

The Magical Wheel

CS434: Internetworking Protocol

Lab 01: Socket Programming

I. Introduction

- Topic: The Magical Wheel
- Team members
 1. Vo Trung Thanh – 1751019
 2. Nguyen Nguyen Hoang Thi -1751040
- Techniques:
 1. IDE: IntelliJ IDEA 2020.2.3
 2. Library: javafx-sdk-11.0.2
 3. Server-side Programming Language: Java
 4. Visual Layout Tool: Scene Builder
 5. GUI Programming Language: FXML for defining the user interface of a JavaFX 2.0

II. Project Structure

1. Game story

Have you ever wanted to buy a vowel? Spin the Wheel with your friend with your own invention? Guess letters and watch them appear on the iconic puzzle board? It's MAGICAL...WHEEL - based on the popular game show, and now you can be a contestant!

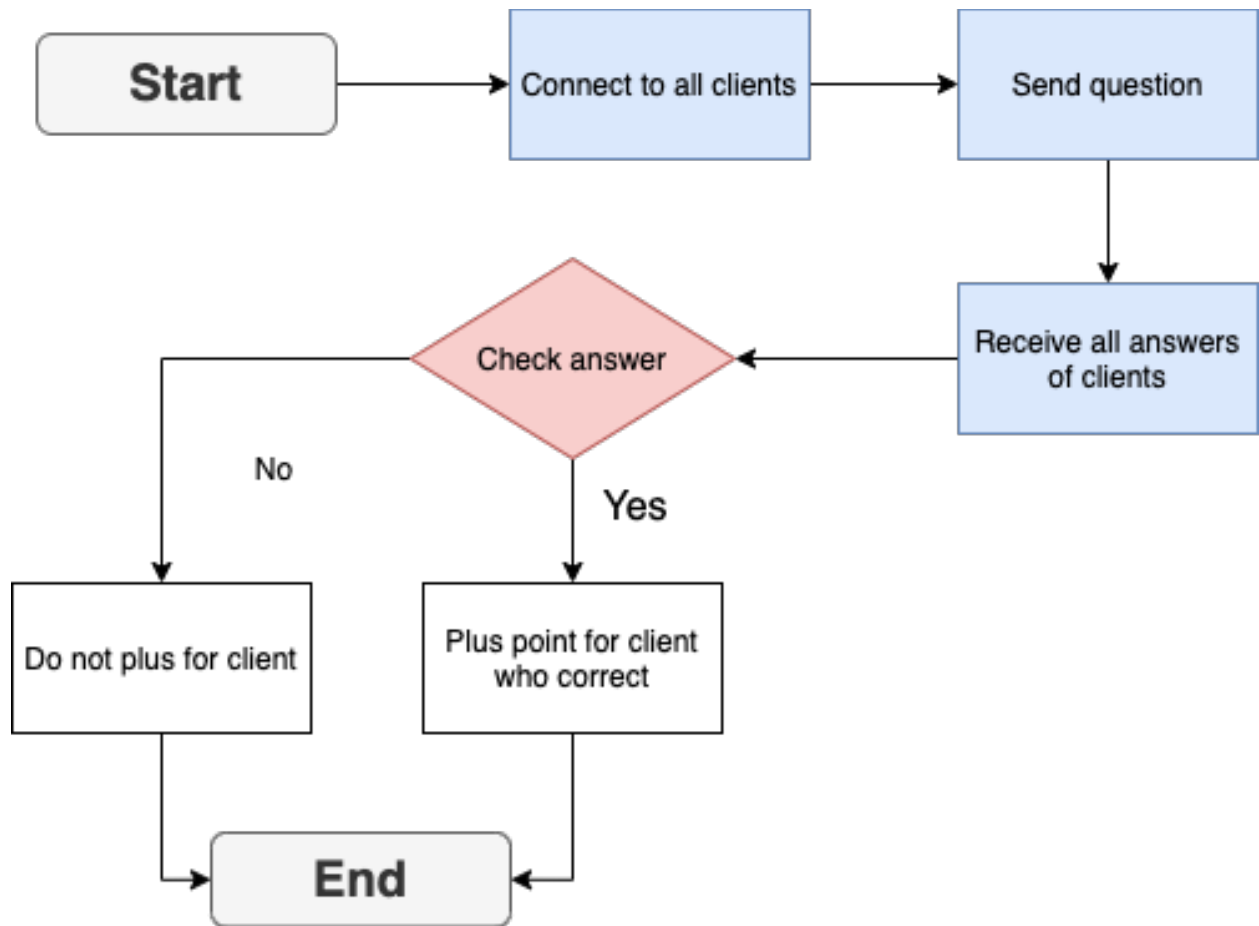
Spin the Wheel, solve new puzzles written by the show's producers, and win prizes.

Challenge your friends and family or play with millions of other players from around the world!

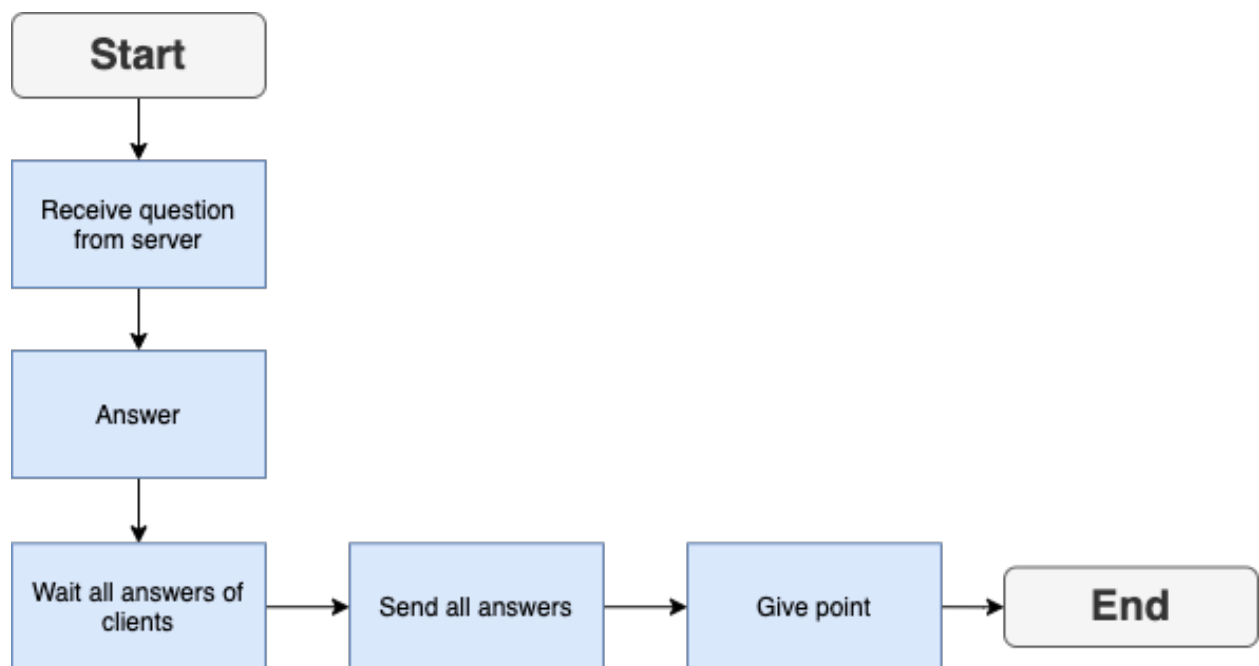
In The Magical Wheel, there has an user guide and it guides you on a full-filled trip around the world with new puzzles from the hit TV game show! Play with a few people that you know for a huge prize! The winner of these world puzzles will come out on the top of ranking.

Challenge yourself to brand new puzzles every day!!!

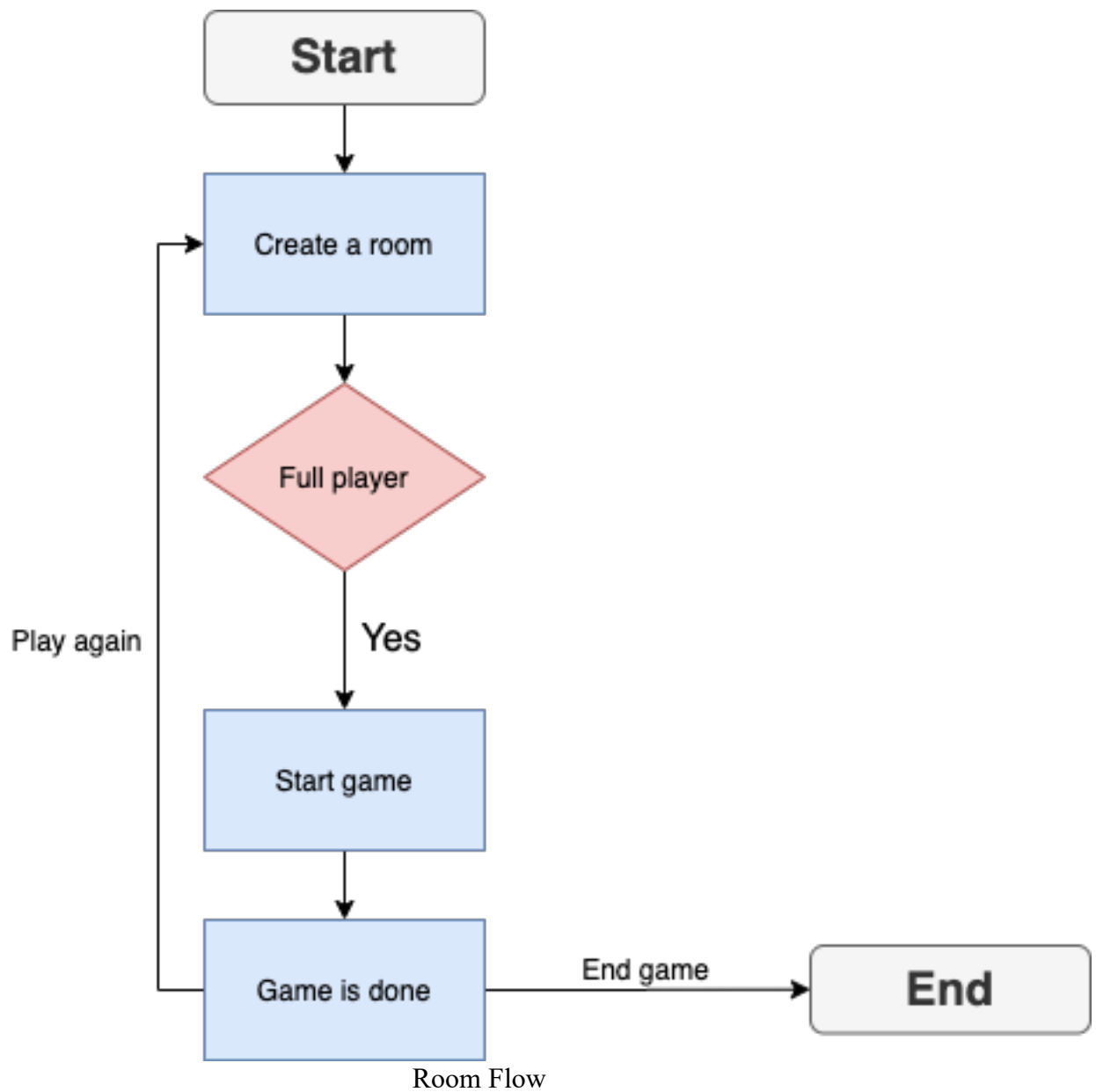
2. Game Controller



Game Flow of Server



Game Flow of Client



3. Packet structure

- From Server to Client
 - Display question to client:
 - Structure -> Question: <question>
- From Client to Server
 - Send name client to server: none structure, just send name of client

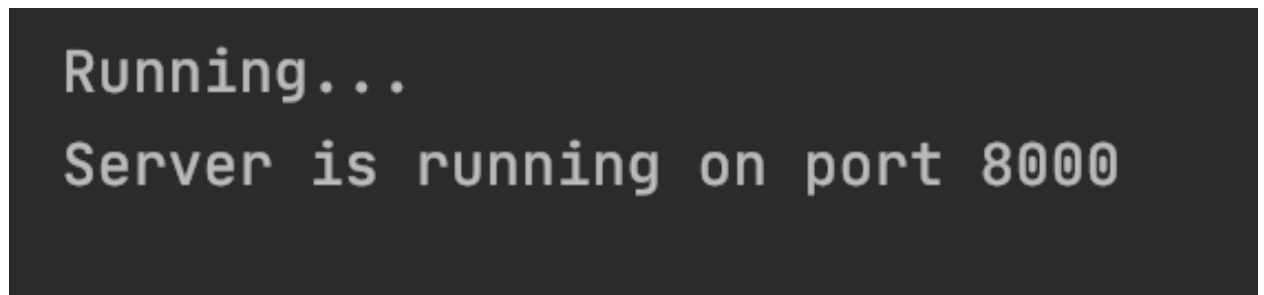
4. Features

1. Player Ranking

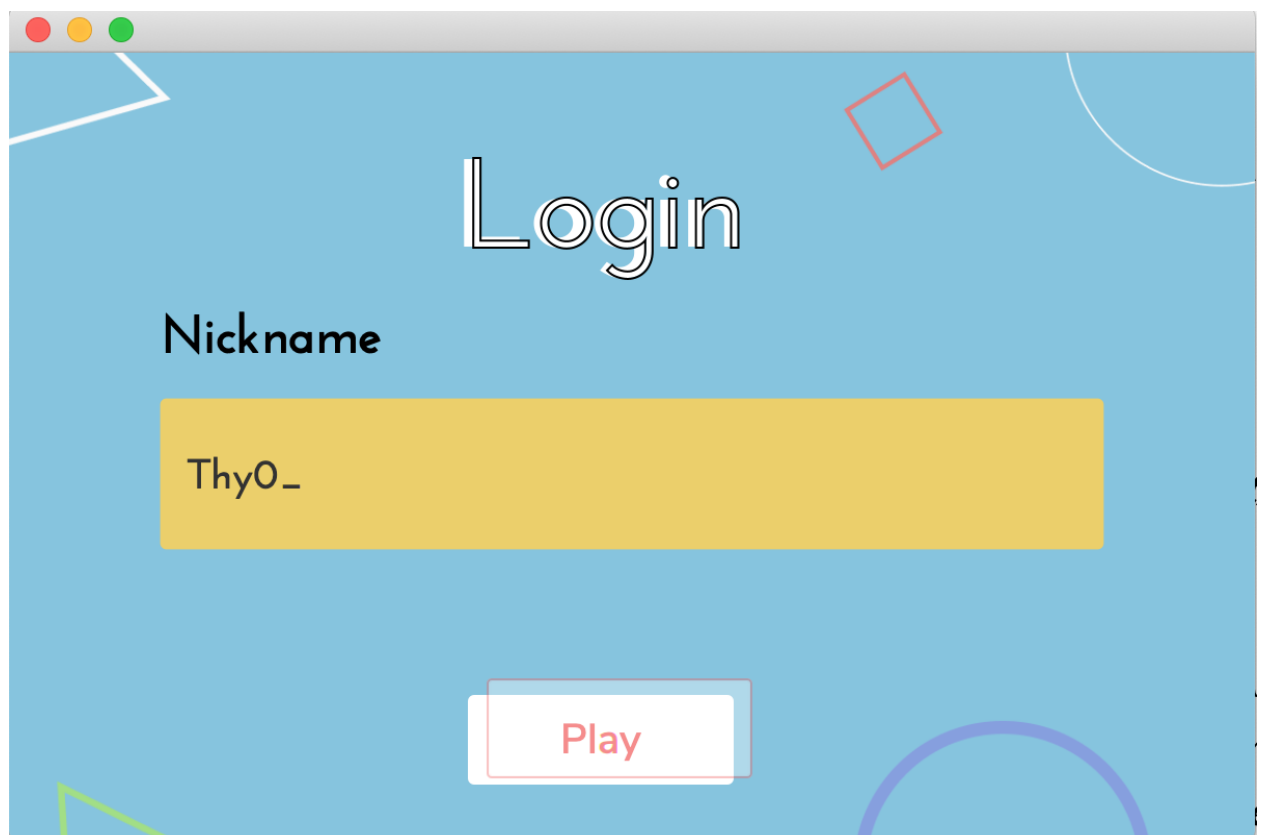
- A dashboard contains player scores.
- 2. Confirm Actions
 - Display all notifications from server to client.
- 3. Server-side display:
 - Data visualization concluding player ranking, player's name, login successfully or not, room waiting, ...

5. User guide

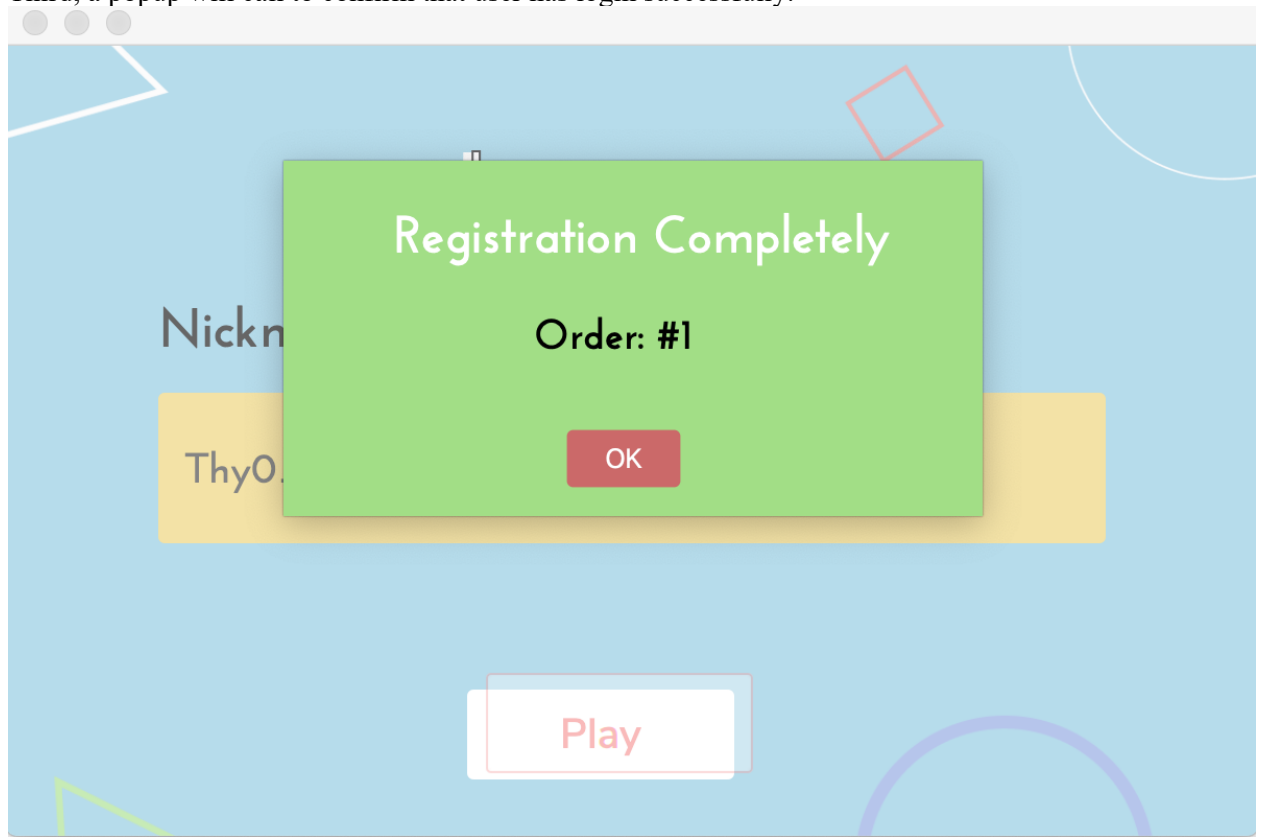
First, run Server.



Second, run main program to access Magical Wheel. Afterwards, there has 2 options to choose. If we would to play immediately, register nickname will move to next UI.



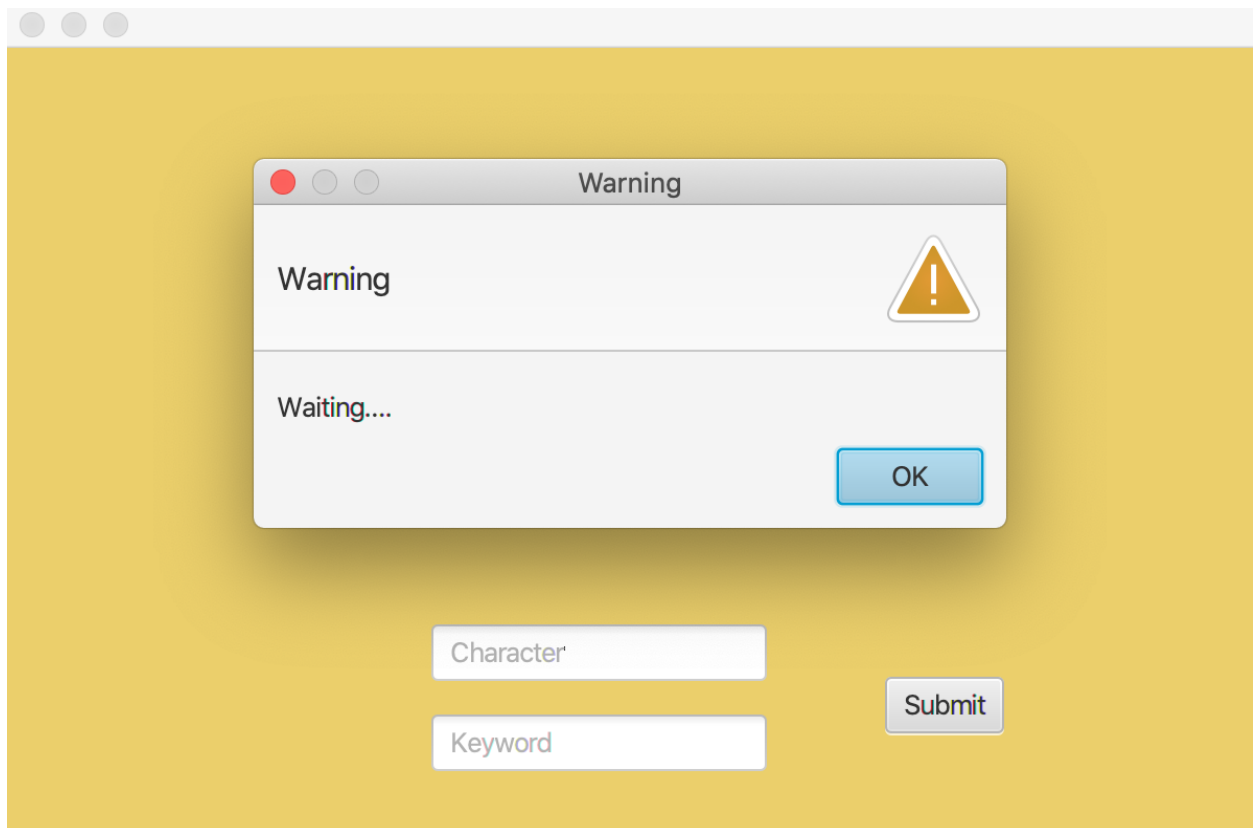
Third, a popup will call to confirm that user has login successfully.



In a server, a notification will receive a message through a socket.

```
Running...
Server is running on port 8000
Client Socket[addr=/127.0.0.1,port=51442,localport=8000]
Thy0_ is registered
Client Socket[addr=/127.0.0.1,port=51486,localport=8000]
Thanh1_ is registered
```


Waiting until a full around.




The question will show in a client UI and each player would submit a character to play a game. Following rules, if it is a correct answer, he/she gets a 1 point. Otherwise, next turns. Guessing now will gain 5 points. Reading a user guide to understand deeply.

How to play

Objective: Be the first to answer the question.



You can guess a single letter from the answer. If correct, you get 1 point and continue. Otherwise, it's the next player's turn.



A set is complete when the last player finishes their turn and move back to the first player. Each question has 5 sets.

Next

What is the easiest F1 track?

Thy0_

Keyword

Submit

What is the easiest F1 track?

Thy0_

M

Monza

Submit

```

Character of Thy0_ :M
Keyword of Thy0_ :Monza
Thy0_ -> has correct answer and score 6
Answer of question: Monza
Character of Th4nh_ :M
Keyword of Th4nh_ :Monze
Th4nh_ -> has correct answer and score 1
Th4nh_ -> has wrong answer 1
Answer of question: Monza

```

6. The accommodation requirement

Requirement	Yes/No
Register to join a game	Yes
Choose a nickname	Yes
Check a nickname is valid or not	Yes
Server announces “Register successfully”	Yes
The server chooses a question from database	Yes
Server do not announce players’ order	No
Each player answers the question roundly	Yes
Player have information of the number of players	Yes
The server announces the player in turn or not.	Yes
Answer the question	Yes
Answer wrong and a next turn	Yes
Countdown for each turn	No
Server starts another set	Yes

III. Conclusion

No.	Name	StudentID	Contribution (%)
1	Vo Trung Thanh	1751019	50
2	Nguyen Nguyen Hoang Thi	1751040	50

IV. Reference

1. <https://github.com/stanley-lapinski/Guessing-Game>