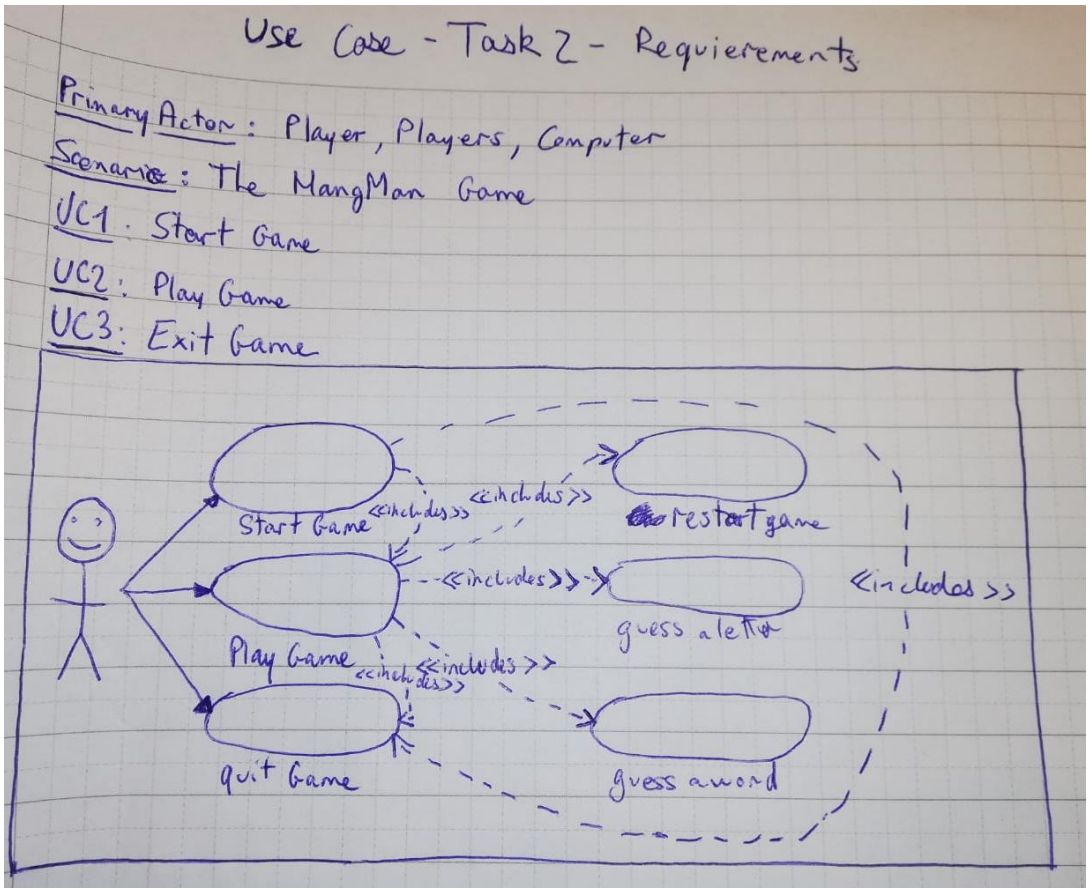
Use Case, State Machine, Class Diagram

Task 1 – Time Log

Task to Do	Time Estimated (min)	Time Taken (min)
Create Class Diagram	15	20
Write Fully Dressed Use Case	30	40
Create Use Case Diagram	15	15
Create State Machine	30	60
Implement Code	60	90

Task 2 – Requirement – Use Case diagram



Task 2.2 – Fully Dressed Use Case

Precondition: The player clicks on the play button

Postcondition: Game is reset, and player plays again.

Main Scenario:

1. Starts when the player wants to play.
2. The system generates the secret word.
3. The player guesses a letter.
4. The system checks if the letter is in the secret word and update the screen with the result.

Repeat from step 3 until the player has found the secret word.

5. User selects between playing again or exit the game.
6. The system runs the program according to the player choice.

Alternative Scenario:

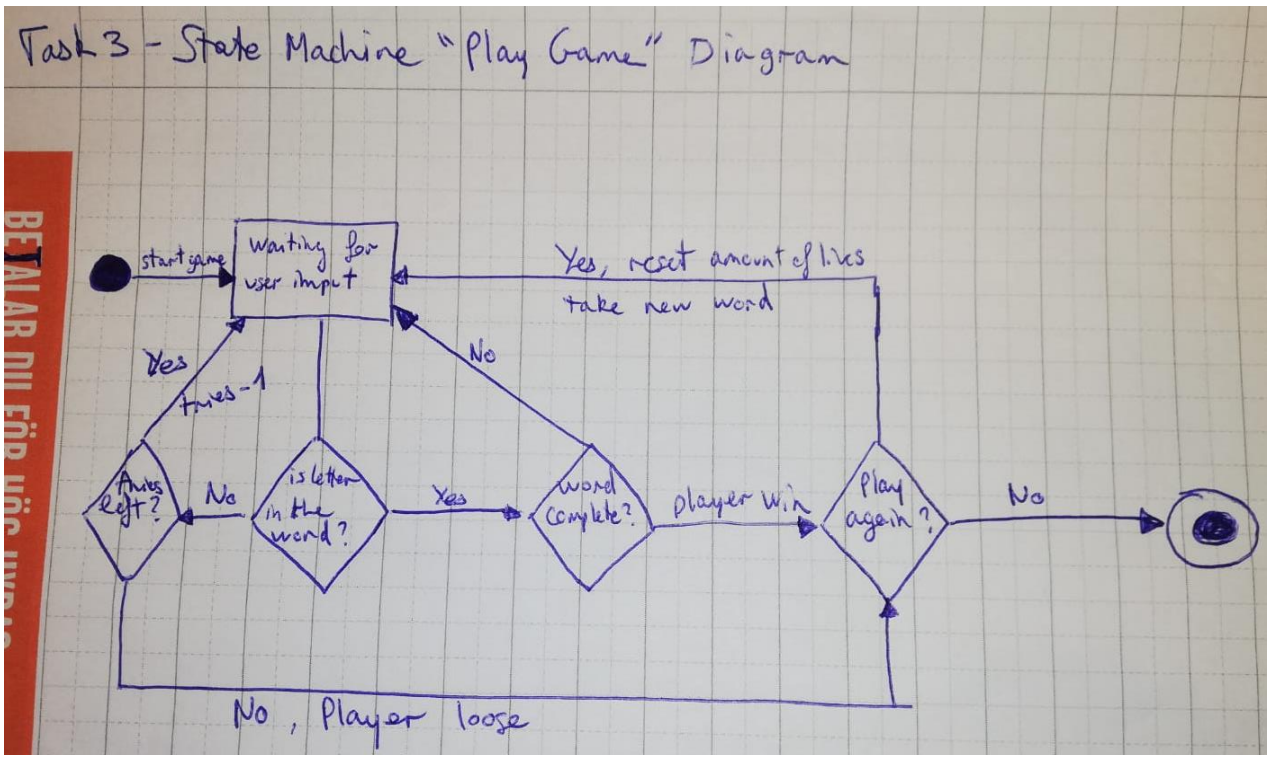
3.1 The player chooses a wrong letter.

1. The system reduces by 1 the amount of tries left and Go to 3.

5.1 The player makes the choice to exit the game.

1. The system exit the game (see UC3).

Task 3 – State Machine of "Play Game".



Task 4 – Modelling Structure

Hangman
- **AllTheWords**: ArrayList<String> - **WrongLetterList**: ArrayList<String> - **Path**: String - **DataBase**: File - **Wordsize**: int - **count**: int - **TheWord**: String - **WordArray**: String[] - **UnderScoreA**: String[] - **HMImages**: Image[] - **Alphabet**: List<String>
+ **getrandomWord**(): void + **getWordArray**(): String[] + **getCount**(): int + **createUnderScoreArray**(length: int): String[] + **getStringRepresentation**(UnderScoreArray: String[]): String + **isLetterinWord**(guess: String, pos: int, word: String[]): Boolean + **getWordSize**(): int + **getUnderscoreArray**(): String[] + **getWord**(): String + **isEqual**(): Boolean + **getWrongLetter**(): String + **changeUnderscoreArray**(pos: int, change: String): void + **main**(args: String[]): void + **start**(primaryStage: Stage): void - **CreateImages**(): void - **getImage**(pos: int): Image - **getAllTheWord**(file: File): void - **changeWrongLetters**(WLetter: String): void - **createWrongLetterLists**(): void