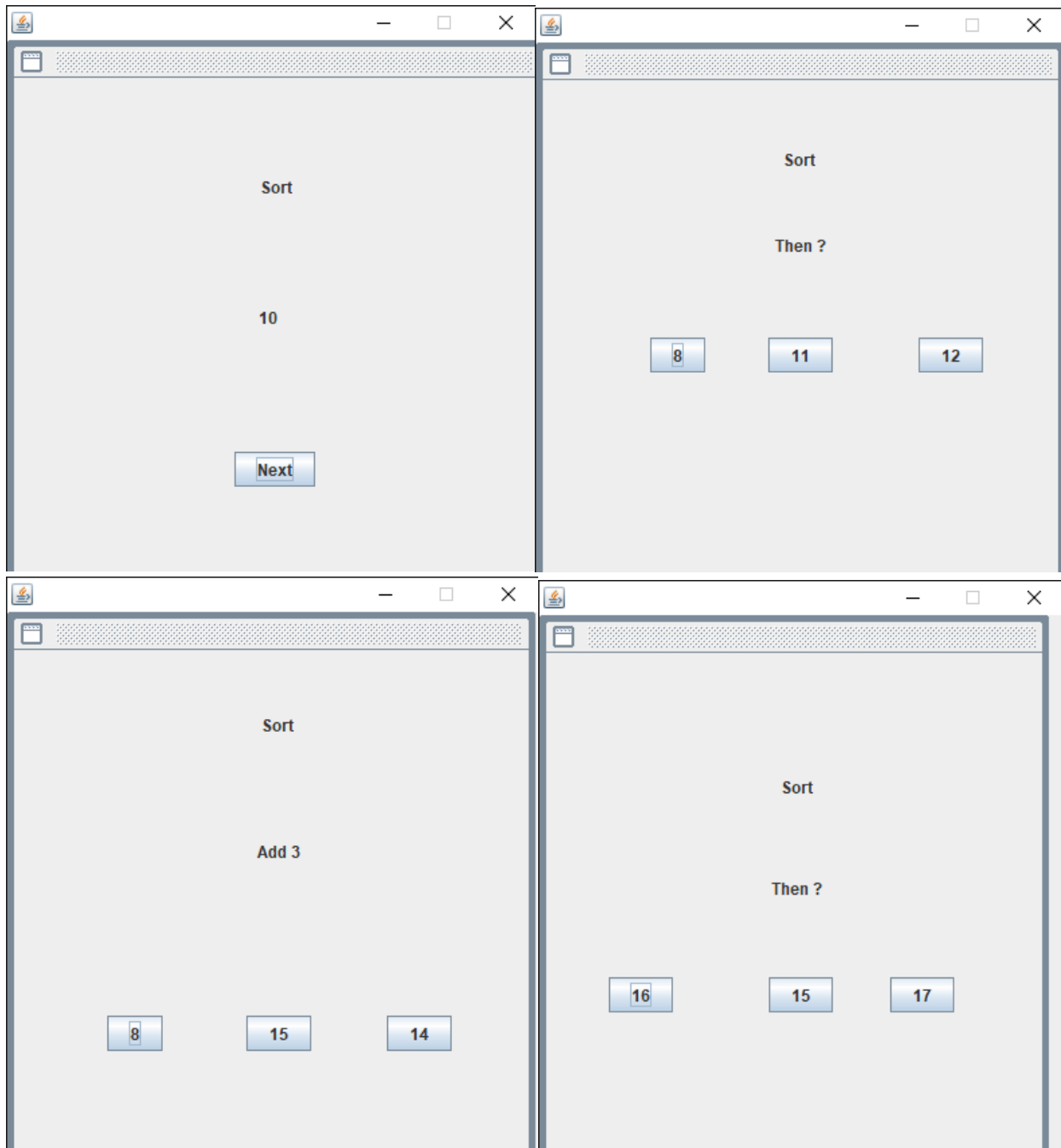


Fig 22: Level 1 to 3 of Sort

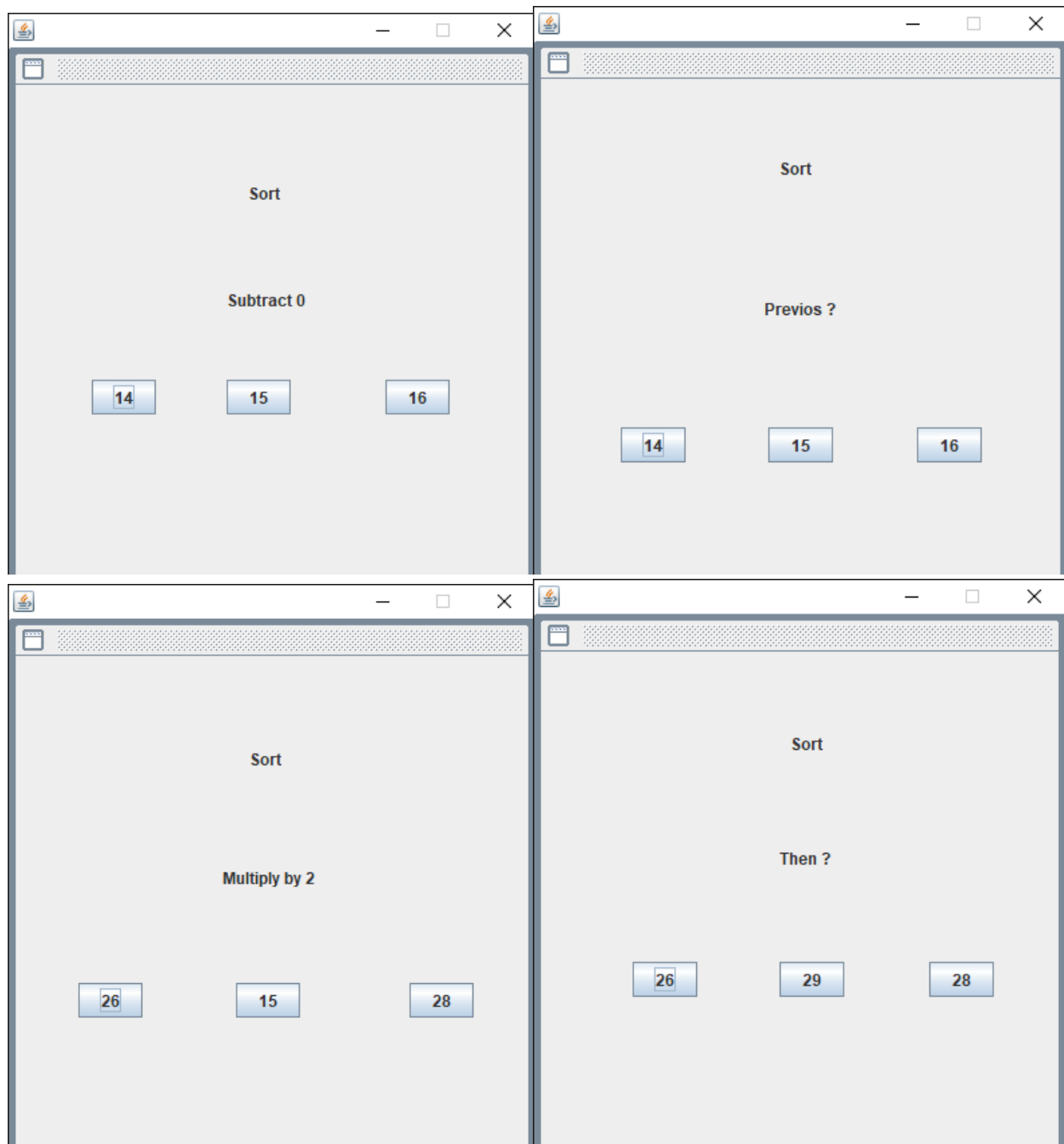


Fig 23: Level 4 to 7 of Sort

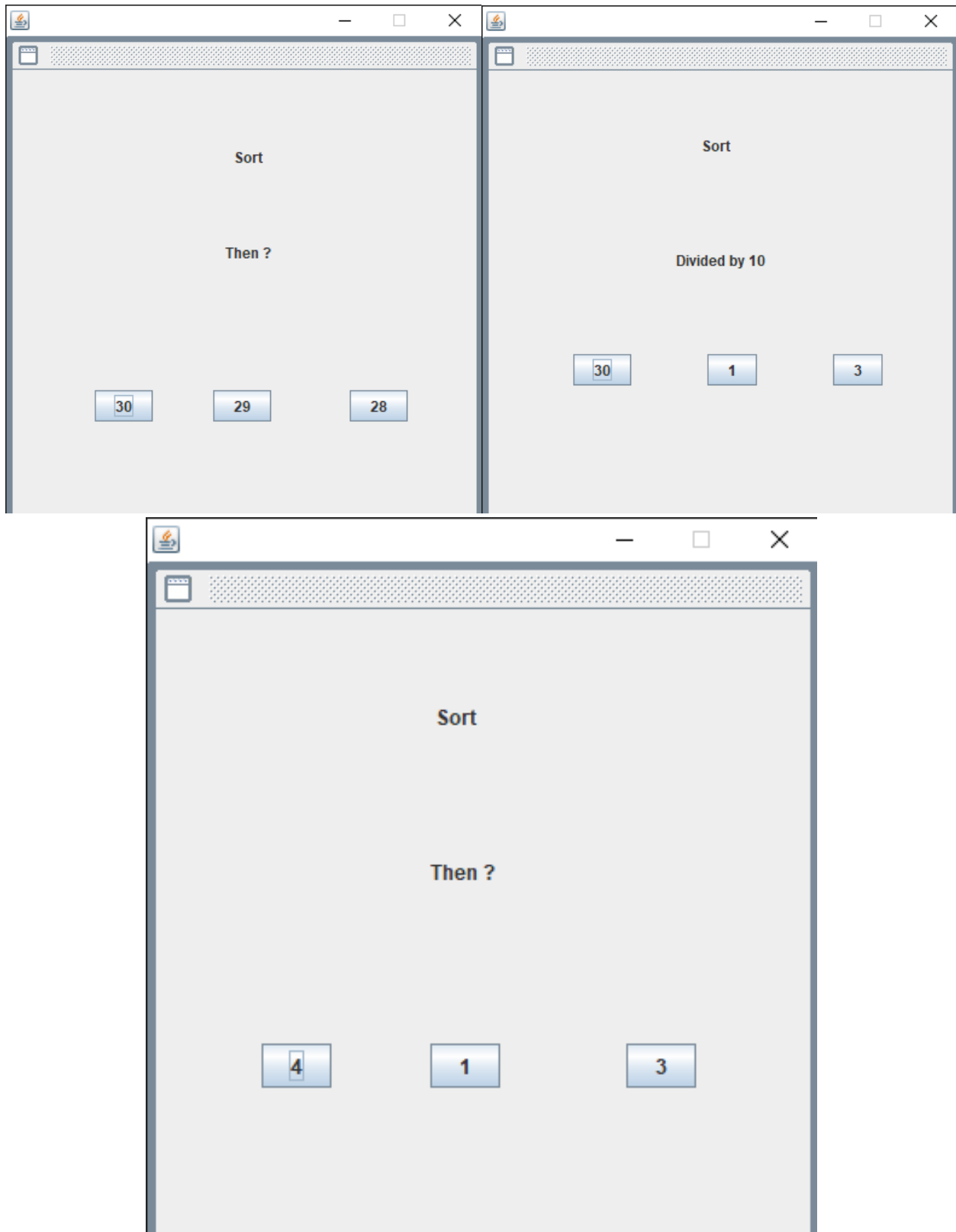


Fig 24: Level 8 to 10 of Sort

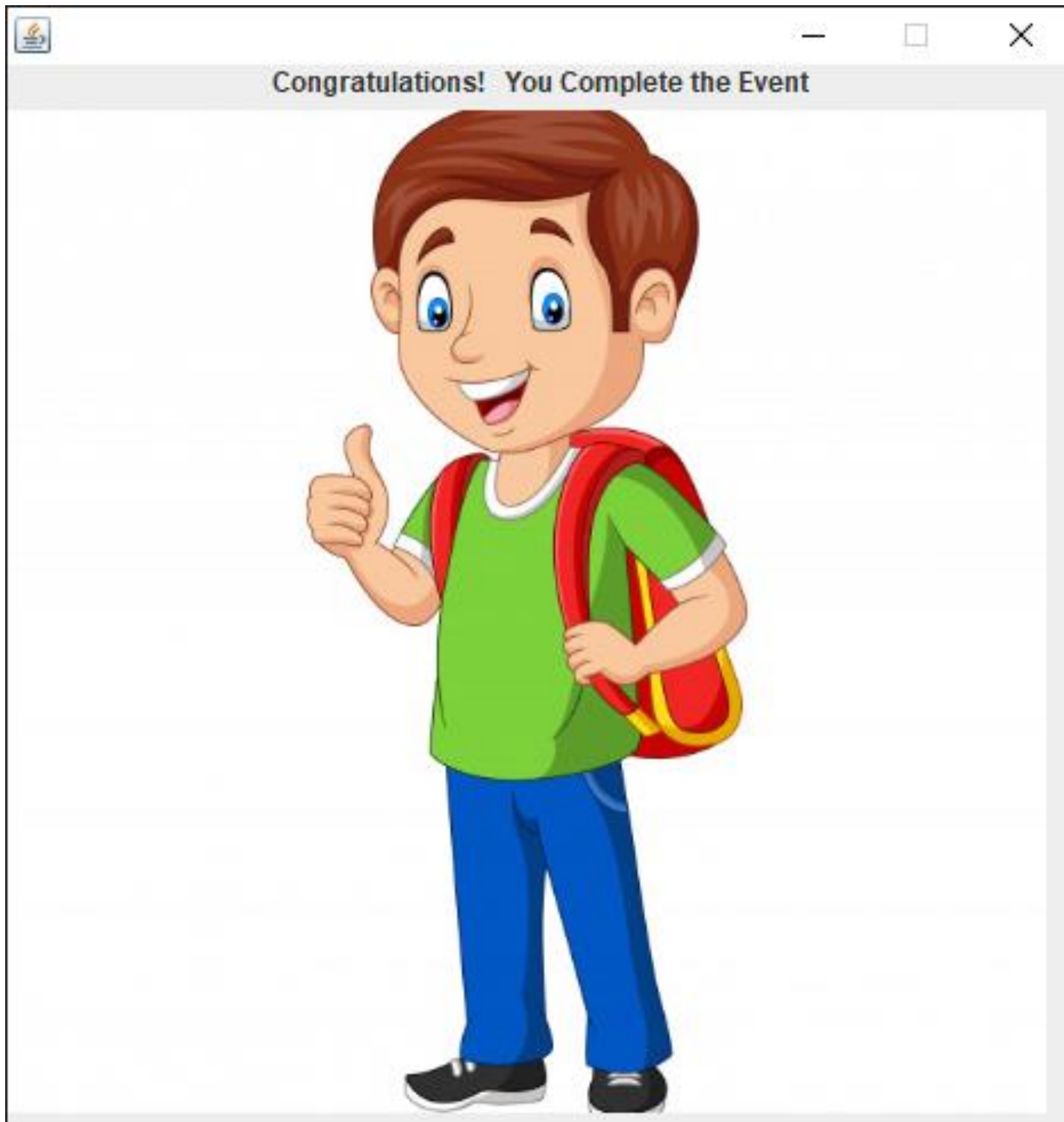


Fig 25: For segment is complete

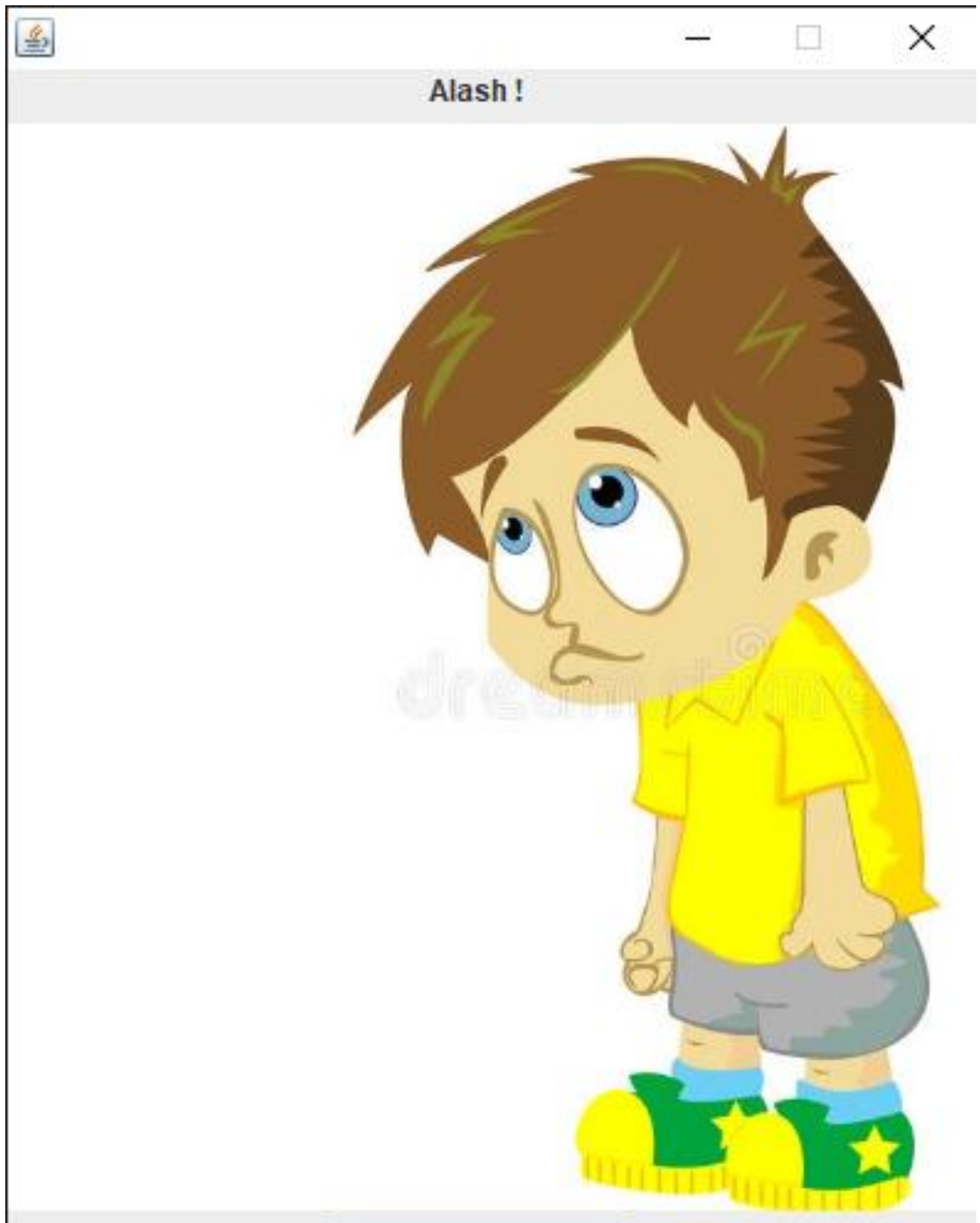


Fig 26: For false answer

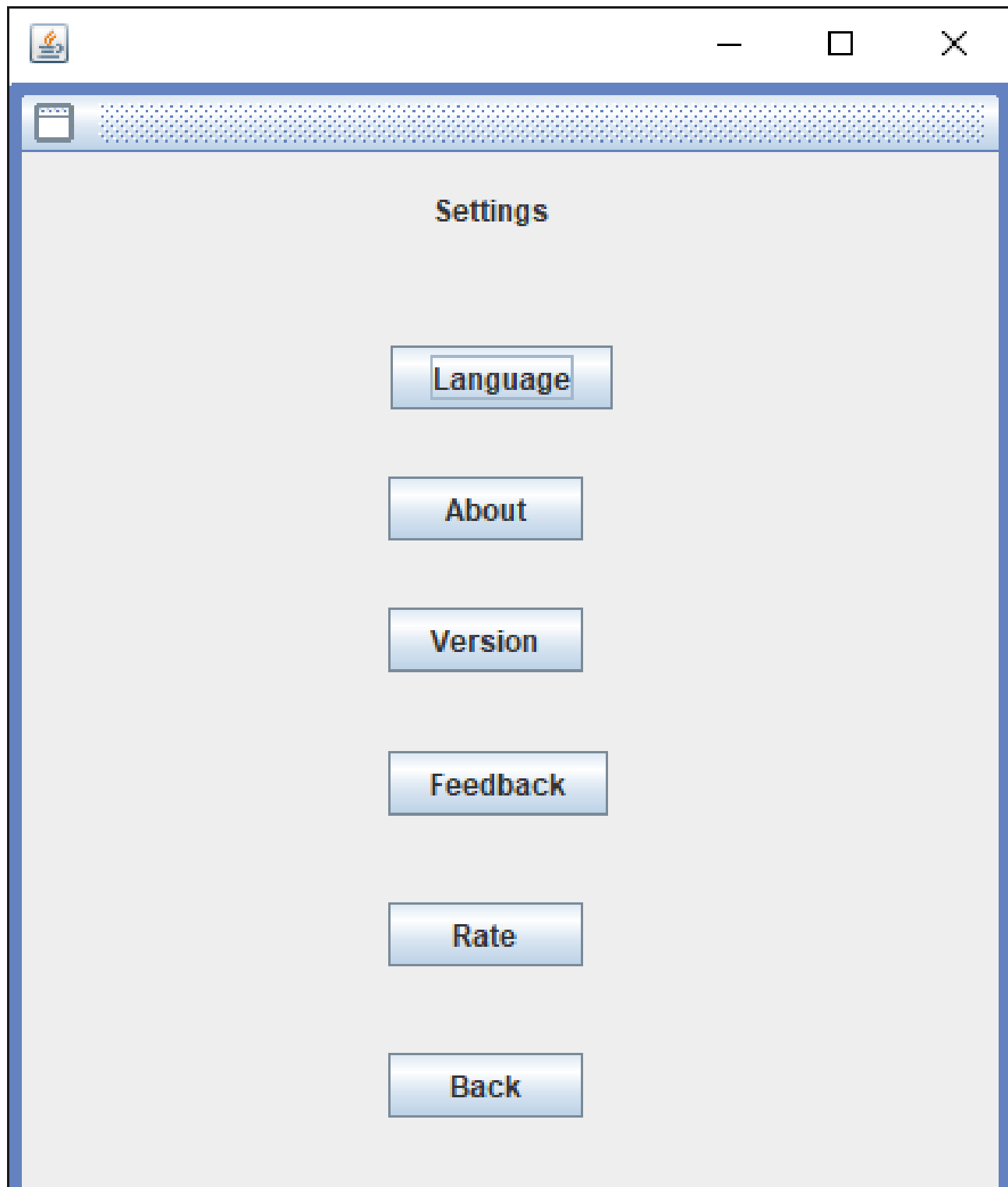


Fig 27: Settings

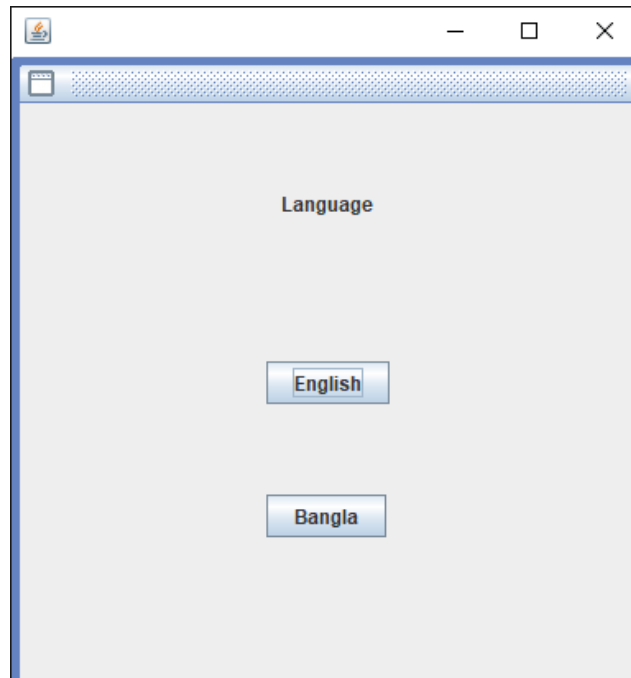


Fig 28: Language

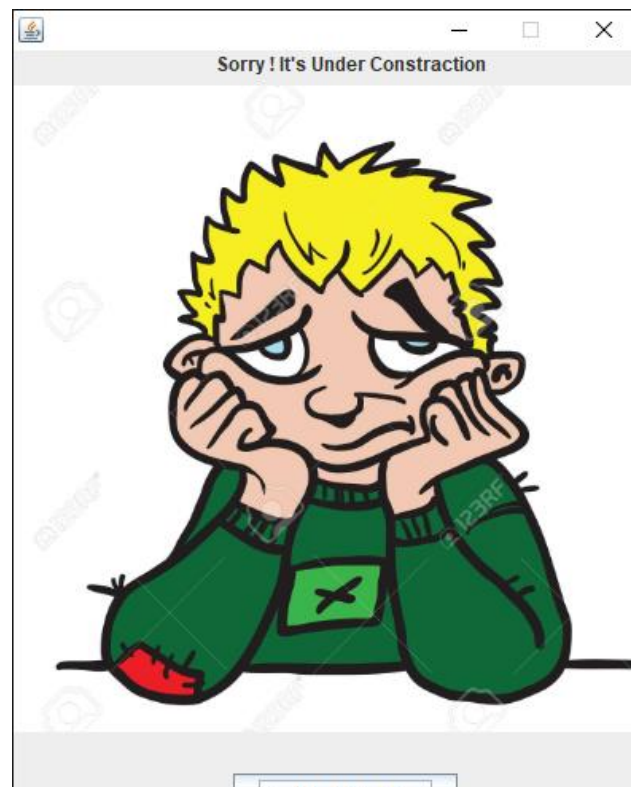


Fig 29: Bangla Language is under Constraction



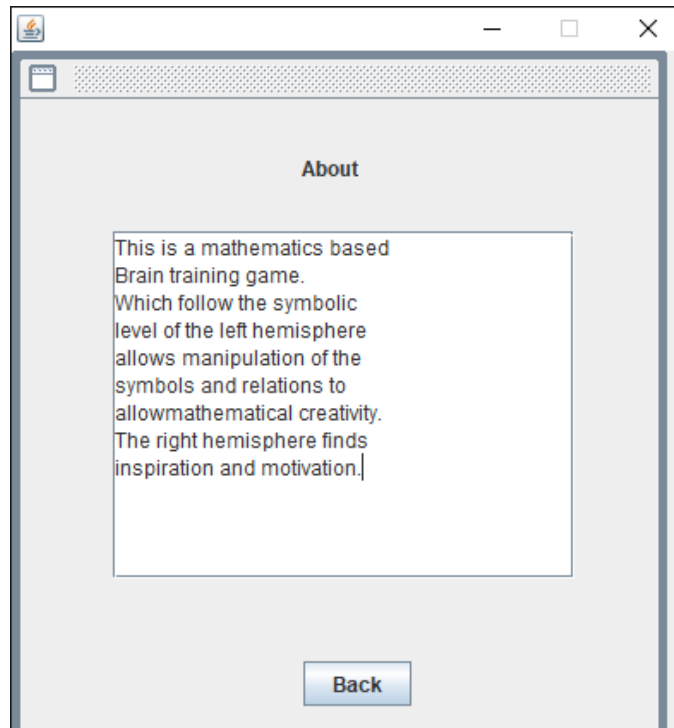


Fig 30 : About

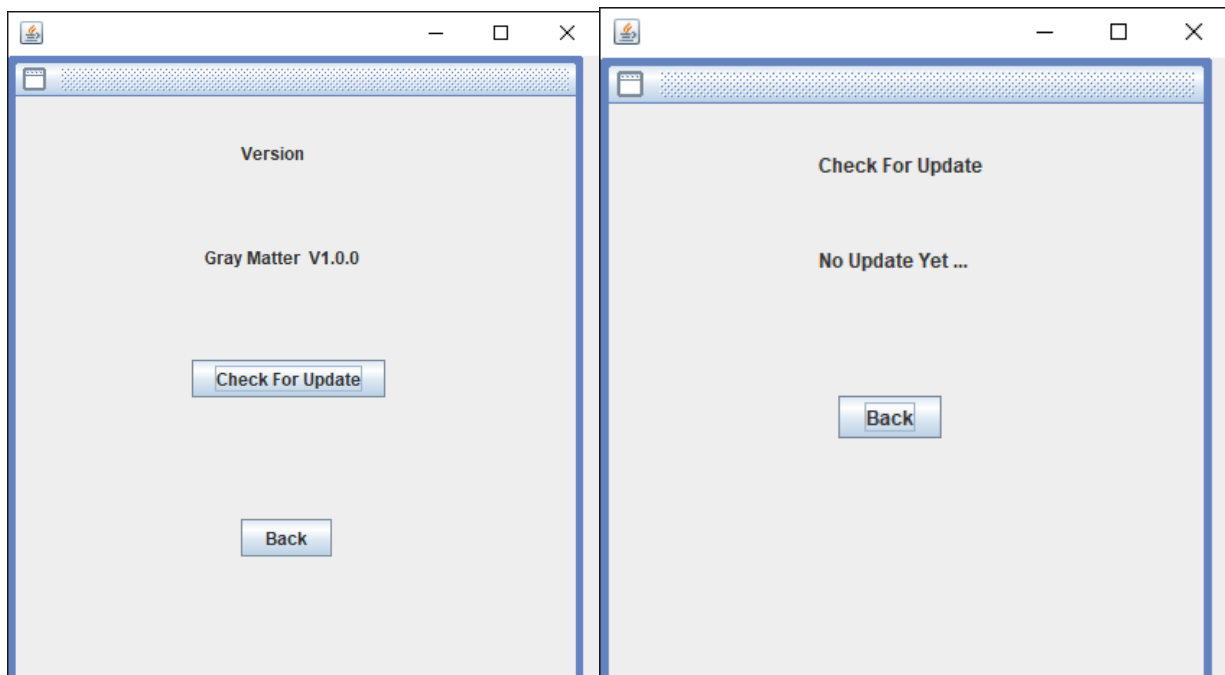


Fig 31: Version

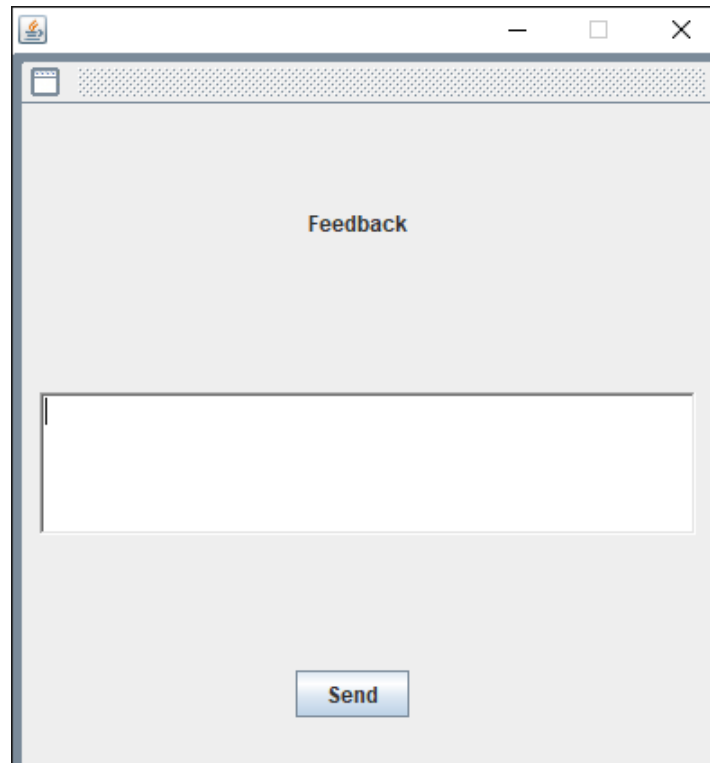


Fig 32:FeedBack

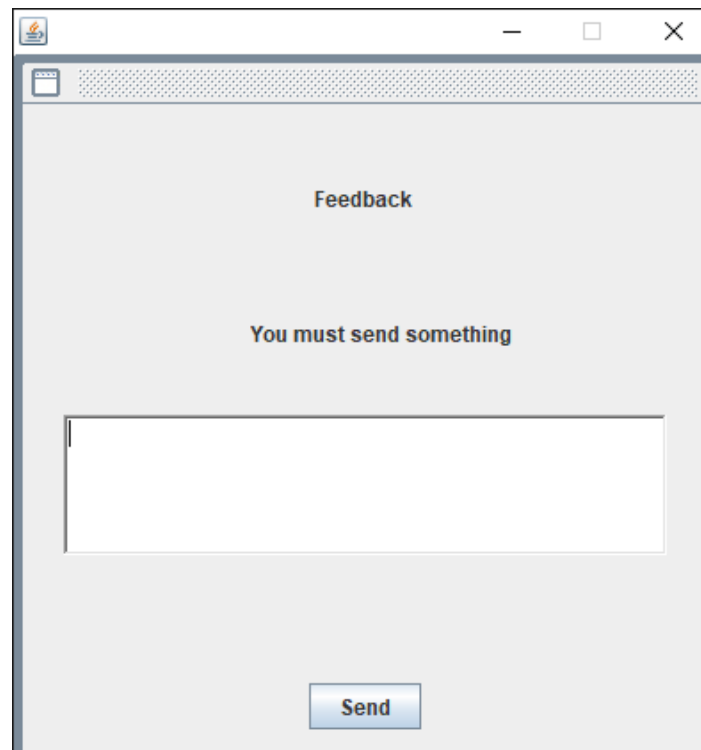


Fig 33:Must give FeedBack

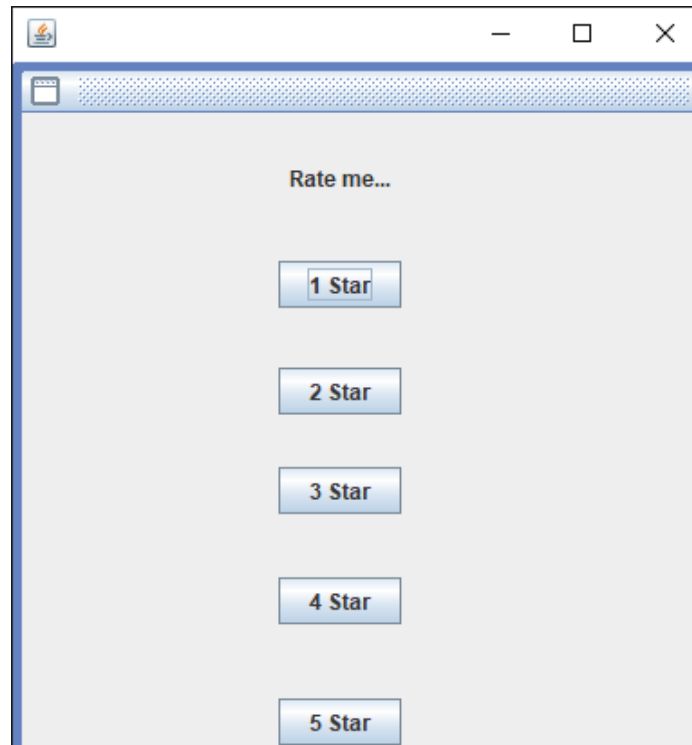


Fig 34:Rate



Fig 35: For response on rating and feedback

## **13. Testing Approaches**

Describe which testing techniques has been used for the testing of the product.

This part should be at least 1 page and at most 2 pages long.

## **14. Test Cases Design and Result Evaluation**

Design the test cases and evaluate the results to measure the performance of the system.

This part should be at least 2 pages.

## **15. Risks**

What are the risks at the market? How can you resolve the risks?

This part should be at least 2 pages and at most 3 pages long.

## **16. Costs**

Describe the detailed costs of the product including product cost, hardware cost, software cost and maintenance cost. Also describe the costs that will be needed to run the system.

This part should be at least 2 pages.

## **17. Time Table**

Show a time chart that will describe how much time you've spent in each step of the production with detailed description.

This part should be at least 1 page and at most 2 pages long.