Requirements and Analysis Document for 0x2EE

Grupp 1
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date (Yes please)
version (3.8.1 MVN)

1 Introduktion
First draft

0x2EE is inspired by a game created by Sean Cooper named Boxhead[1] where the goal was to acquire the largest score, which is done by killing zombies, before the player dies by damage taken from them.

The goal of the application of 0x2EE is a pastime amusement game while the stakeholders in the group's project are people who want to pass the time with a nostalgic game and those who want to see how object-oriented games are made through analysis and sprint documentation.

The group's game differs in multiple factors from its inspiration such as more implementation as in a shop where the player's weapon and armor can be upgraded, different artstyle and different enemies. The goal of the game is still the same as the original, to acquire the largest score possible before dying.

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(Give some background and explain the purpose of this application. Describe the functionality of the application. Describe the stakeholders of the project, highlight who will benefit from/use this particular application.)

1.1 Definitions, acronyms, and abbreviations

Create a word list to avoid confusion and give a definition of every abbreviation you use in the document.

- Boxhead:
    - a game created by Sean Cooper [1] where the player tries to acquire

- the largest amount of points before dying.
  - Score:
    - The measurement of how many enemies the player has destroyed.
  - Highscore:
    - The highest score scored from a game.
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2 Requirements

2.1 User Stories

User stories have been implemented through Trello and are as following:

PLAYER MOVEMENT

Use the template from the course website and list all user stories here. It is fine to have them in a spreadsheet (or other applications, such as Trello) at first, but they must end up here as well.
   These user stories should describe what the user will be able to do. Write the user stories in the language of the customer, and give them a unique ID. List the user stories in order of priority.
   You need to annotate an user story whether or not it is implemented. We need to know which user stories are implemented, such that we can check this during the oral presentation.

USER STORY MALL
User story

Story Identifier: <id>
Story Name: <short name>

Description

As a <role>, I need <requirement or feature> so that <goal / value / reason>.

(check INVEST guidance: https://en.wikipedia.org/wiki/INVEST_(mnemonic))

Confirmation

List all acceptance criteria; you should be able to test/confirm these.

Functional

- Can I ...
- If I click ...

Non-functional

- availability...
- security…

2.2 Definition of Done

In this section you list the acceptance criteria that are common for all user stories. For example, the code should be reviewed and tested, it should be under version control, etc.

1. Koden ska vara objektorienterad.

2. Koden ska vara dokumenterad med JavaDoc.

3. Koden ska ha genomgått JUnit-tester som täcker 100% av kodbasen.

4. Koden har mergats med master utan några negativa konsekvenser för någon del av koden.

2.3 User interface

Include sketches, drawings and explanations of the application's user interface. Describe the navigation between the different views.
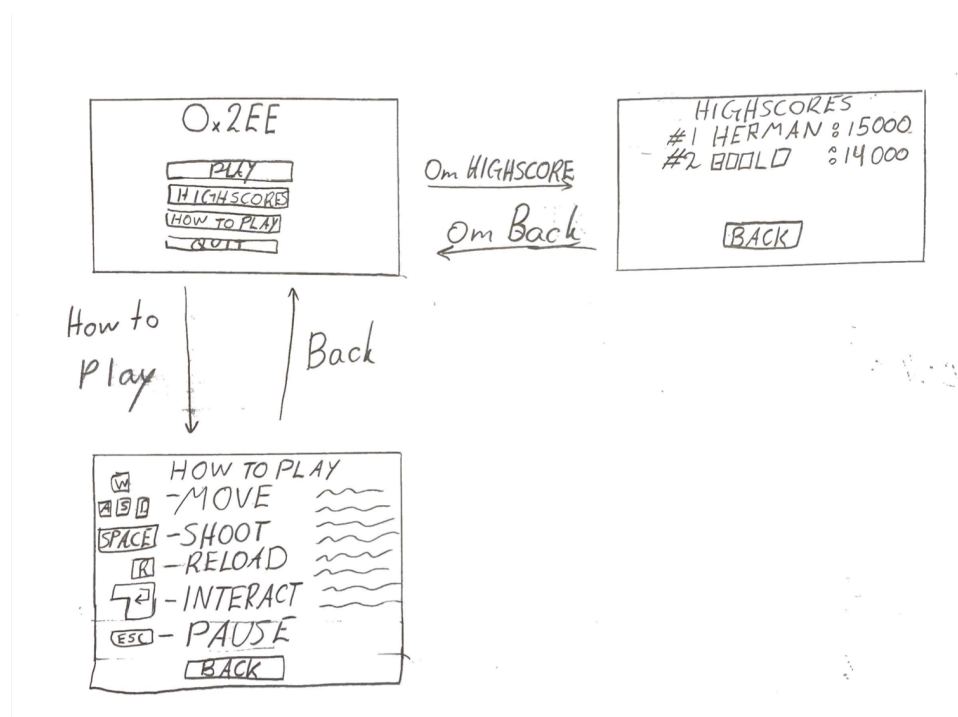

Figure 1: Main menu, Highscores & How to play

The main menu is shown at the top-left in Figure 1. Here you can choose what you want to do, and apart from playing the actual game, you get the possibility to show your highscores and instructions on how to play the game. In the highscoreview (top-right Figure 1) you can see names and scores for the top 5 best saved scores players have received. These are also presented in different colors to clarify each

placement. In the "How to play"-view (bottom-left Figure 1) all controls for the game are shown together with a text describing how the game works.
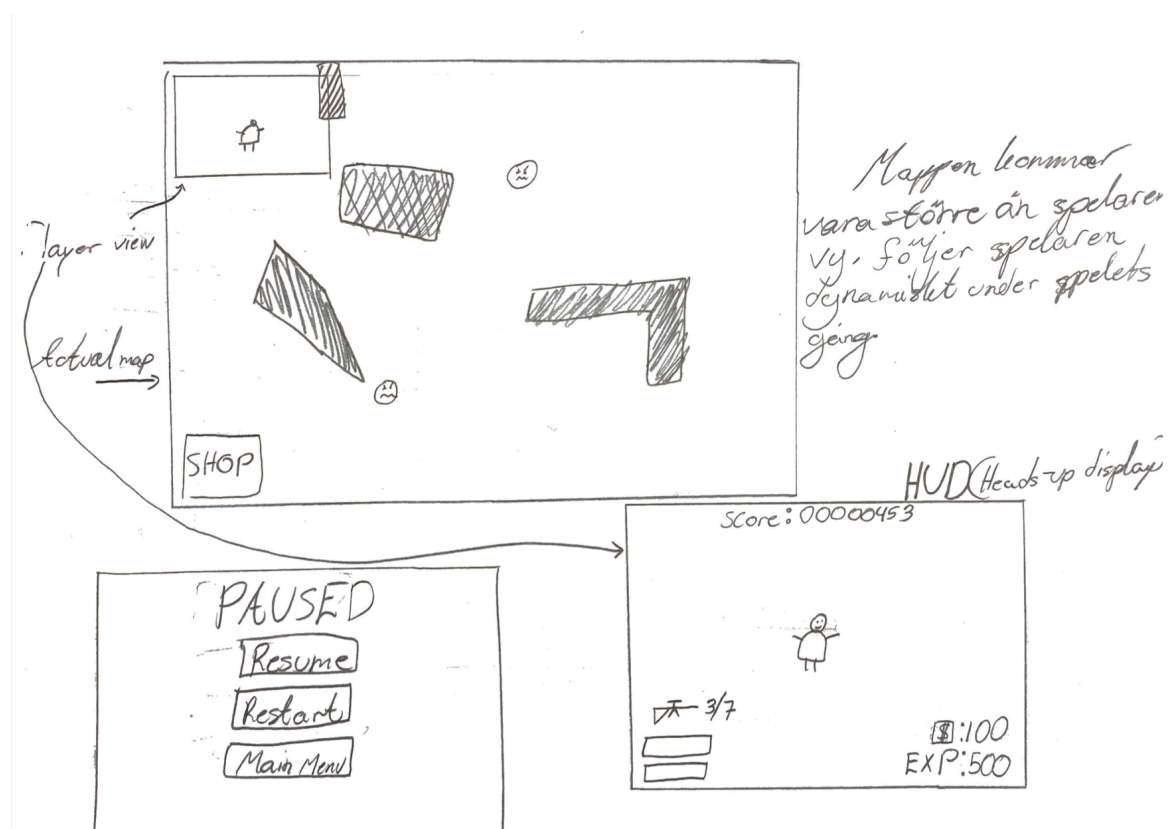

Figure 2: In game & Pause menu

In the top sketch in Figure 2 you can see how the actual game works. The game consists of a map bigger than the actual square that the player sees, and instead there will be a "camera" following the player around the map. There will also be obstacles positioned around the map which neither players or enemies will be able to pass through. The game is a "infinity-game" where enemies continuously spawn and attack until the player no longer is alive. On the map, there will also be a shop where the player can go to upgrade their weapon and armor.

In the bottom sketch to the right in Figure 2, you can see how the game will actually look for the user, whereas the character is placed somewhat in the middle of the screen. During the game, a HUD is also visible which updates the user on certain information, for example their health, score and money.

If you choose to pause the game, you will end up on the view to the bottom-left in Figure 2. Here, the user can choose to navigate back to the main-menu, restart the game or resume the current round.
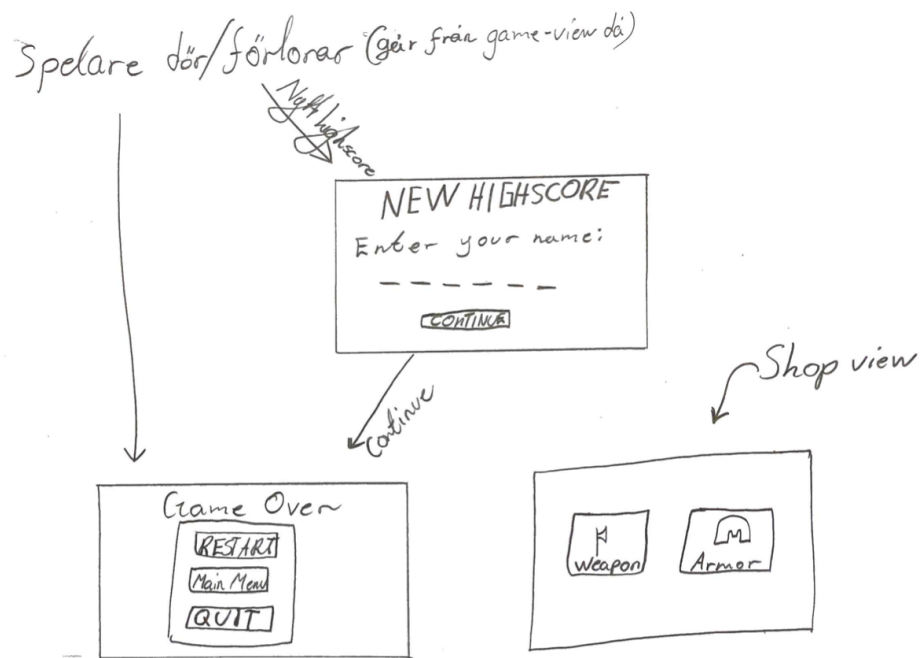
Figur 3: New Highscore, Shop, End

When the game is over, you will be directed to one of two views. If you reach a highscore, you will firstly come to the view shown at the top in Figure 3. Here you will write your name, which will then be saved in a file along with your current new score. When it has been sabed you will be directed to the "Game over"-view, shown at the bottom left in Figure 3. Here you can choose to play again, go back to the main menu och close the game. If you don't reach a highscore, you will instead be directed directly to this view.

On the bottom-right in Figure 3 you can see a sketch of the shop. This one will, among other things, consist of 2 buttons where you can choose to upgrade your weapon or armor.

3 Domain model

Give a high level view overview of the application using a UML diagram.
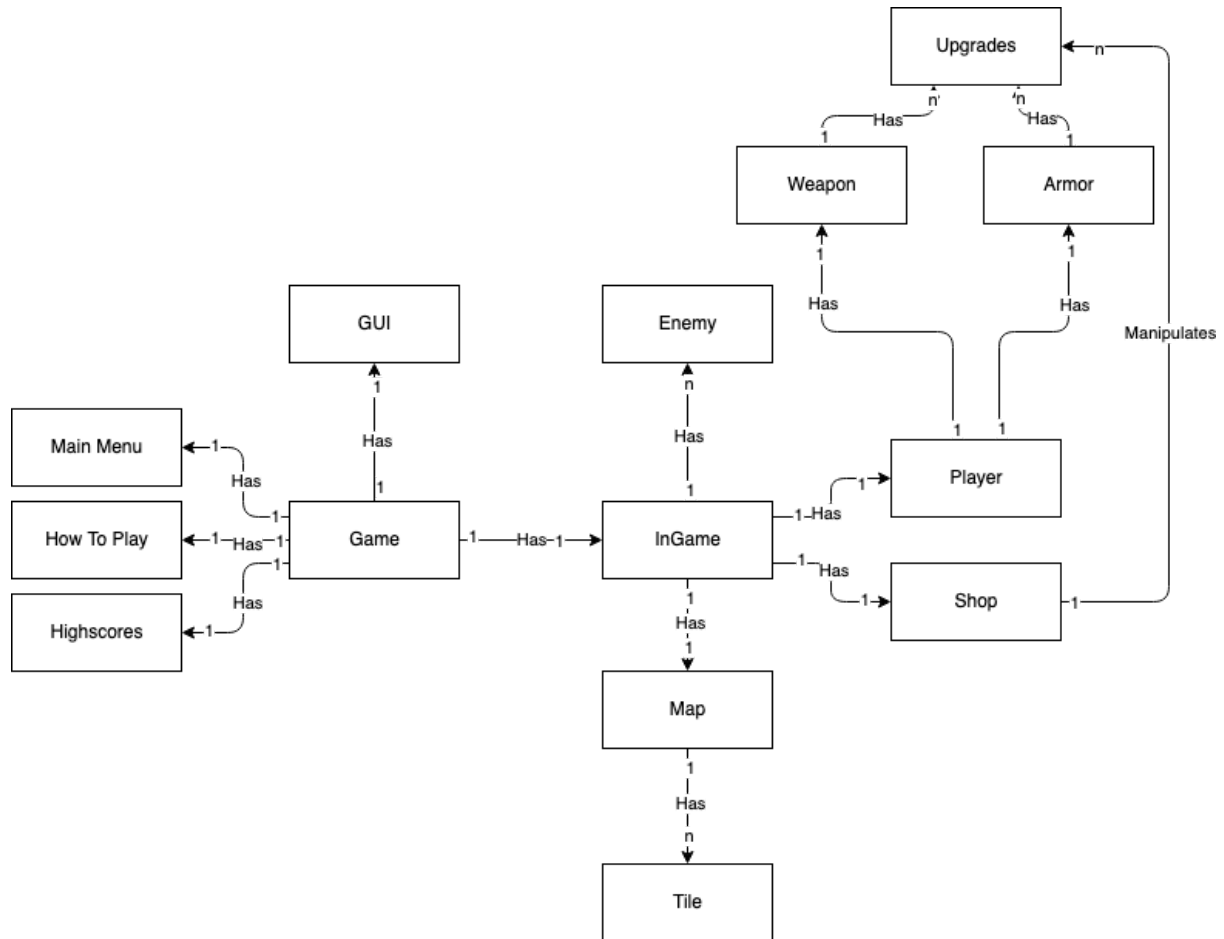
Figur X: Bilden visar projektets domänmodell.

3.1 Class responsibilities

Explanation of responsibilities of classes in diagram.

4 References

[1] Wiki. 2022. *Boxhead (series)*. [online] Available at:
https://boxhead.fandom.com/wiki/Boxhead_(series) [Accessed 3 October 2022].