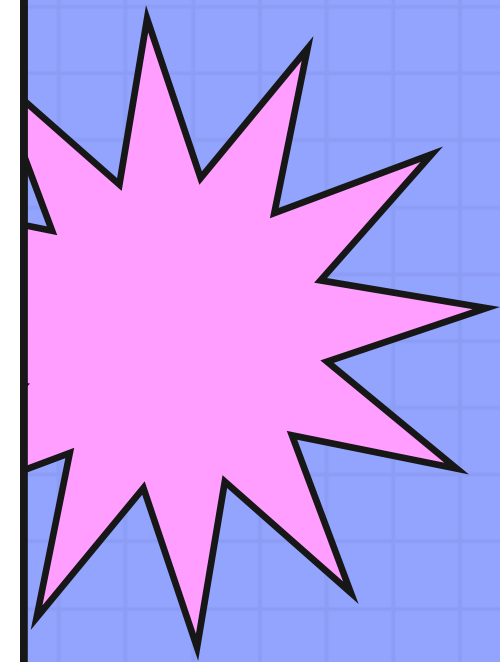
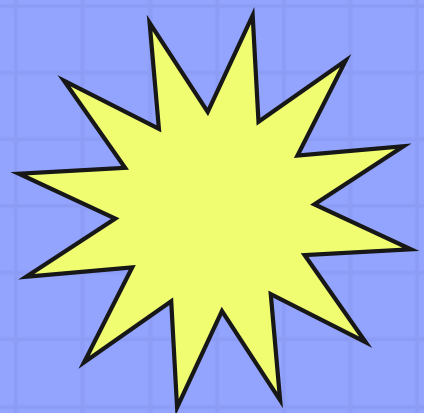
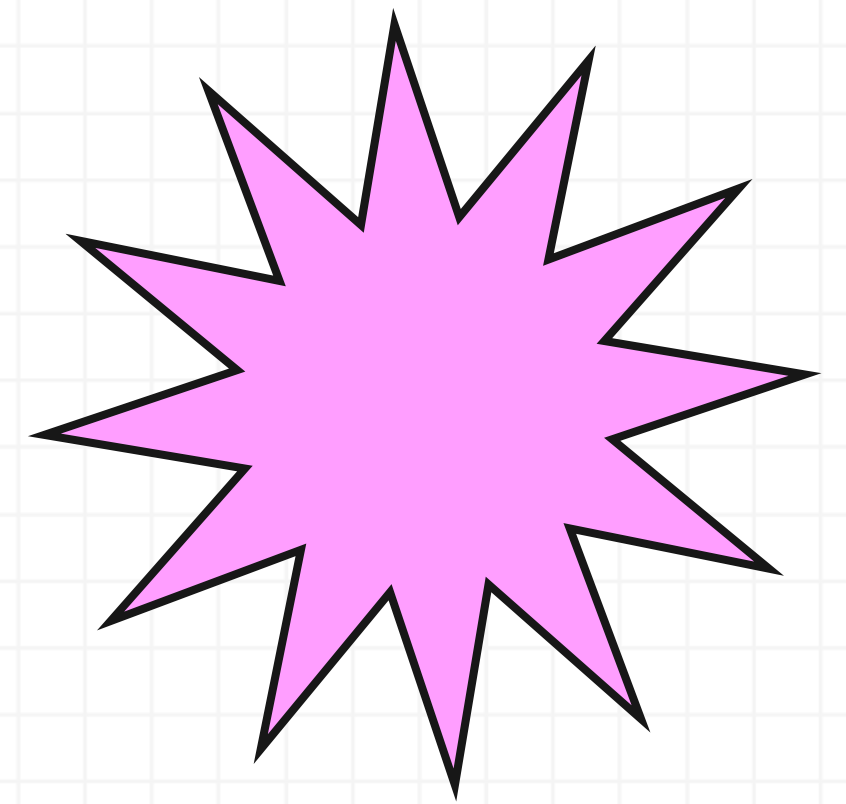


# PBL II PROJECT 3 FINAL PRESENTATION



# Team Members



**1.Engineer**

**Ramazan  
FIDAN**

**2.Engineer**

**Y. Emre  
TASBASI**

**3.Engineer**

**Ramazan  
DENLI**

**4.Engineer**

**Kerem  
KALINTAS**

# Presentation Outline

**INTRODUCTION**

**PROGRESS SUMMARY**

- **Requirements**
- **Task Sharing**
- **Scheduling**
- **Completed Tasks**
- **Additional Improvements**

**PROBLEMS ENCOUNTERED**

**ALGORITHMS AND SOLUTION STRATEGIES**

**CONCLUSION**

**QUESTIONS**

**REFERENCES**



# INTRODUCTION

**In this presentation, the computer game called Chain, developed by our team, will be introduced.**

# What is Chain Game

Number area of the board ( $10 \times 16$ ) is filled with 1, 2, 3 or 4 numbers with equal probability. Player can set the random number seed.

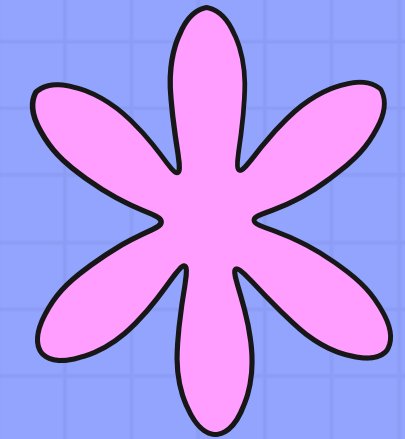
Player constructs a single chain by inserting + into the suitable places.

Difference between neighbor squares in the chain must be 1 (+1 or -1).

The score of the chain is  $n^2$   
(n: The number of elements in the chain)

The chain is added to the table.  
The chain disappears from the board.

# Requirements

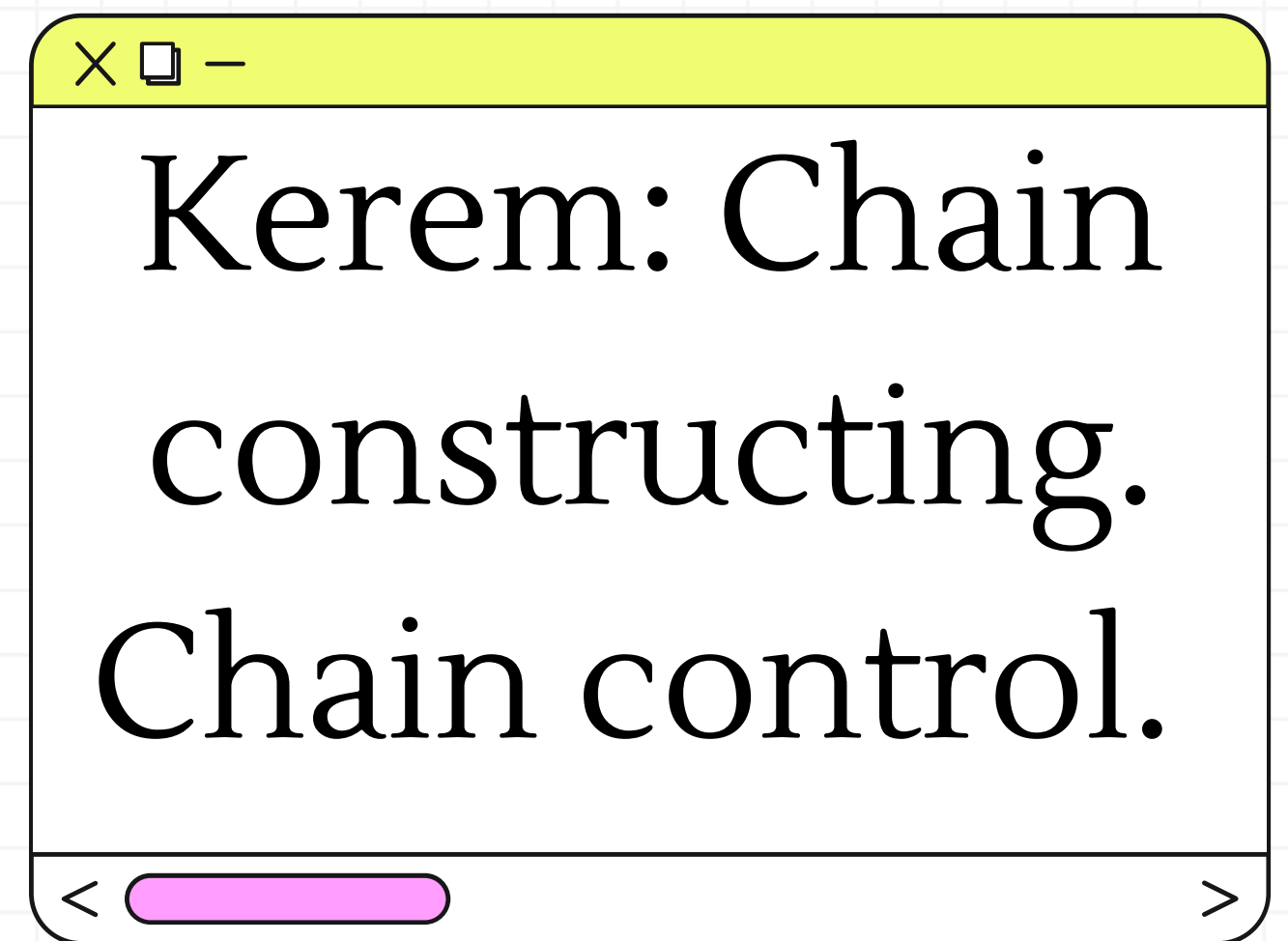
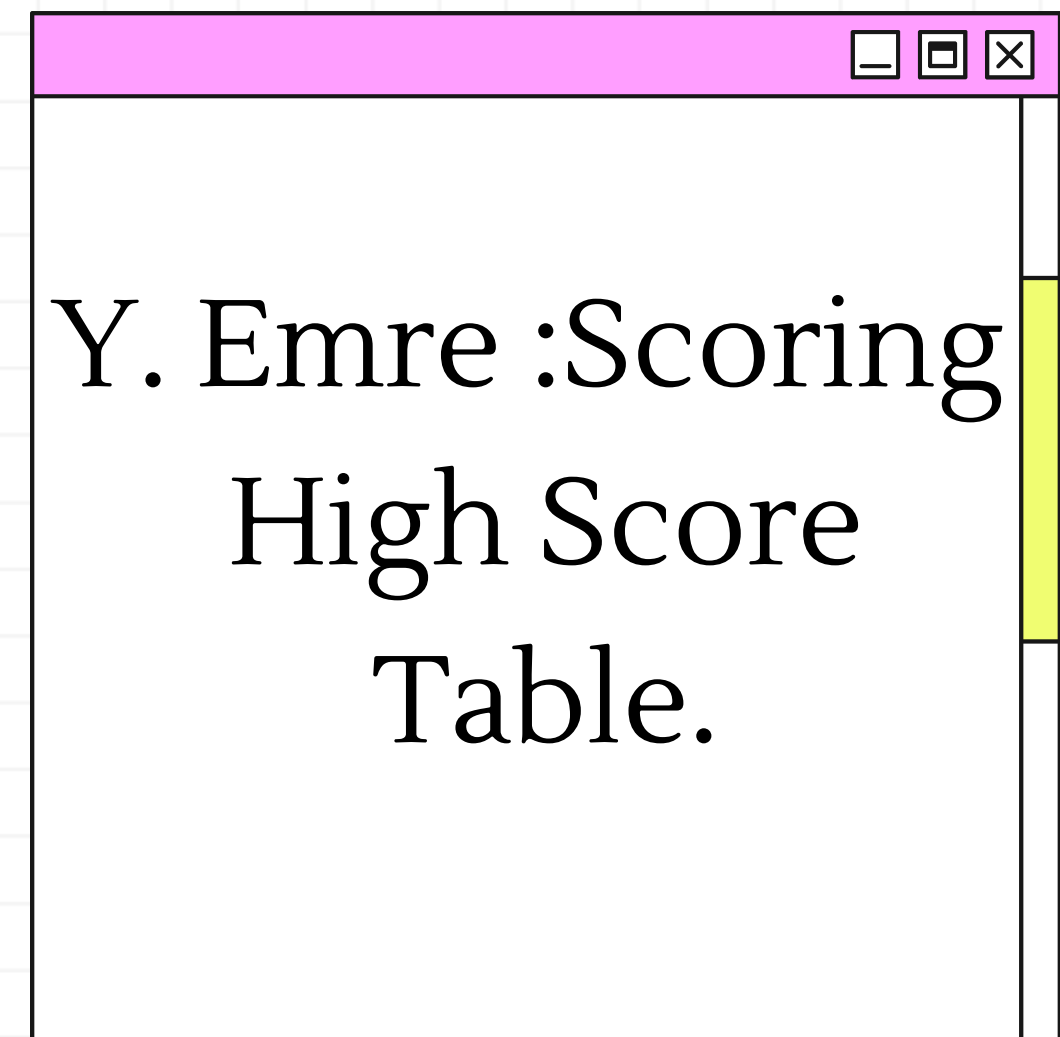
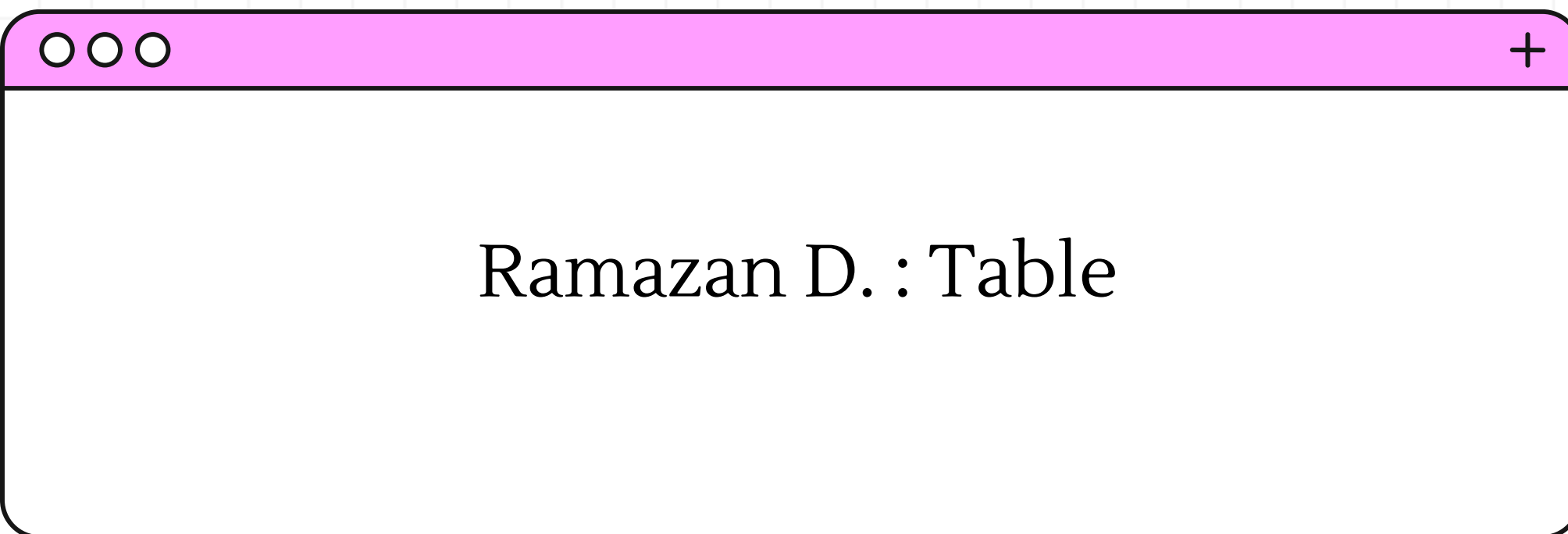
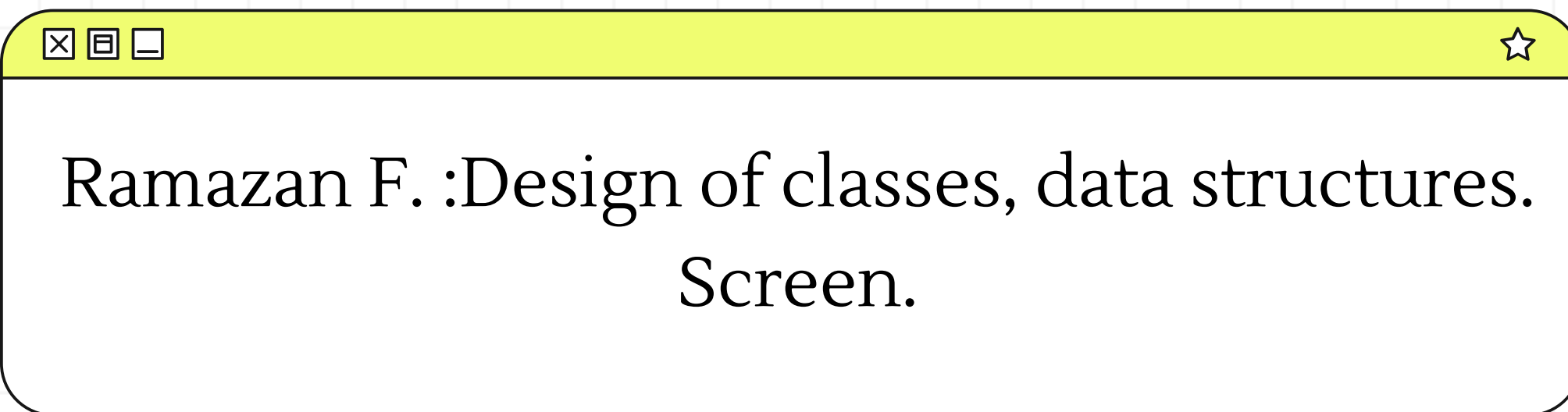


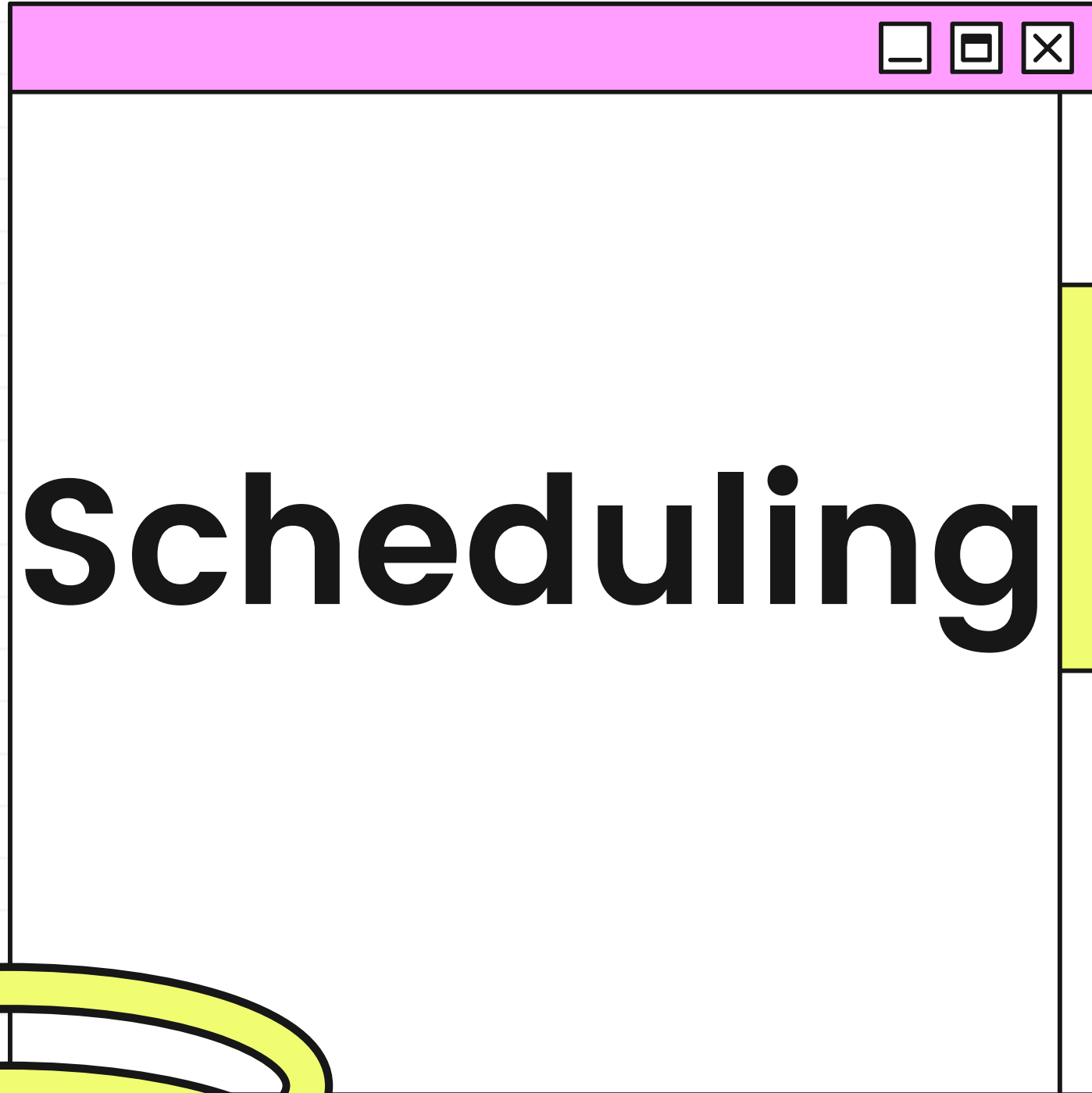
**Single,  
Double,  
Multi  
linked list  
knowledge**

**Game  
information,  
Rules**

**Advanced  
knowledge  
of java**

# Task Sharing





# Scheduling

In the first week, we discussed the required data types and created the classes we need.

The next week, we added chain operations to our code. Score functions have been coded and added.

In the last week, we finished the high score table and tested our code in the remaining time.



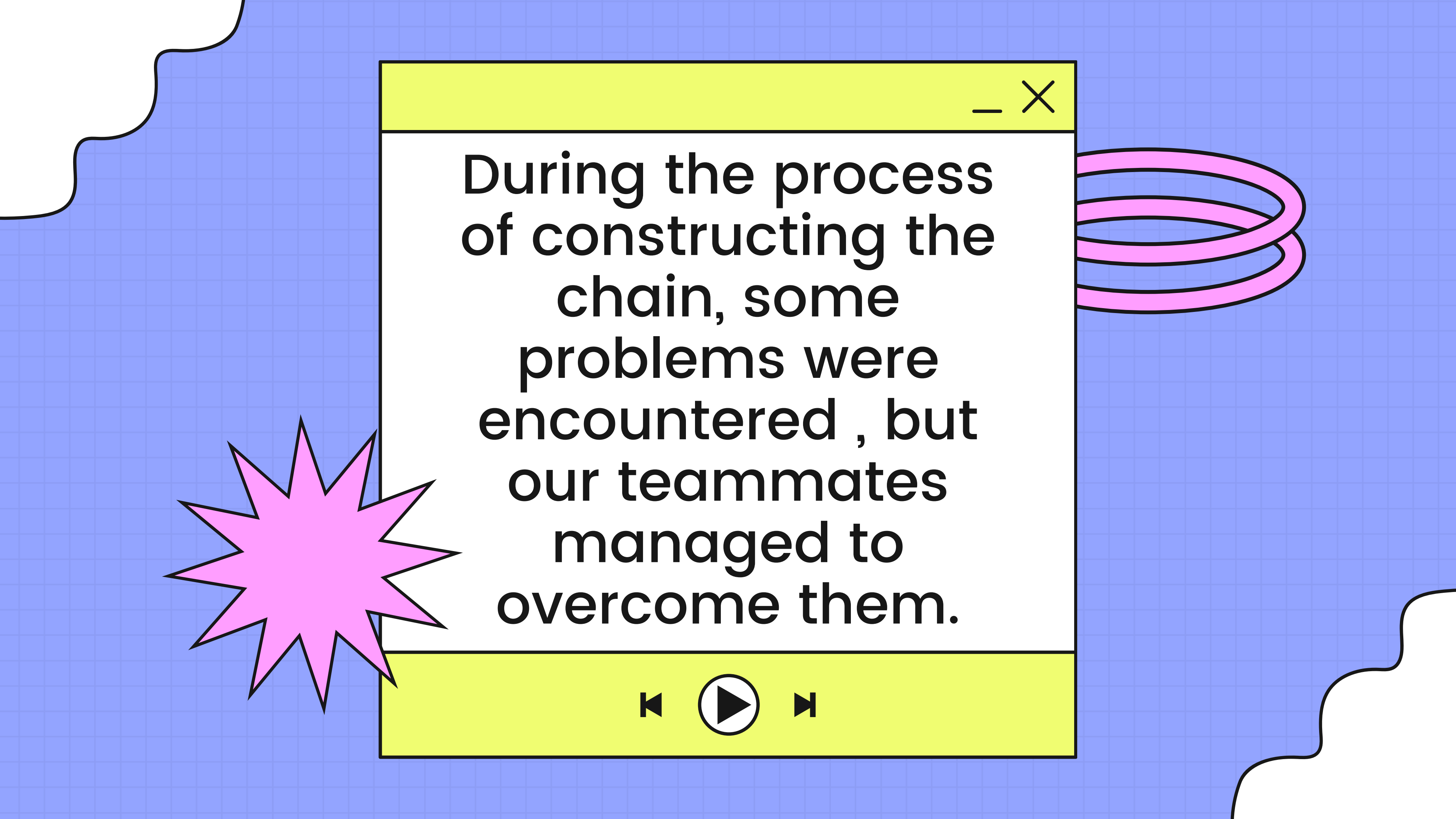


**All tasks given in the  
project were completed  
before the deadline.**



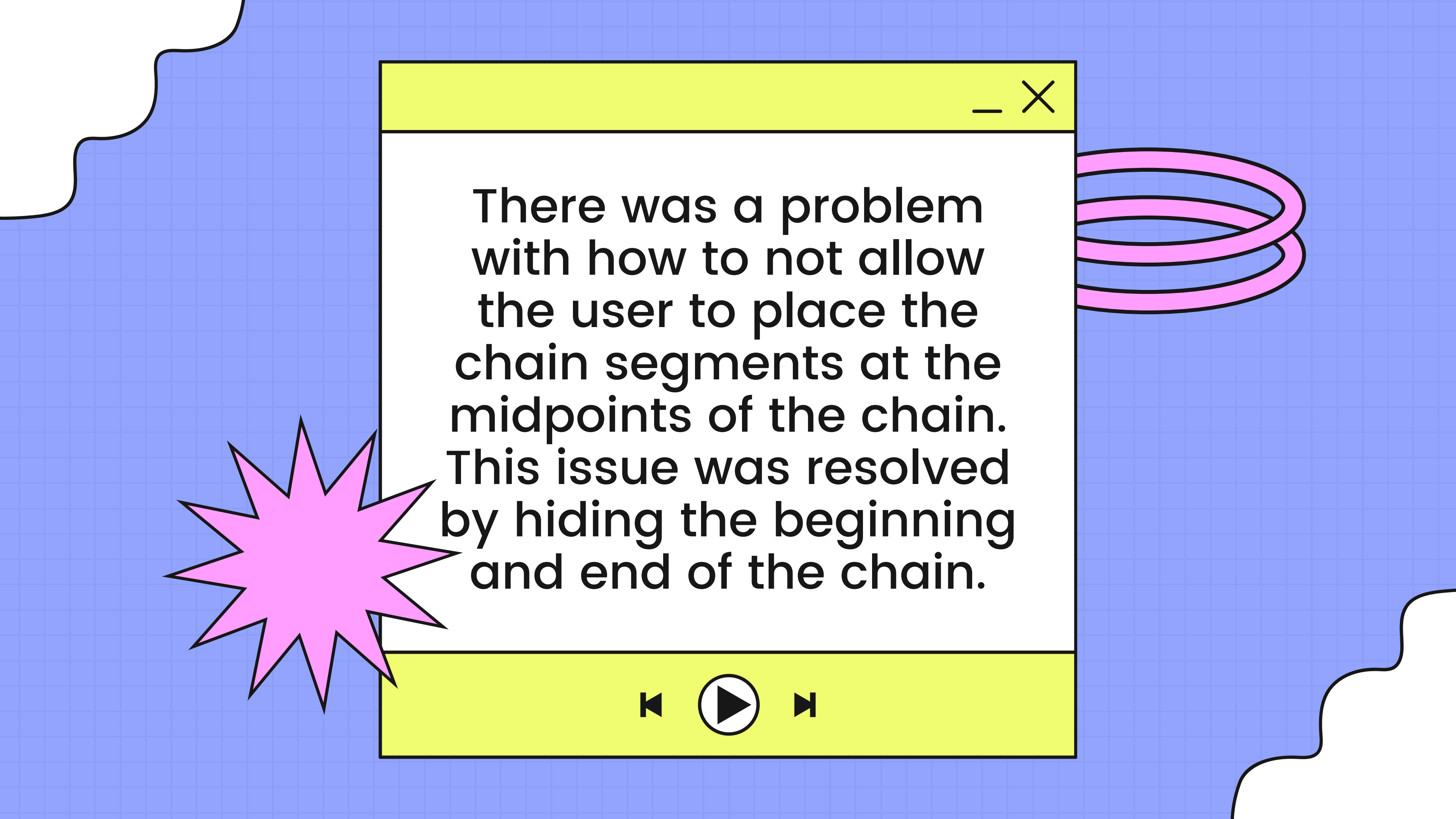
# Problems Encountered



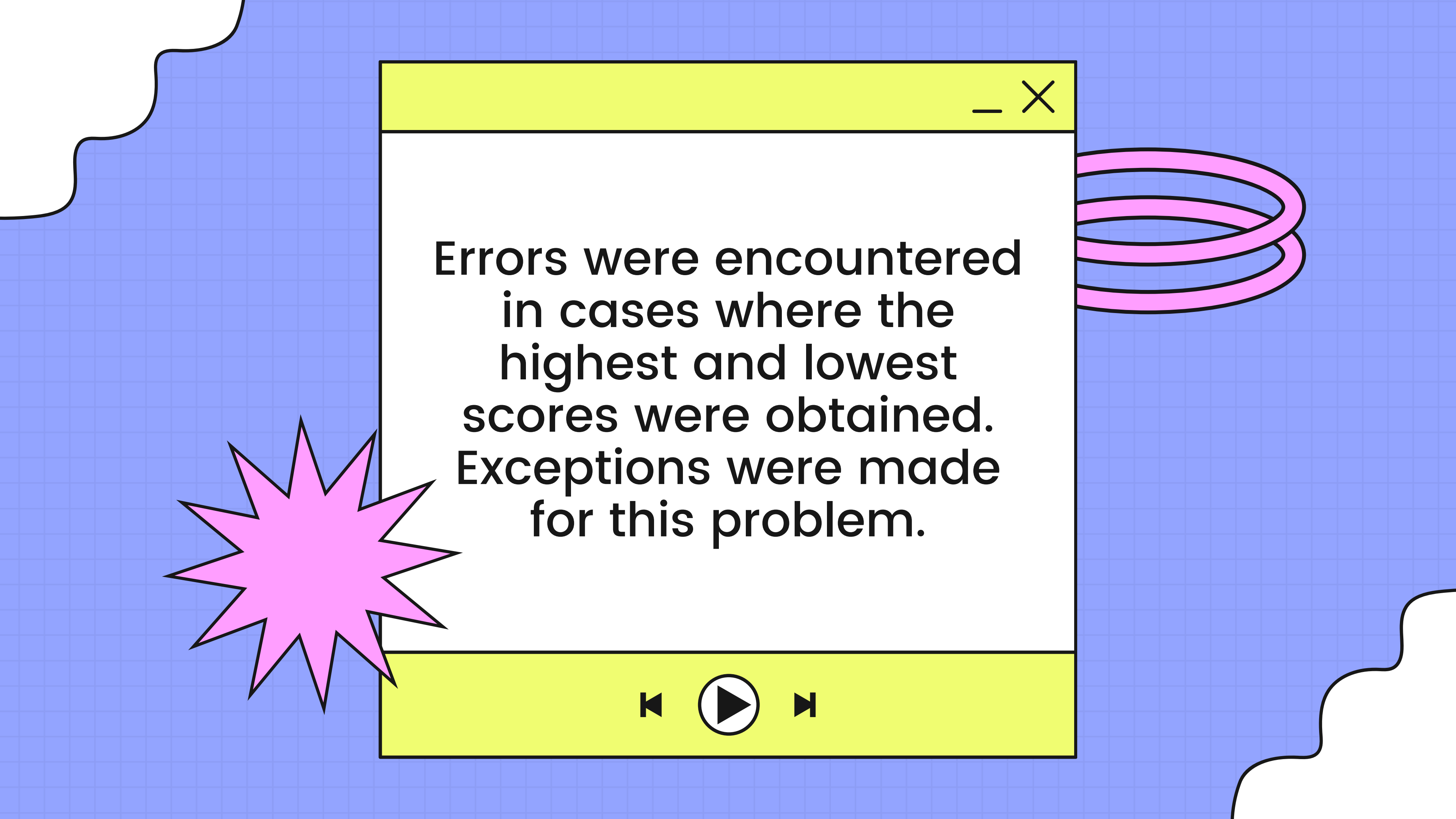


During the process  
of constructing the  
chain, some  
problems were  
encountered , but  
our teammates  
managed to  
overcome them.





There was a problem  
with how to not allow  
the user to place the  
chain segments at the  
midpoints of the chain.  
This issue was resolved  
by hiding the beginning  
and end of the chain.



Errors were encountered  
in cases where the  
highest and lowest  
scores were obtained.  
Exceptions were made  
for this problem.



# Screenshots

```
1 3 2 4 2 4 2 2 3 4 2 2 4 4 Board Seed : 5
                                Round : 1
4 3 4 2 1 2 4 1 2 2 2 3 4 3 Score : 64
                                -----
2 3 1 1 . . . 2 1 3 1 2 3 4 Table:
P                                     4+3+4+3+2+3+2+3
2+3+2 2 1 1 . . 3 3 1 3 1 2
      +
1 4 1+2+3 . . . 4 4 3 4 3 2
      +
3 2 4 4 2 1 1 4 4 4 3 2 2 4
      +
1 3 1 3 1 4 4 2 1 4 4 2 3 1

3 2 1 2 4 1 2 4 3 1 4 2 3 2

1 4 2 1 4 3 4 2 1 2 1 2 4 1

4 2 1 2 1 3 1 2 1 3 4 3 1 2
```

# Screenshots

```
3 3 3 1 2 2 4 3 3 3 2 4 1 2 4 3 Board Seed : 7
                                     Round : 0
1 3 4 1 3 1 4 3 3 3 2 3 2 3 2 3 Score : 0
                                     -----
4 3 1 3 2 4 4 3 1 4 2 2 3 3 1 4 Table:
3 1 3 1 2 4 4 4 2 4 2 2 4 4 1 3
      P
3 4 1 3+3+4+3 1 4 1 1 4 3 2 4 2
      +
2 2 4 2 2 1 4 1 2 4 2 3 2 1 3 2
2 4 1 2 3 4 4 4 1 2 2 4 3 2 2 4
2 4 3 2 4 4 1 1 2 1 2 4 4 4 2 3 - Game Over -
3 2 3 3 4 2 3 4 4 2 2 2 2 2 3 4 Error in chain
3 1 2 2 3 1 1 4 2 3 4 4 2 1 2 2 Difference between neighbor squares must be 1
                                     Name :
```

# Screenshots

| Name | Score |
|------|-------|
|------|-------|

|      |     |
|------|-----|
| AYŞE | 128 |
|------|-----|

|       |    |
|-------|----|
| AHMET | 50 |
|-------|----|

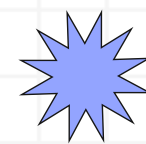
|     |   |
|-----|---|
| ALİ | 0 |
|-----|---|

Press enter to leave

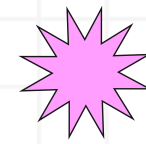




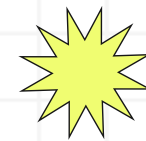
# Algorithms and Solution Strategies



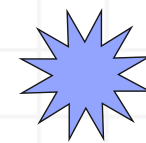
Chain inserting/removing



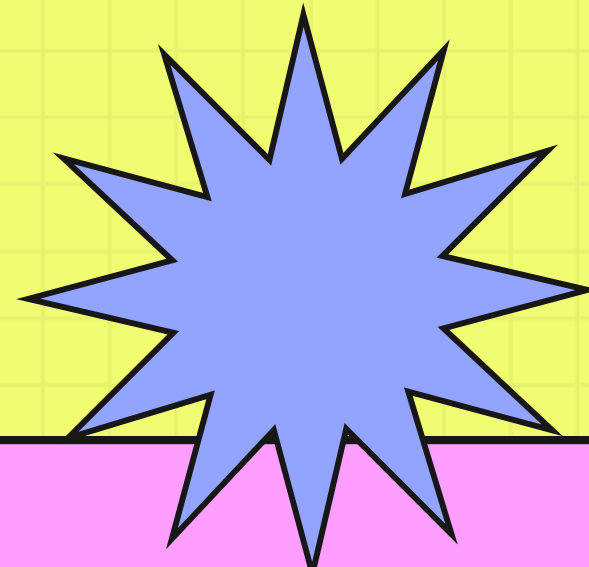
Score calculation



Chain construction mechanic.



Player movements



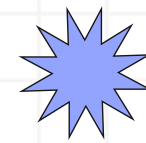
**AS A CONCLUSION, TOGETHER  
WITH OUR TEAMMATES, WE  
SUCCESSFULLY COMPLETED THE  
PROJECT BEFORE THE DEADLINE  
AND DELIVERED OUR PROJECT.**



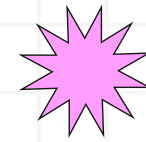
**QUESTIONS ?**



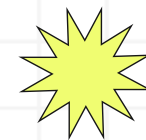
# References



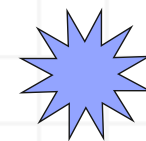
<https://docs.oracle.com/javase/8/docs/api/java/util/Scanner.html>



<https://docs.oracle.com/javase/8/docs/api/java/util/Random.html>



<https://docs.oracle.com/javase/8/docs/api/java/awt/event/KeyEvent.html>



<https://docs.oracle.com/javase/8/docs/api/java/awt/event/KeyListener.html>

**THANK YOU  
FOR YOUR  
PATIENCE**

