

Architecture

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1 Description of architecture

The game will consist out of multiple sections: The main menu and its sub-menus as well as the ingame interface. The following diagrams will describe the dependencies between objects and actions within the ingame interface. We plan to wrap the main menu around this core part. Planned: A game controller or master engine is planned, which consists of different parts.

It consists of different smaller Engines: The Health engine, Wave/enemy Engine, Tower engine, Spell Engine, Economy Engine. The architecture should be developed according to the bottom-up principle. The development of the project is according to object orientation and test driven.

2 Diagrams

2.1 Class and structure diagram

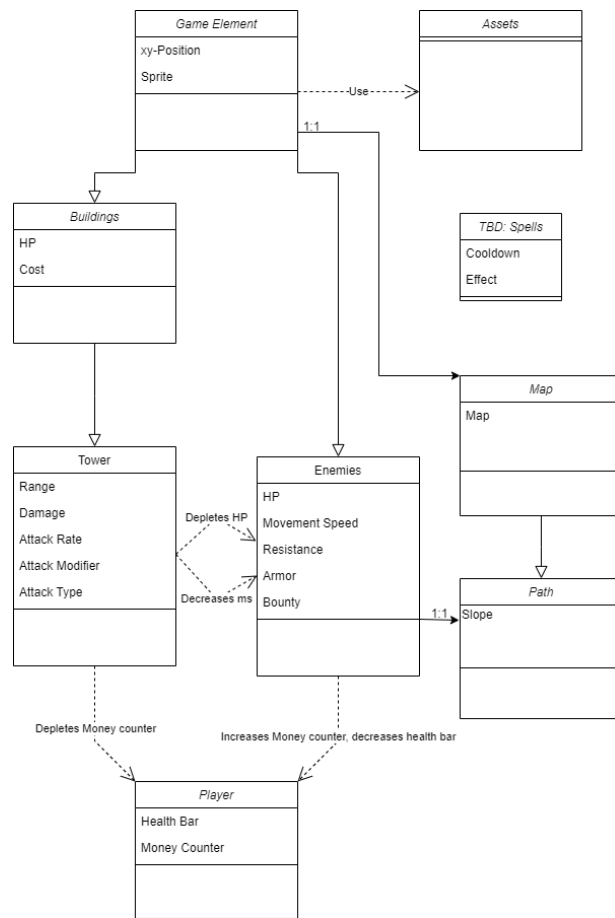


Figure 1: Class Diagram Version 1.0

2.2 State and flow diagrams

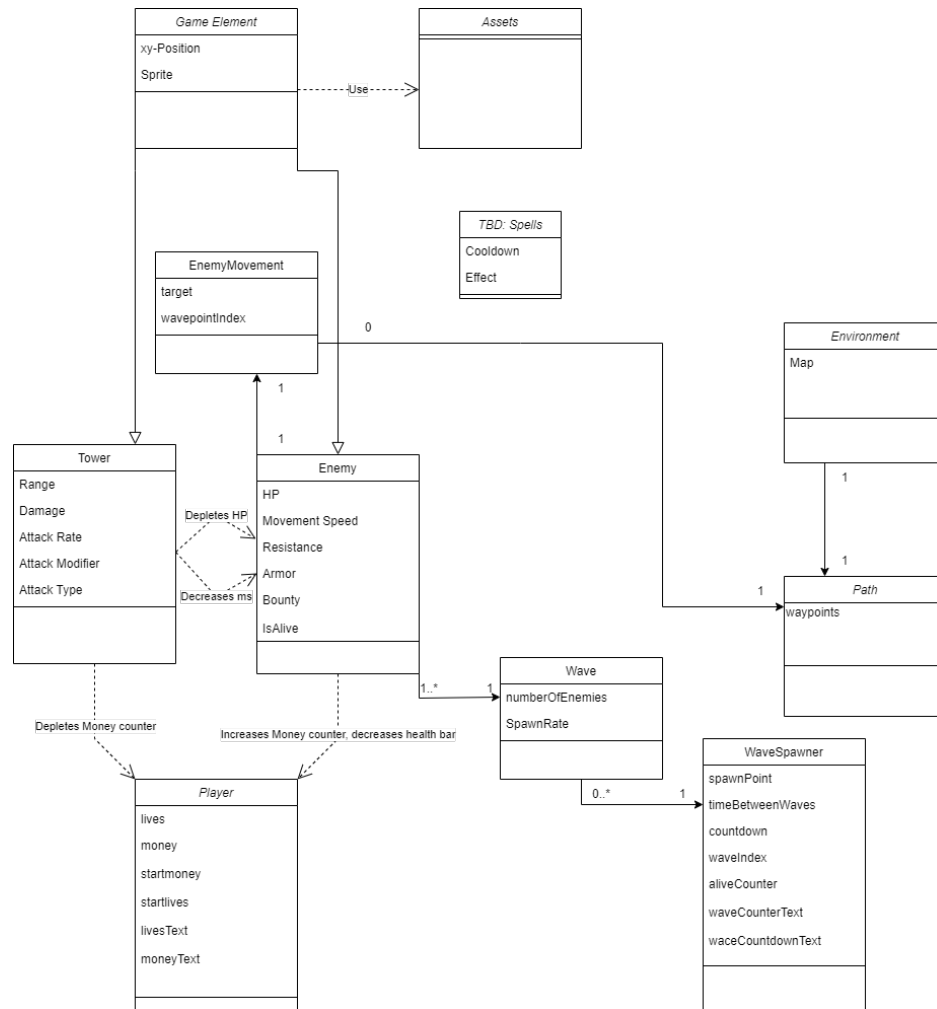


Figure 2: Class Diagram Version 2.0

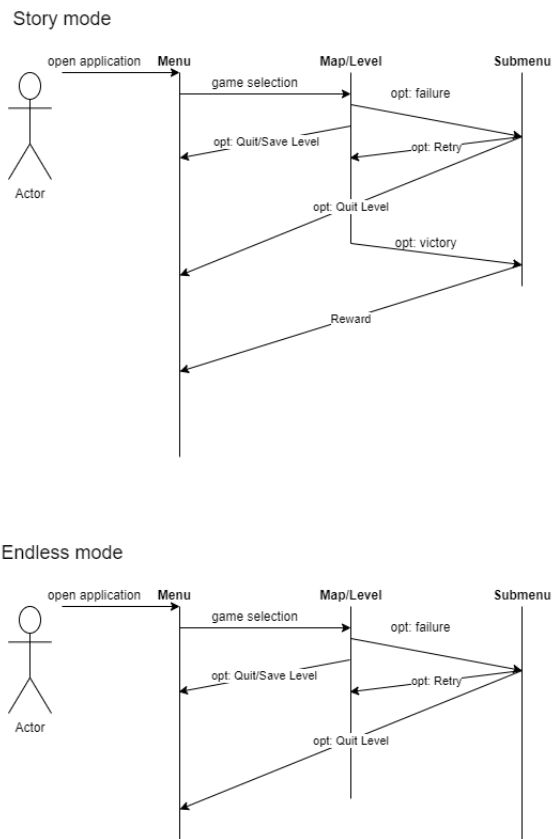


Figure 3: The navigation between the components of the game is described by the following graphs:

Wave sequence

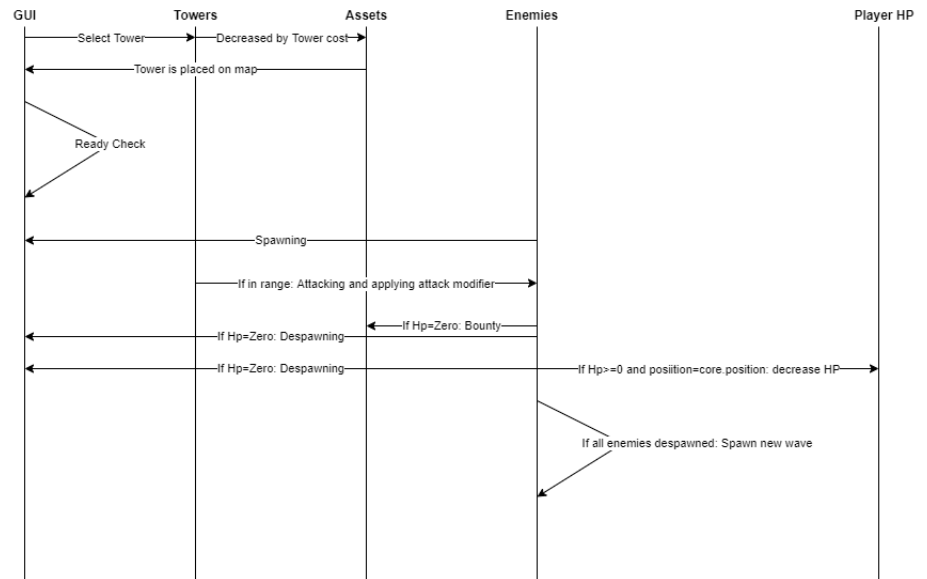


Figure 4: As the user can interact freely with the gui while beeing ingame we present one possible flow of events for one wave of a level:

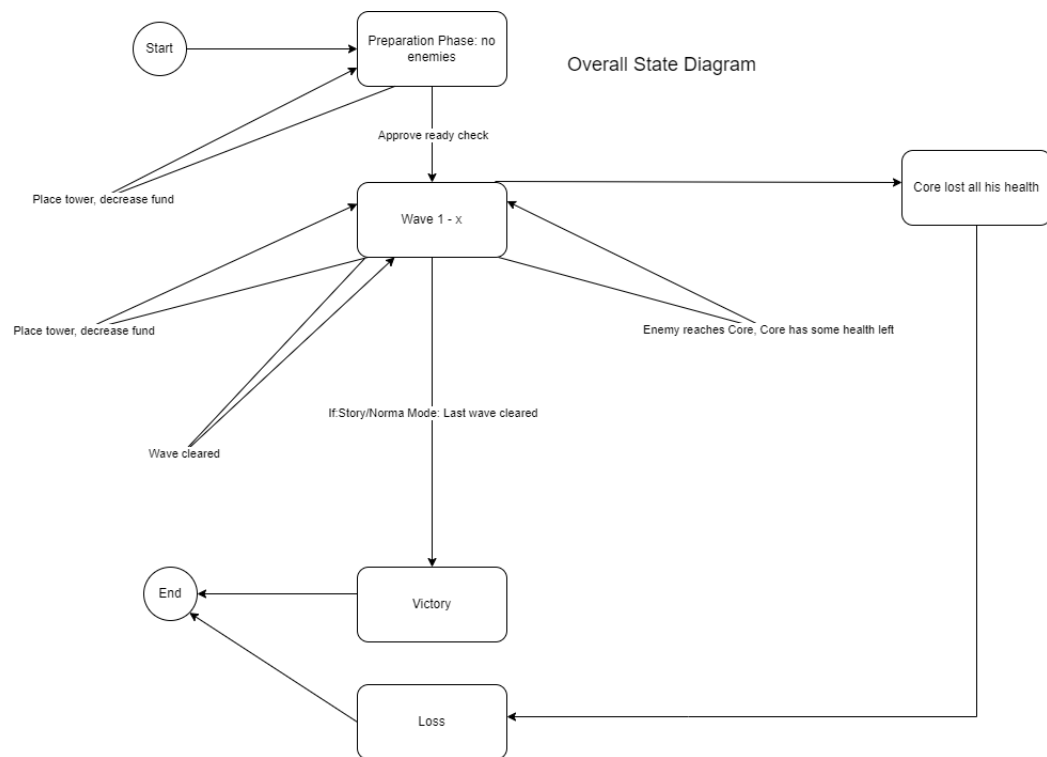


Figure 5: State diagram for the completion of one level:

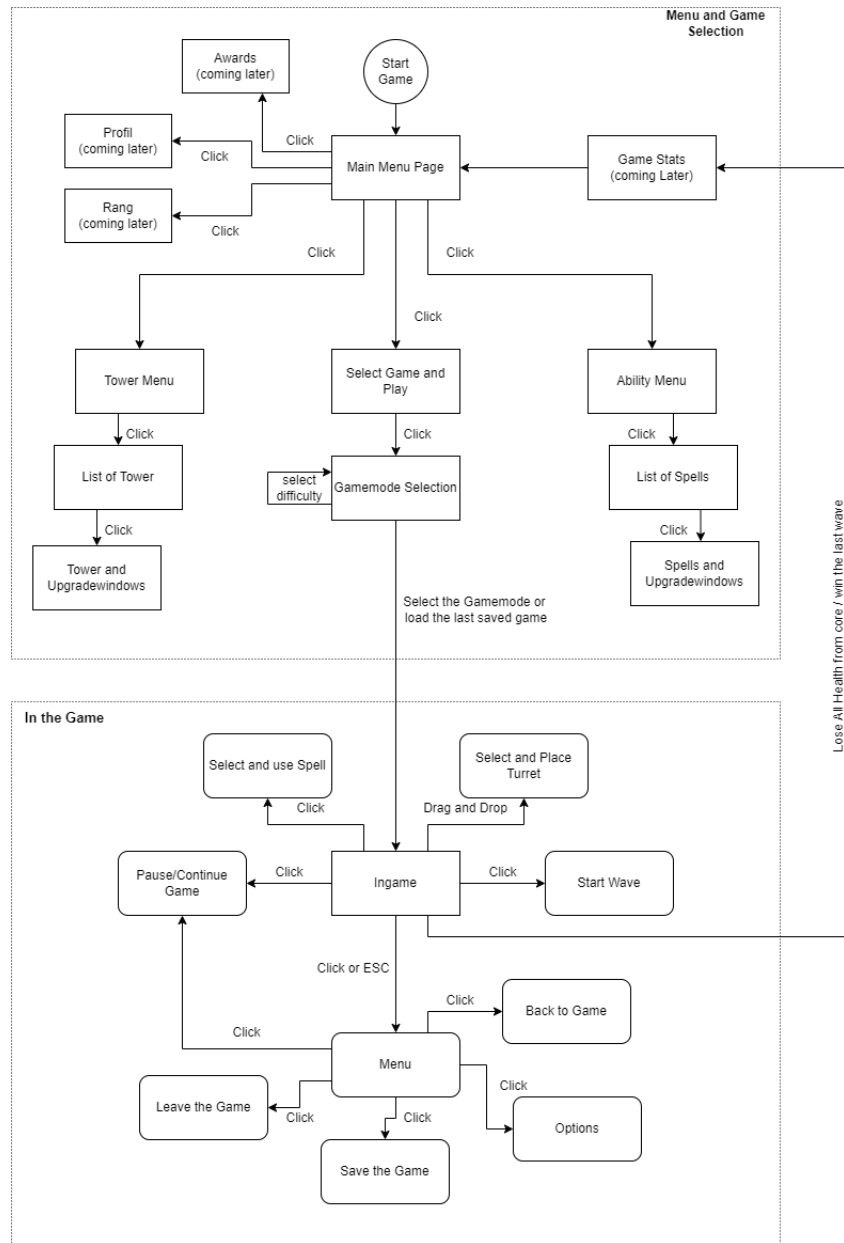


Figure 6: The process and different options in the game for the first version