# 1 - Functional Requirements

This subsection lists the basic requirements expected to be implemented into the game, categorised based on what system it falls under. Requirements are also assigned a priority classification stating the importance of implementing, these are:

**「 M 」**A **mandatory** feature necessary for the game to be run, or a feature deeply embedded  
into the gameplay.

**「 H 」**A **high priority** feature that is that not mandatory but considered an essential aspect within gameplay or experience.

**「 L 」**A **low priority** feature that enriches gameplay experience.

## 1.1 - Menu

|  |  |  |
| --- | --- | --- |
| ID | Requirement | Priority |
| 1.1.1 | Game can boot up without crashing. | **M** |
| 1.1.2a | Title screen clearly displays menu selection – Play (Multiplayer), Options, Exit. | **M** |
| 1.1.2b | Menu buttons can be interacted and direct to the expected corresponding screen. | **M** |
| 1.1.3a | Clicking Play takes player to a session creation screen displaying a text input field for creating a session (2-player) using a self-defined key, and one for joining a session. Buttons will also be included to finalise the text input for both creating and joining a session respectively. | **M** |
| 1.1.3b | Creating a session using a key will bring the player to a waiting screen, that will wait for a second player to join. | **M** |
| 1.1.3c | Clicking the cancel button in multiplayer waiting screen terminates the session, causing the session key to expire (no longer joinable). | **H** |
| 1.1.3d | Session is terminated when session host loses internet connection and displays an error message. | **H** |
| 1.1.4 | Clicking join takes player to a lobby screen where user can input a session token to join an existing session. | **M** |
| 1.1.5 | If two players are detected to be connected to a single session, a match will start. | **M** |
| 1.1.6a | Clicking options directs the user to an option pop-up screen. | **H** |
| 1.1.6b | Option screen displays – Resolution tab, Full screen radio button, BGM slider, SFX slider, Master volume slider, Brightness slider (?), Apply, Exit (red cross). | **H** |
| 1.1.6c | Option settings can be applied when changed, this generates a notification asking to confirm. | **H** |
| 1.1.6d | Changed options can be cancelled by clicking the exit, this generates a notification asking to confirm. | **H** |
| 1.1.7 | Clicking the exit button in the menu closes the application. | **M** |

## 

## 1.2 - Pre-Game

|  |  |  |
| --- | --- | --- |
| ID | Requirement | Priority |
| 1.2.1 | Player whose turn starts first is decided by a coinflip (50/50) at the start of the session match. | **M** |
| 1.2.2a | Pre-defined map is generated correctly (e.g., terrain, structures, player owned structures) at the start of the match. | **M** |
| 1.2.2b | Both players start with at minimum the following owned structures 1x Keep, 1x Barracks, 1x Village. | **M** |

## 1.3 - Terrain

|  |  |  |
| --- | --- | --- |
| ID | Requirement | Priority |
| 1.3.1 | Variations of terrain graphics is visible on the map. | **M** |
| 1.3.2a | Forest, Mountains, Ruins, and Plains terrain are implemented and defined. | **H** |
| 1.3.2b | Above stated terrains provide the correct matching bonus effects corresponding to the intended interactions. | **H** |
| 1.3.3a | River, Swamp, and Desert terrain are implemented and defined. | **L** |
| 1.3.3b | Above stated terrains provide the correct bonus matching effects corresponding to the intended interactions. | **L** |
| 1.3.4 | Terrain effects are displayed on a UI panel somewhere on screen, when hovered over. | **L** |
| 1.3.5 | Units can traverse over or be deployed on terrain. | **M** |
| 1.3.6a | Under certain conditions, units cannot traverse over certain terrain. | **H** |
| 1.3.6b | Under certain conditions, unit movements are hindered by certain terrain. | **H** |

## 1.4 - Structures

|  |  |  |
| --- | --- | --- |
| ID | Requirement | Priority |
| 1.4.1 | A player can interact with structures they own. | **M** |
| 1.4.2 | Structures can be owned by a player by capturing it, if not already owned by them. | **M** |
| 1.4.3 | Keep, Barracks, Village, and Gold Mine structures are implemented and defined. | **M** |
| 1.4.4 | The above stated structures provide the correct matching bonus effects corresponding to the intended interactions. | **H** |
| 1.4.5 | Lumber Mill, and Fortress structures are implemented and defined. | **L** |
| 1.4.6 | The above stated structures provide the correct matching bonus effects corresponding to the intended interactions. | **L** |
| 1.4.7 | Villages, Gold Mines, and the Keep, generate the correct sum of gold, per turn. | **M** |
| 1.4.8a | The Keep, and Villages increase the food resource. | **M** |
| 1.4.8b | When player loses a Village, the food resource decreases. | **M** |
| 1.4.9 | Lumber Mills generate the correct sum of lumber per turn. | **L** |
| 1.4.10 | The Keep, and Barracks, can allow players to purchase units, deducting the cost of gold from their total. | **M** |
| 1.4.11 | Player owned fortress can provide a buff to allied units, within a 3-tile radius. | **L** |