The User Manual of
Draw and Guess ver. Real-Time

Application Prog Using Java - CSCI 4963 - 01
Team Project

V 1.0.0

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Contents

0   TL;DR

In this document, we will briefly describe the functionality of the Draw and Guess real-time ver. and the basic GUI usage. It also provides potential causes of errors in different contexts and examples of typical inputs that generate errors.
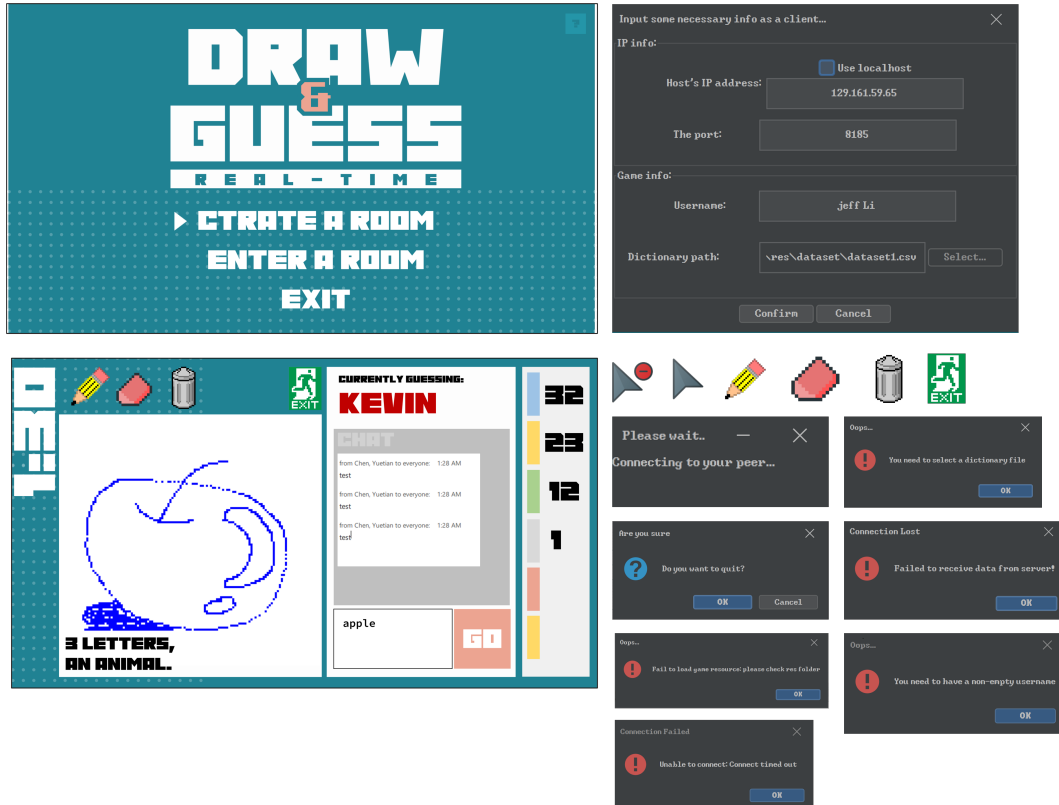

Figure 1: The main GUI design and art resource in the program is shown. The bottom right corner shows the main prompt/error window. The main GUI window containing the graph panel

1 Introduction

This program will run a Draw and Guess Game where users can either host or join a game. If users host a game, they need to select a guessing word dictionary file in CSV format and configures the network setting so that connection won't be block by the firewall. The game will be run based on the following rules:

A user can be in one of two states: Painter, and Guesser.

The game will automatically choose a word from the dictionary as the secret word.

Everyone in the game is able to send a text through the chat room, the guesser will guess the word through the chat room. The painter can also send texts but he/she should not send the secret word.

Only Painter will have access to the Draw board

Every round will have 90 seconds for players to draw and guess.

Everyone will turn turn to become a painter, the sequence depends on the time when the user joins server.

The user can earn the score from both drawing and guessing with following rules:
  For the painter, if everyone or nobody got the correct word, the painter will get no points. Otherwise, the painter will get the points equal to the number of guessers who guessed correctly. So if there is only one user who guessed correctly, and there are 6 people guessing, the painter will get 1 point.

  For the guesser, the first correct guess will have the points equal to the number of guessers minus one. For the second, the points are equal to the number of guessers minus two and so on.

With the introduction of GUI, the user can

- The start page of the application has three buttons that will lead the user to Create a Room, Enter a Room, and Exit.

- After the user click the Create Room/Enter a Room, there will be a window that appears, the user will need to input the IP, port, and username to Create/Enter a game. For Creating a Room, the user's IP address will be automatically filled by the user's IP. For the host, they will need to select a .csv file as the dictionary of that game.

- Once gets into the Game, the Game Board can be roughly divided into two areas, the left is the Draw Board and the right is the Chat Room.

- There is a start game button on the Game Board that is only shown to the host. Once the host clicked that button, the game will start and no more users can join.

- On the upper left of the Game Board, it will be shown the remaining time of this round.

- On top of the Draw Board is four buttons. From left to right, the first three buttons only painter has the access to it. Once the current painter clicks on the upper left, the painter will be able to draw on the board. The second button is and it will turn the pencil into an eraser. The third button is which will erase everything on the Draw Board. The last button is , once the user clicked it, they will quit the game.

- On the lower left corner of the Draw board, for guessers, there will be a hint for the current secret word. For the painter, it's going to be the secret word.

- The normal cursor of this App is .If the user is a guesser, when the cursor is on the drawing board, it will be , to show the user they don't have access to it.

- The upper part of the chat room will show the name of the current painter.

1.1   Compatibility

This program requires **Java 16** or above.

1.2   Project structure

In this structure, we will introduce the location of the key files in this project and their specific functions.

1.2.1   User Manual

It is the file you are reading, locating at ./manuals
It contains detailed descriptions of all application features, inputs and outputs, formats of files, possible error messages and their meaning, and any other information which might be of interest to an end user.

1.2.2   Source Code

It is located at src/edu/rpi/cs/csci4963/u22/cheny63/project/drawAndGuess. See the java doc of this project for more information.

1.2.3   External Library

It is located at ./lib
It contains all tools including FlatLaf for the font.

1.2.4   Default setting

It is located at the root.
Config.cfg stored the default config for the program. **Please do not manually modify this file.**

1.2.5   Java doc

It is located at ./docs
It contains documents for all classes and methods.

1.2.6   readme.txt

It is located at ./manuals
It contains how to use the script files and contains a brief description of the development environment.

1.2.7   Testing Manual

It is located at ./manuals
It contains the testing plan, testing strategy, testing scenario, and the description
of a comprehensive set of test cases.

1.2.8   Icons

It is located at ./res/gui.
Feel free to make modifications here, the program will auto-scale the new icon
and fit in the program. Look forward to seeing a better icon option. :-)

2 Usage

In this section, we will describe how to compile and run the program. They are done by automatic scripting and by manually compiling and then using the console.

2.1 Use script

Click the console script file corresponding to your system and the program will automatically compile and execute the commands that run the GUI.
The expected output should be:

Figure 2: This is the start page you will see after using the script, which let the user to create/join/exit the game

2.2 Manually compile from source code

You can also compile from source code and test the program with custom data. The syntax should be

```
javac -cp .\lib\flatlaf-2.4.jar -sourcepath src
   src/edu/rpi/cs/csci4963/u22/cheny63/project/drawAndGuess/Launcher.java
   -d bin
```

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```
java -classpath .\bin;.\lib\flatlaf-2.4.jar
    edu.rpi.cs.csci4963.u22.cheny63.project.drawAndGuess.Launcher
```

3   Error case

In this section, you will see some major frequently happened errors you may encounter in this GUI program.
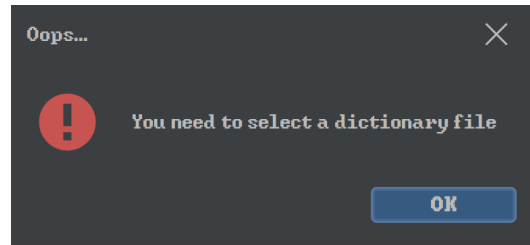

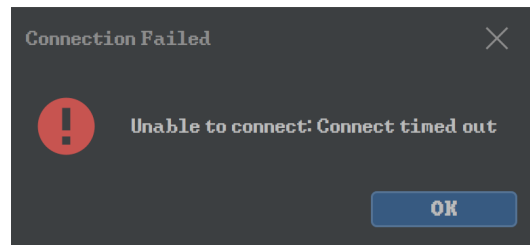Figure 3: This error occurs when you trying to creat a room without selecting a file
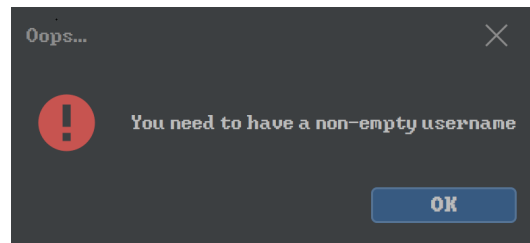

Figure 4: This error occurs when cannot connect to the host

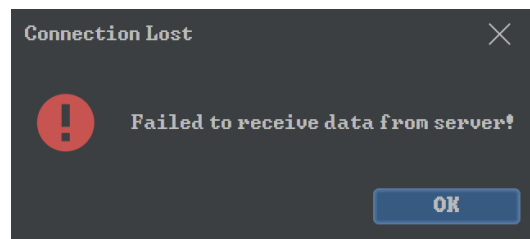Figure 5: This error occurs when the user trying to create/join a game without having a username

Figure 6: This error occurs when the host quit the game
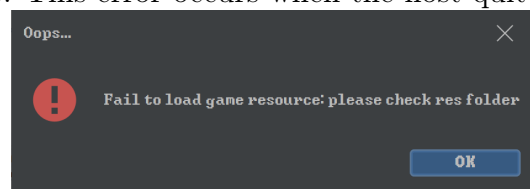

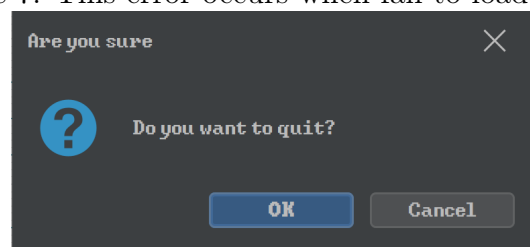Figure 7: This error occurs when fail to load the file
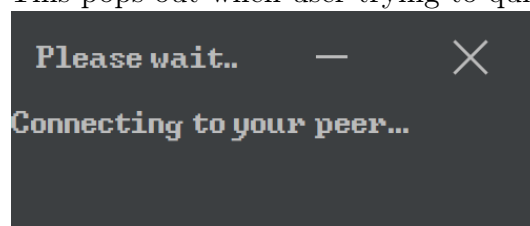

Figure 8: This pops out when user trying to quit the game

Figure 9: This pops out when user waiting to connect with the host