

# **a-MAZE-ing**

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Maze group project: Amazeing  
Interactive programming  
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## **Description**

The Maze “a-MAZE-ing” is a single-user game, controlled by mouse and keyboard. The player can choose a preferred character and also set a level. In the game the user needs to find the keys to unlock a door. On the way the user needs to eat heart items which gives the player back some life points. While moving the user loses life points. On its way to the door, or keys the user might encounter ghosts which it can fight. After entering the door the user has to unlock it by sliding the sliders to a set given number. The number is displayed on the screen.

A gameplay through the ‘easy’ level can be found in the submitted file  
(see: anAMAZEingvideo.mov)

## **Functionalities**

### **Character Selection**

- Users can choose a character. Chosen character will be displayed big on the screen.

### **Level Selection**

- The user can choose a player character by mouse click on the character.
- sets different amounts of enemies depending on level

#### **Easy Level**

- hearts do not disappear when collecting them. This allows the user to retake paths more easily.

## **Gameplay**

### **Maze play**

- Players can move in a grid in 2-dimensions.
- Random enemy spawning by initializing game
- Random heart items spawning by initializing game
- Every movement subtracts energy of the user
- Player can encounter an enemy (ghosts) which it can fight by pressing the spacebar. An enemy encounter costs the player life.

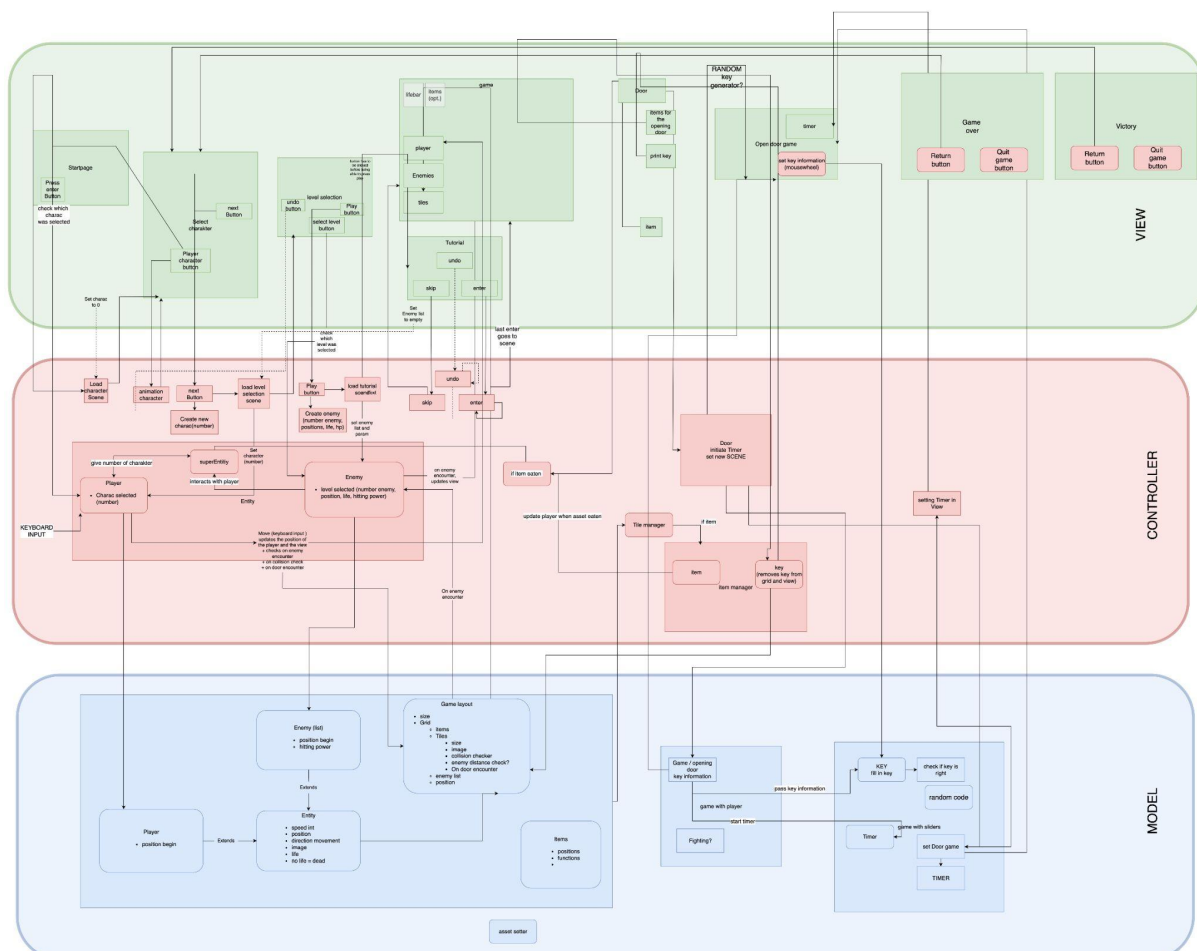
- Player can absorb extra life (hearts) to increase his life.
- Players can absorb a key to open the door.
- If the player runs out of life, the game is lost.

## Unlocking the door play

- A timer starts when user starts interacting with the door screen
- A slide has to be set to a given number. Number is displayed on the screen.
- When the numbers are set before the timer expires, the game is won.
- In case the timer runs out the game is lost.

## Project Management Planning

To have a better understanding of our project we created a MVC overview which helped us to understand the functions and communications between classes we need to implement. Eventually we were not able to strictly follow or implement this detailed overview mainly due to time constraints within our project.



## **Collaboration**

From the beginning on the group had good communication. During programming the group realized that it is difficult to work with each other's code. We started using GitHub for collaborate on the source code. We thought about how to divide tasks and decided to go against horizontal but rather vertical division of MVC implementation. This was in favor of the group. We all worked on the code but there were still responsibilities made.

- Noémie: visual representation
- Lars: Communication between classes
- Liselotte: game logic and functionality

The group worked well together and continuously helped each other out and whenever one of the members could not implement a working solution the others were there to help.

## **Known Bugs**

### **aMAZEing.V1**

- (as of today 26.10.2022) we did not find any bugs.
- In the game we have constraints which have no bugs such as that part of the logic is randomized by definition. Which means that sometimes on especially on the most difficult level you can not actually win the game if the live enemies are spawned unfortunately.

