

Task 1. Requirements

1. 1. Use Cases:

UC 1 Start Game

Precondition: there is no precondition.

Postcondition: the game menu is shown.

Main scenario

- 1- Gamer: Runs the hangman's program starting the game.
- 2- System: Shows the menu with the option with two options: Play the game and Quit the game.
- 3- Gamer: Selects the Play game option.
- 4- System: Selects a random capital of capitals.txt and starts the game.

Alternative scenarios

- 3.a - Gamer: Selects the Quit game option.
- 3.a - System: Quits the game with a message: "See you soon!"
- 3.b - Gamer: Invalid menu choice.
- 3.b - System: The system presents an error message: "ERROR! The option does not exist."

UC 2 Play Game

Precondition: the game is running main menu screen.

Postcondition: the game is over and the main menu screen reopens.

Main scenario

- 1- Gamer: Selects the Play game option.
- 2- System: Prints underscores.
- 3- Gamer: Attempts to guess a letter.
- 4- System: Analyse if the letter is contained in the capital. The letter is correct, then it prints the letter in the position that corresponds.

Repeat from 3.

5- System: Prints the whole word, and a message "You win!!!".

Alternative scenarios

4.a- System: Analyse if the letter is contained in the capital. The letter is wrong, then it prints a part of the hangman.

Go to 3.

5.a- System: Prints the whole hangman, and a message "You lose!!!".

UC 3 Quit Game

Precondition: The game is running.

Postcondition: The game is terminated.

Main scenario

1- Gamer: Select the option Quit the game

2- System: Sends a message "Are you sure you want to quit?" and the system opens a new menu that asks for confirmation.

3- Gamer: Selects Yeah.

4- System: Sends a message "See you soon!" and the game terminates.

Alternative scenarios

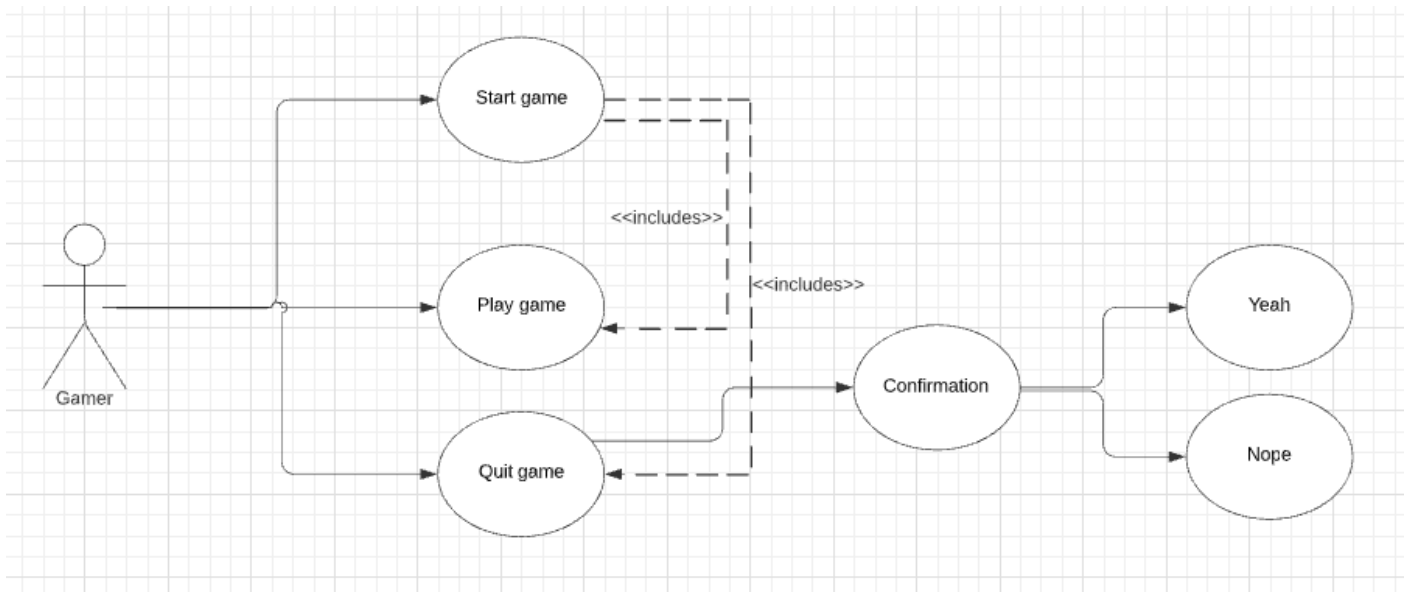
3.1. Gamer: Selects Nope.

1. System: Sends a message "So lets play!!!" and shows the main menu again.

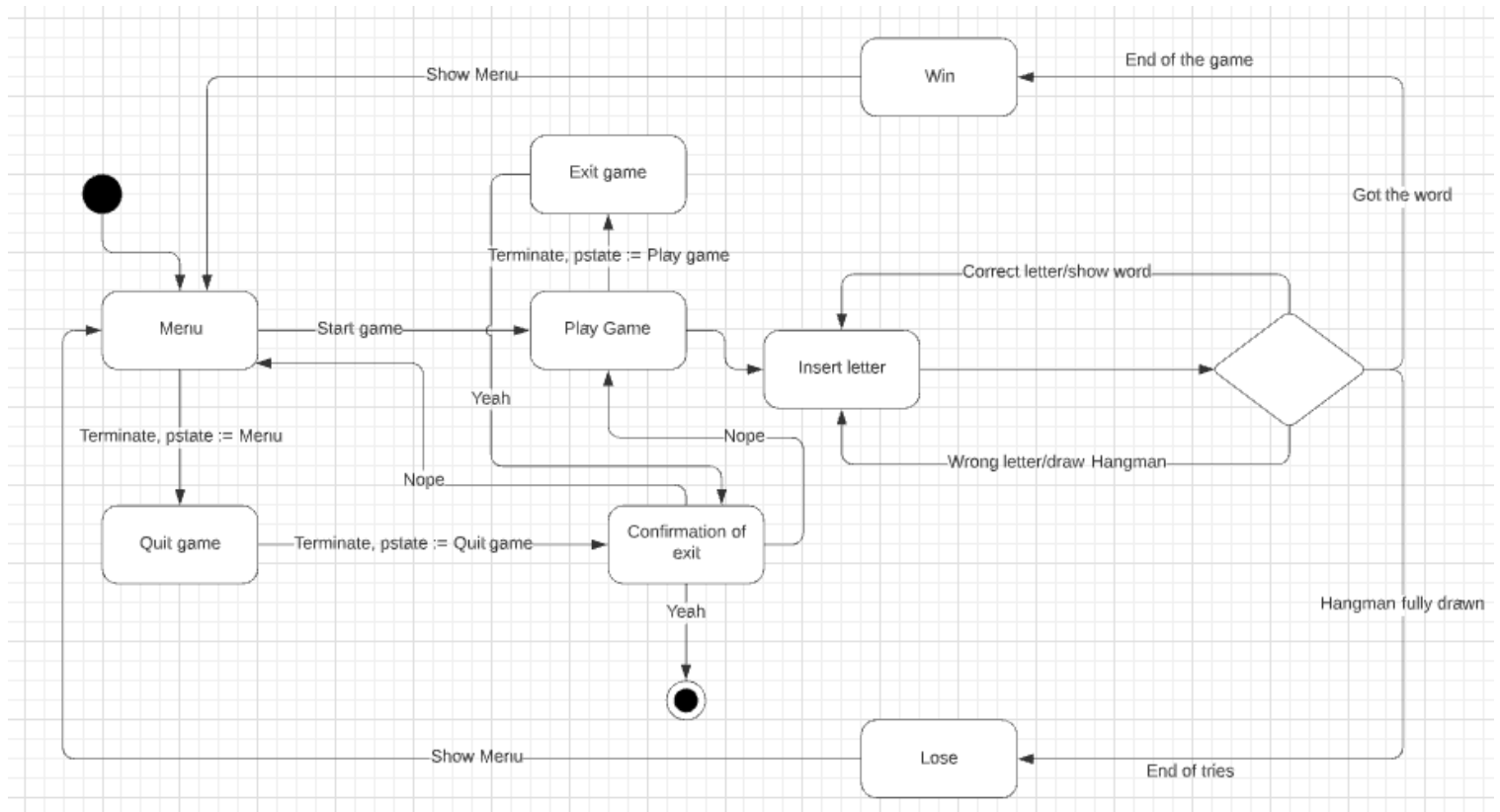
3.2. Gamer: Selects other option that does not exist.

1. System: Sends a message of error "ERROR! The option does not exist" and returns to the menu of confirmation.

1.2. Use Case Diagram:



Task 2. State Machine:



Task 3. Code:

Code is already updated as .java in Program/Code/src.

Task 4. Class diagram: