Functional Requirements, USE CASES:

**1.1**            **Move Player**

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | **UC-1** | |
| **Purpose** | | Allows a user to move the player along x-axis and y-axis. | |
| **Priority** | | **High** | |
| **Actors** | | User, System | |
| **Pre-conditions** | | User must have started/loaded the game, keyboard must be connected. | |
| **Post-conditions** | | … | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | The user presses specific keys to move. | | The system responds by moving the player in the specified direction. |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | The user presses specific keys to move. | | The system responds by not moving the player because it is on the boundary of the map. |
|  |  |  |  |

**Table 1: UC-1**

**1.2**            **Aim cursor**

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| --- | --- | --- | --- |
| **Identifier** | | **UC-2** | |
| **Purpose** | | Allows the user to aim the cursor at any (x,y) position in the playable-map area. | |
| **Priority** | | **High** | |
| **Actors** | | User, System | |
| **Pre-conditions** | | User must have loaded/started the game, mouse must be connected. | |
| **Post-conditions** | | **…** | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | User moves the mouse to (x,y) position in the playable area. | | The system moves the crosshair/cursor to that (x,y) position. |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | User moves the mouse to (x,y) position in the non-playable area. | | The system responds by maintaining the crosshair/cursor at the last position in the playable area visited by the user. |
|  |  |  |  |

**Table 1: UC-2**

**1.3**            **Shoot**

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| --- | --- | --- | --- |
| **Identifier** | | **UC-3** | |
| **Purpose** | | Allows the user to shoot at the (x,y) position currently cursor is at in the playable area. | |
| **Priority** | | **High** | |
| **Actors** | | User, System | |
| **Pre-conditions** | | User must have loaded/started the game, mouse and keyboard must be connected. | |
| **Post-conditions** | | **…** | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | User presses the shoot button on their keyboard. | | The system responds by showing bullets being shot towards the position targeted by the cursor. |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | User presses the shoot button on their keyboard while the cursor is out of bounds of the playable area. | | The system responds by showing bullets being shot towards the nearest position (in the line of fire) in the playable area. |
|  |  |  |  |

**Table 1: UC-3**

**1.4**            **Save Progress**

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | **UC-4** | |
| **Purpose** | | Allows the user to save progress after completing a mission. | |
| **Priority** | | **High** | |
| **Actors** | | User, System | |
| **Pre-conditions** | | User must have completed the mission. | |
| **Post-conditions** | | User’s progress is saved, can exit game or play another mission. | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | User clicks the save progress button after completing a mission. | | The system responds by saving the progress of the user. |
|  |  |  |  |

**Table 1: UC-4**