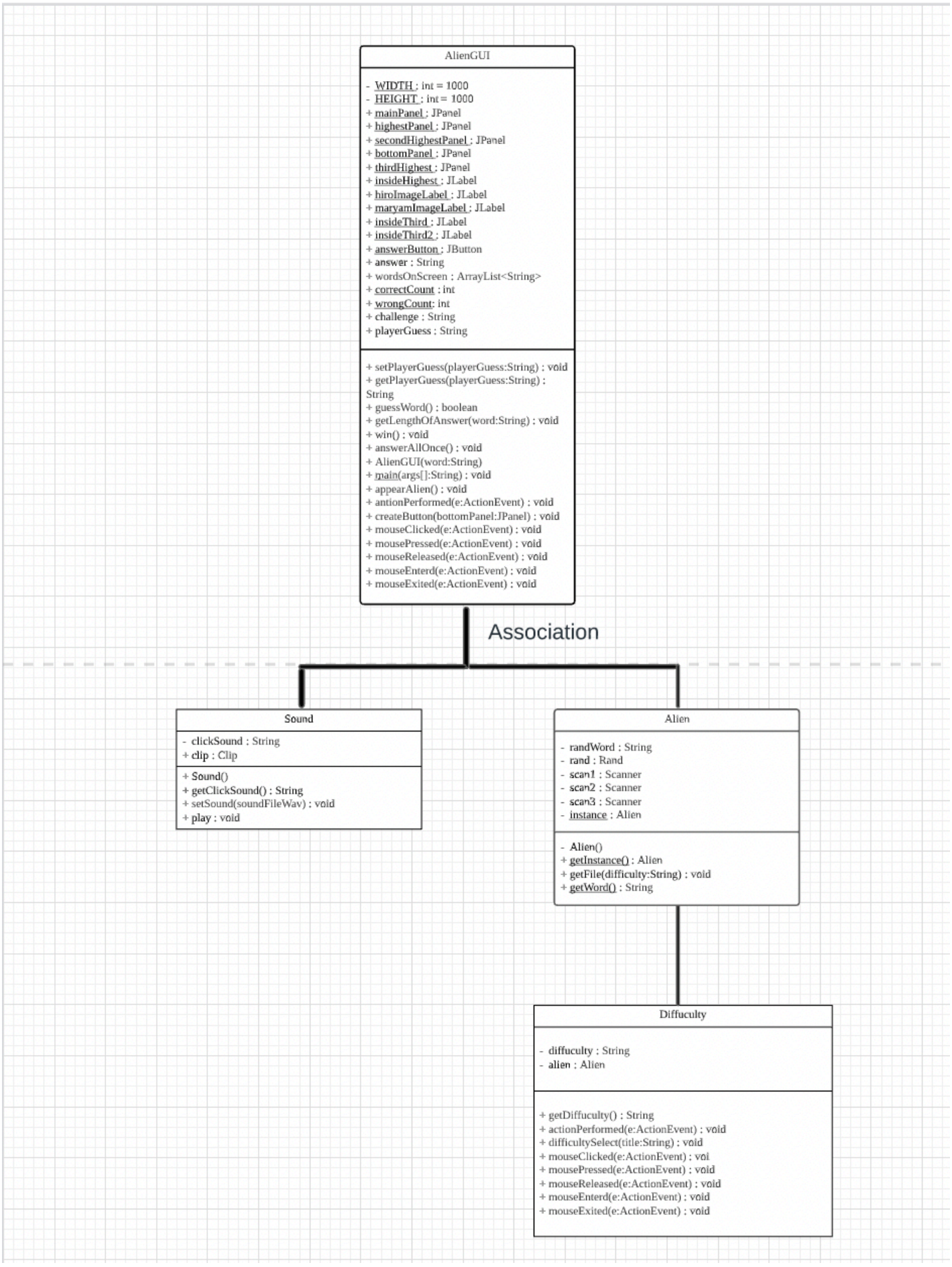
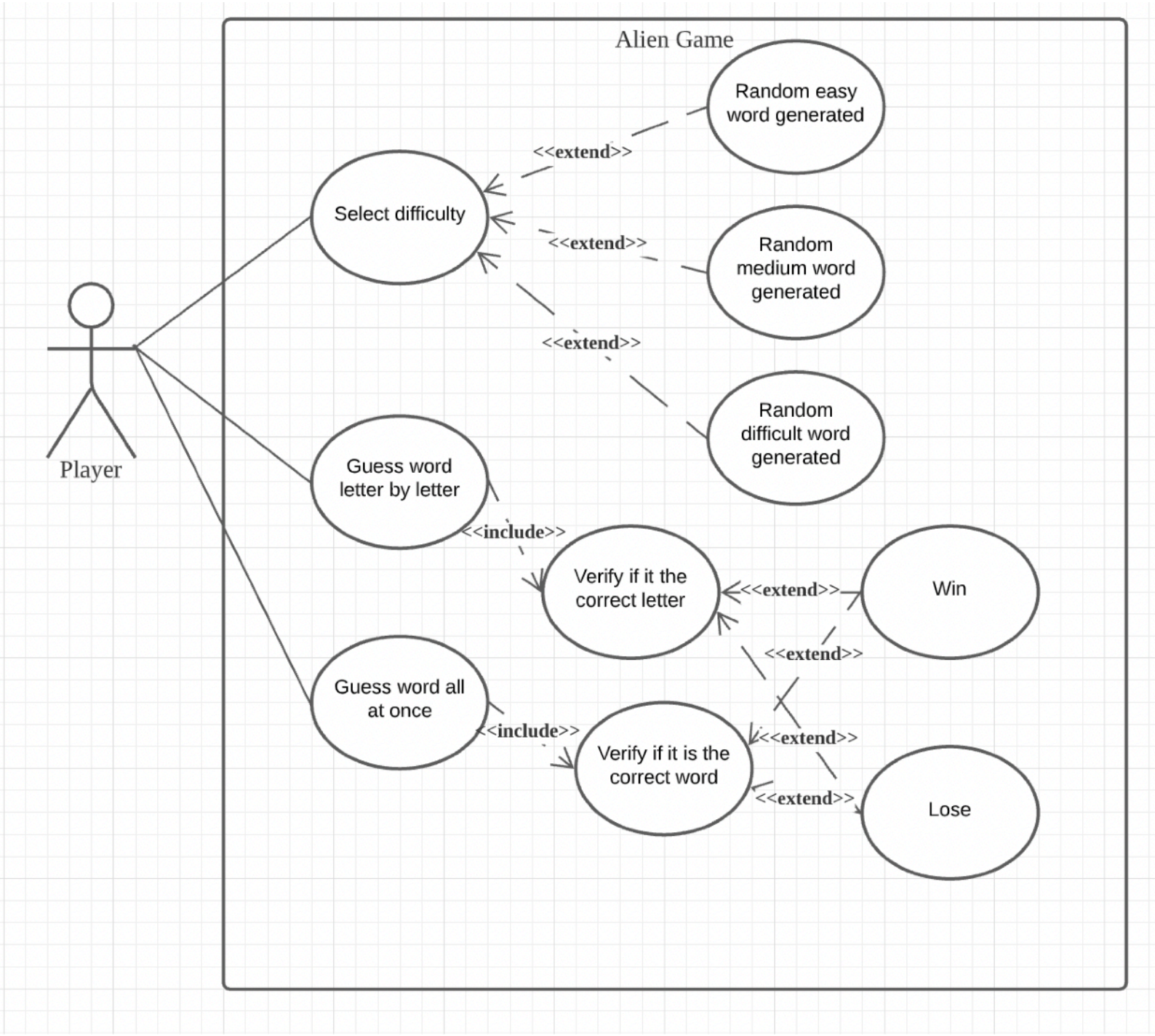
Report

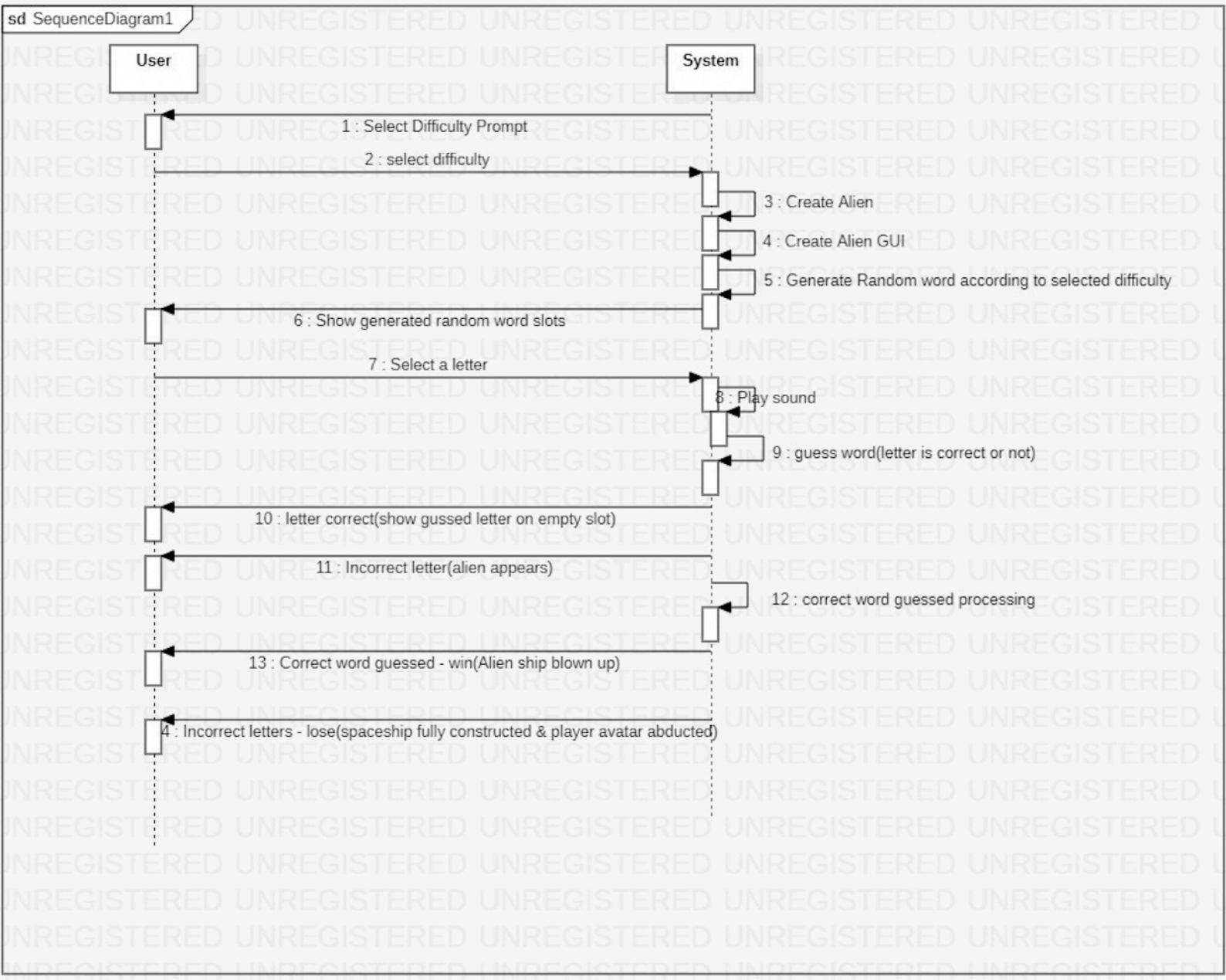
UML class diagram



Use Case diagram



Sequence diagram



Code Explanation

Alien.java

This class reads data files of words. It is implemented Singleton to ensure that a class has only one instance. It prevents from reading or loading data files many times. Only once is enough to make the program run successfully.

AlienGUI.java

This class is responsible for main game GUI that is displayed. The main game board is consist of 5 panels, mainPanel, highestPanel, secondHighestPanel, bottomPanel, thirdHighest. And then we put buttons and labels to those panel to make it easier to manage or code. answerButton is a button that you can guess word, not letter by letter. Therefor if you figured out the answer, you can tap the button and answer all at once. We used several images to display the process of Alien's spaceship. If you fail guessing letter 6 times, you lose.

Difficulty.java

It is responsible for the first GUI that you can select the difficulty level. Implementing ActionListener and MouseListener, it can respond to the player, and save the level.

Sound.java

This class is responsible for loading the sound file. We can load the wav file using setSound method. Every time you tap the alphabet buttons, it makes a sound.

Compiling and Running

The main IDE we used

intelliJ, eclipse

For IntelliJ and eclipse user

Open the AlienGame and push the arrow button to run.

For Command Prompt

1. Open up the command prompt and then point to the correct folder.
2. Copy and Paste the following Line into command prompt :

   javac src/*.java

3. After compile finish enter:

   java AlienGUI

The game should start.

Rule of this game

At first you need to select the difficulty level. Easy mode will display 4 letters word, medium mode displays 8 letters word, difficult mode displays 12 letters word. You can guess the word letter by letter but if you get the correct word, you can try answer all at once. If your answer is correct, you win, but if your answer is not correct, you lose. So be careful when you use that button. When you guess letter by letter, you can try up to 5 times, if you get it wrong 6 times, you lose the game. And Maryam will be proven by Aliens and Hiro will get eaten and spaceship will get constructed. The sound effect will be on every time you tap the alphabet buttons.

Task Distribution

Hiroaki Ueda

Creating main game GUI, Alien Singleton implementation, report(Use-case, class diagram, class explanation)

MARYAM MOHSEN AWADH AL-JAAIDI

Selecting Difficulty level GUI, creating answer all at once button, Sound class, creating alphabet button, report(Sequence diagram, compiling and running)