

**Game Starts**

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| Use Case:                     | Opens game  |
| Primary Actor:                | Player  |
| Goal in Context:              | To Start up the game  |
| Preconditions:                | The player has the game installed   |
| Trigger:                      | The player opens the game   |
| Scenario:                     | 1. Player: Opens game from where the game is installed<br>2. System:Opens the game<br>3. System: Displays main menu   |
| Exceptions:                   | Player has not installed game/ improperly installed - Game does not start   |
| Priority:                     | Essential   |
| When available:               | First increment   |
| Frequency of Use:             | As often as the player chooses  |
| Channel to Actor:             | Via PC or laptop interface  |
| Secondary Actor:              | Game Software   |
| Channels to Secondary Actors: | PC  |
| Open Issues:                  | 1. What if the player force exits the games (not via the in game menus)<br>2. What if the player doesn't have a mouse/ the mouse stops functioning?<br>3. What if the functions/ use-cases collide with each other/ happens at the same time? |

**Main Menu**

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| Use Case:         | Enter “Play” (Level menu)   |
| Primary Actor:    | Player  |
| Goal in Context:  | To bring the player to the level menu   |
| Preconditions:    | The Player has the game opened and was in the main menu   |
| Trigger:          | The player presses the “Play” button  |
| Scenario:         | 1. Player: clicks “Play” button to play a level<br>2. System: brings the player to the level menu   |
| Exceptions:       | 1. The player clicks “Tutorial” - see use-case “Enter Tutorial”<br>2. The player clicks “Exit Game” - see use-case “Exit from main menu”<br>3. The player clicks places with no functionalities - do nothing. |
| Priority:         | Essential   |
| When available:   | First increment   |
| Frequency of Use: | Very frequent - Varies among players  |
| Channel to Actor: | Via mouse interaction   |

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| <b>Secondary Actor:</b>              | Game Software   |
| <b>Channels to Secondary Actors:</b> | PC  |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li></ol> |

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| <b>Use Case:</b>                     | <b>Enter Tutorial</b>   |
| <b>Primary Actor:</b>                | Player  |
| <b>Goal in Context:</b>              | For new players to enter the game and learn how the game works  |
| <b>Preconditions:</b>                | Player has to be in main menu screen  |
| <b>Trigger:</b>                      | The player clicks on the "Tutorial" button  |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1.Player: opens the game</li><li>2.Player: clicks the "Tutorial" button from main menu</li><li>3.System: opens the tutorial page for the player</li></ol>   |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. The player clicks "Play" - see use-case "Enter "Play"</li><li>2. The player clicks "Exit Game" - see use-case "Exit from main menu"</li><li>3. The player clicks places with no functionalities - do nothing.</li></ol>  |
| <b>Priority:</b>                     | Intermediate(?)   |
| <b>When available:</b>               | Second increment(?)   |
| <b>Frequency of Use:</b>             | On average: once per player   |
| <b>Channel to Actor:</b>             | Via mouse interaction   |
| <b>Secondary Actor:</b>              | Game Software   |
| <b>Channels to Secondary Actors:</b> | PC  |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li></ol> |

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| <b>Use Case:</b>        | <b>Exit from Main Menu</b>   |
| <b>Primary Actor:</b>   | Player   |
| <b>Goal in Context:</b> | To allow the player to exit the game from the main menu  |
| <b>Preconditions:</b>   | The player is in the main menu   |
| <b>Trigger:</b>         | The player presses the "Exit game" button  |
| <b>Scenario:</b>        | <ol style="list-style-type: none"><li>1. Player: observe main menu</li><li>2. Player: clicks "Exit" button with mouse or interact with keyboard</li><li>3. System: closes the game</li></ol> |
| <b>Exceptions:</b>      | <ol style="list-style-type: none"><li>1. The player clicks "Play" - see use-case "Enter "Play"</li></ol>   |

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|                               | a. The player clicks “Tutorial” - see use-case “Enter Tutorial”<br>2. The player clicks places with no functionalities - do nothing.  |
| Priority:                     | Intermediate  |
| When available:               | First increment   |
| Frequency of Use:             | Varies among player   |
| Channel to Actor:             | Via mouse interaction   |
| Secondary Actor:              | Game Software   |
| Channels to Secondary Actors: | PC  |
| Open Issues:                  | 1. What if the player force exits the games (not via the in game menus)<br>2. What if the player doesn't have a mouse/ the mouse stops functioning?<br>3. What if the functions/ use-cases collide with each other/ happens at the same time? |

**Tutorial**

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| Use Case:                     | Exit Tutorial   |
| Primary Actor:                | Player  |
| Goal in Context:              | To leave the tutorial and allow the players to return to the main menu  |
| Preconditions:                | Player is in the tutorial   |
| Trigger:                      | The player clicks the X button to leave tutorial  |
| Scenario:                     | 1.Player: clicks the X button on top right of the tutorial page<br>2.System: Closes the tutorial page and goes back to main menu  |
| Exceptions:                   | The player clicks places with no functionalities - do nothing.  |
| Priority:                     | Intermediate  |
| When available:               | Second increment  |
| Frequency of Use:             | On average: once per player   |
| Channel to Actor:             | via mouse interaction   |
| Secondary Actor:              | Game Software   |
| Channels to Secondary Actors: | PC  |
| Open Issues:                  | 1. What if the player force exits the games (not via the in game menus)<br>2. What if the player doesn't have a mouse/ the mouse stops functioning?<br>3. What if the functions/ use-cases collide with each other/ happens at the same time? |

**Level**

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| Use Case:      | Choose Level |
| Primary Actor: | Player       |

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| <b>Goal in Context:</b>              | To allow the player to choose from the 5 available levels and start the game  |
| <b>Preconditions:</b>                | The player is in the level menu   |
| <b>Trigger:</b>                      | The player presses on the level they wish to play.  |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: observes level menu</li><li>2. Player: starts the game by clicking on one of the stages</li><li>3. System: brings the player to the game with the corresponding level</li></ol>  |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. The player clicks “Return” - see use-case “Exit Level Menu”</li><li>2. The player clicks places with no functionalities - do nothing.</li></ol>  |
| <b>Priority:</b>                     | High priority - part of the basic functions   |
| <b>When available:</b>               | First iteration   |
| <b>Frequency of Use:</b>             | As frequently as the player chooses   |
| <b>Channel to Actor:</b>             | via mouse interaction   |
| <b>Secondary Actor:</b>              | Game Software   |
| <b>Channels to Secondary Actors:</b> | PC  |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li></ol> |

| Use Case: Exit Level Menu            |  |
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| <b>Primary Actor:</b>                | Player   |
| <b>Goal in Context:</b>              | To allow the player to leave the level menu and go back to the main menu   |
| <b>Preconditions:</b>                | The player is in the level menu  |
| <b>Trigger:</b>                      | The player presses on the exit/ return button  |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: observes level menu</li><li>2. Player: wish to go back to the main menu, so they press the return button</li><li>3. System: brings the player back to the main menu</li></ol> |
| <b>Exceptions:</b>                   | The player did not click the return button   |
| <b>Priority:</b>                     | intermediate   |
| <b>When available:</b>               | second increment   |
| <b>Frequency of Use:</b>             | varies among player  |
| <b>Channel to Actor:</b>             | with keyboard and mouse interaction  |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li></ol>  |

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|  | <ol style="list-style-type: none"><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li></ol> |
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**In-Game**

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| <b>Use Case:</b>                     | <b>Player starts the level</b>   |
| <b>Primary Actor:</b>                | Player   |
| <b>Goal in Context:</b>              | To prepare and allow the player to start the level.<br>Display map.  |
| <b>Preconditions:</b>                | Player has selected a level on level screen  |
| <b>Trigger:</b>                      | The player clicked a level to start  |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: clicks a level - see use-case "Choose Level"</li><li>2. System: opens the level player clicked on</li><li>3. System: the system starts with a timer counting down to start of the level</li><li>4. System: Starts game and allows player to from the entrance</li><li>5. Player: Using WASD to move around the map.</li></ol> |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. Game crashes mid countdown to starting level</li></ol>  |
| <b>Priority:</b>                     | Immediate  |
| <b>When available:</b>               | First increment  |
| <b>Frequency of Use:</b>             | Very frequent/ As often as the player chooses  |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app   |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li></ol>  |

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| <b>Use Case:</b>        | <b>User steps on enemies (traps &amp; monsters)</b>  |
| <b>Primary Actor:</b>   | Player   |
| <b>Goal in Context:</b> | To decrease the player's score when stepped on trap or monster   |
| <b>Preconditions:</b>   | Player must be in the middle of gameplay   |
| <b>Trigger:</b>         | The player steps on one of the traps/monsters  |
| <b>Scenario:</b>        | <ol style="list-style-type: none"><li>1. Player: playing the game</li><li>2. Player: steps on one of the traps or steps on a cell where a monster is at</li><li>3. System: decreases player's score by an amount</li></ol> |
| <b>Exceptions:</b>      | <ol style="list-style-type: none"><li>1. Player never steps on any enemies - do nothing.</li></ol>   |
| <b>Priority:</b>        | Immediate  |
| <b>When available:</b>  | First increment  |

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| <b>Frequency of Use:</b>             | Sometimes/ As often as the player encounters the traps  |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app  |
| <b>Secondary Actor:</b>              | Game Software   |
| <b>Channels to Secondary Actors:</b> | PC  |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li><li>4. What if the monster is currently on the same cell as the trap?</li></ol> |

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| <b>Use Case:</b>                     | <b>User reaches exit</b>  |
| <b>Primary Actor:</b>                | Player  |
| <b>Goal in Context:</b>              | To see if the player meets the requirement of completing the level  |
| <b>Preconditions:</b>                | Player must be in the middle of gameplay  |
| <b>Trigger:</b>                      | The player steps on the exit cell   |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: is on the exit cell</li><li>2. System: displays victory screen if all regular rewards are collected - see use-case "Exit game after victory"</li><li>3. System: else do nothing (rewards not collected)</li></ol>                                      |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. When the player doesn't ever reach the exit cell during gameplay - they can use the pause menu to exit the level if desired - see use-case "Pause Game"</li></ol>  |
| <b>Priority:</b>                     | Intermediate  |
| <b>When available:</b>               | First increment   |
| <b>Frequency of Use:</b>             | Very frequent/ As often as the player chooses   |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app  |
| <b>Secondary Actor:</b>              | Game Software   |
| <b>Channels to Secondary Actors:</b> | PC  |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li><li>3. What if the functions/ use-cases collide with each other/ happens at the same time?</li></ol> |

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| <b>Use Case:</b>        | <b>Pause Game</b>  |
| <b>Primary Actor:</b>   | Player   |
| <b>Goal in Context:</b> | To temporarily stop all game play:<br>All enemies stop moving<br>No additional actions may be taken by the player<br>Display "pause-game" menu |

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| <b>Preconditions:</b>                | Player must be in the middle of gameplay  |
| <b>Trigger:</b>                      | The player clicks on the “pause” button on the game interface   |
| <b>Scenario:</b>                     | 6. Player: observes game interface<br>7. Player: clicks “pause” button<br>8. System: stops gameplay ticks<br>9. System: Shows “paused” menu         |
| <b>Exceptions:</b>                   | Player clicks outside of “pause” button - game continues (do nothing)   |
| <b>Priority:</b>                     | Intermediate  |
| <b>When available:</b>               | Second increment  |
| <b>Frequency of Use:</b>             | Sometimes/ As often as the player chooses   |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app  |
| <b>Secondary Actor:</b>              | Game Software   |
| <b>Channels to Secondary Actors:</b> | PC  |
| <b>Open Issues:</b>                  | 4. What if the player force exits the games (not via the in game menus)<br>5. What if the player doesn't have a mouse/ the mouse stops functioning? |

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| <b>Use Case:</b>                     | <b>Player encounters a reward</b>  |
| <b>Primary Actor:</b>                | Player   |
| <b>Goal in Context:</b>              | To increase to player's score when stepping on a reward  |
| <b>Preconditions:</b>                | Player must be in middle of gameplay   |
| <b>Trigger:</b>                      | Player steps on one of the rewards   |
| <b>Scenario:</b>                     | 1. Player: is on the same cell as a reward<br>2. System: Increases the player's score by a amount  |
| <b>Exceptions:</b>                   | N/A  |
| <b>Priority:</b>                     | Immediately  |
| <b>When available:</b>               | First Increment  |
| <b>Frequency of Use:</b>             | Often  |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app   |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | 1. What if the player force exits the games (not via the in game menus)<br>2. What if the player doesn't have a mouse/ the mouse stops functioning?<br>3. What if the monster is on the reward cell? |

**Paused**

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| <b>Use Case:</b>                     | <b>Resumes Game</b>  |
| <b>Primary Actor:</b>                | Player   |
| <b>Goal in Context:</b>              | Resumes to gameplay via exiting the “pause game” menu<br>Enemies resume movement<br>Player is able to take action again  |
| <b>Preconditions:</b>                | Game must be in “pause game” menu screen   |
| <b>Trigger:</b>                      | Player clicks “resume” button on “pause game” menu screen  |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: observes “pause game” menu interface</li><li>2. Player: clicks “resume” button via mouse</li><li>3. System: Shows gameplay screen</li><li>4. System: Resumes gameplay ticks</li></ol> |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. Player clicks “Exit Game” - see use-case “Exit Game from Pause Menu”</li><li>2. Player clicks outside of “resume” button - do nothing</li></ol>   |
| <b>Priority:</b>                     | Intermediate   |
| <b>When available:</b>               | Second increment   |
| <b>Frequency of Use:</b>             | Equal to or less than the frequency at which the player pauses the game/<br>Equal to how often the player wishes to resume gameplay after pausing  |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app   |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn’t have a mouse/ the mouse stops functioning?</li></ol>                               |

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| <b>Use Case:</b>         | <b>Exit Game from Pause Menu</b>  |
| <b>Primary Actor:</b>    | Player  |
| <b>Goal in Context:</b>  | To exit the game completely after pausing gameplay  |
| <b>Preconditions:</b>    | Game must be in “pause game” menu screen  |
| <b>Trigger:</b>          | Player clicks “Exit” button on “pause game” menu screen   |
| <b>Scenario:</b>         | <ol style="list-style-type: none"><li>3. Player: observes “pause game” menu interface</li><li>4. Player: Clicks “Exit” button via mouse</li><li>5. System: Closes game</li></ol>  |
| <b>Exceptions:</b>       | <ol style="list-style-type: none"><li>1. Player clicks “resume game” - see use-case “Resumes Game”</li><li>2. Player clicks outside of “pause game” button - do nothing</li></ol> |
| <b>Priority:</b>         | Intermediate  |
| <b>When available:</b>   | Second Increment  |
| <b>Frequency of Use:</b> | Equal to or less than the frequency at which the player pauses the game<br>Equal to how often the player wishes to exit/close the game after pausing                              |
| <b>Channel to Actor:</b> | Via mouse controls on the computer desktop app  |



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| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>4. What if the player force exits the games (not via the in game menus)</li><li>5. What if the player doesn't have a mouse/ the mouse stops functioning?</li></ol> |

**Game Over**

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| <b>Use Case:</b>                     | <b>Retries Level after Death</b>   |
| <b>Primary Actor:</b>                | Player   |
| <b>Goal in Context:</b>              | To allow players to retry the current level after death.   |
| <b>Preconditions:</b>                | The player dies due to their score dropping down to 0.   |
| <b>Trigger:</b>                      | The player clicks on the “Retry Level” button when the death menu pops up.   |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: observes death menu</li><li>2. Player: selects “Retry level”</li><li>3. The system restarts the same level for the player</li></ol>                     |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. The player clicks “Exit Level” - see use-case “Exit Game After Death”</li><li>2. The player clicks places with no functionalities - do nothing.</li></ol>       |
| <b>Priority:</b>                     | Moderate priority, to be implemented after basic functions.  |
| <b>When available:</b>               | Second Increment   |
| <b>Frequency of Use:</b>             | As many times as the player needs (Varies among players)   |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app   |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li></ol> |

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| <b>Use Case:</b>        | <b>Exit Game After Death</b>  |
| <b>Primary Actor:</b>   | Player  |
| <b>Goal in Context:</b> | To allow players to exit the death menu and go back to the level menu after death.  |
| <b>Preconditions:</b>   | The player dies due to their score dropping down to 0.  |
| <b>Trigger:</b>         | The player clicks on the “Exit Level” button when the death menu pops up.   |
| <b>Scenario:</b>        | <ol style="list-style-type: none"><li>1. Player: observes death menu</li><li>2. Player: selects “Exit Level”</li><li>3. The system brings the player back to the Level menu</li></ol>                   |
| <b>Exceptions:</b>      | <ol style="list-style-type: none"><li>1. The player clicks “Retry Level” - see use-case “Retries Level after Death”</li><li>2. The player clicks places with no functionalities - do nothing.</li></ol> |
| <b>Priority:</b>        | Moderate priority, to be implemented after basic functions, but before “Retries Level after Death”  |

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| <b>When available:</b>               | First/ Second Increment  |
| <b>Frequency of Use:</b>             | As many times as the player needs (Varies among players)   |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app   |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li></ol> |

**Victory**

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| <b>Use Case:</b>                     | <b>Exit Game After Victory</b>   |
| <b>Primary Actor:</b>                | Player   |
| <b>Goal in Context:</b>              | To allow the player to back to select level after winning the level  |
| <b>Preconditions:</b>                | The player obtains all the rewards and reaches the exit  |
| <b>Trigger:</b>                      | The player clicks exit level to return to level selection screen   |
| <b>Scenario:</b>                     | <ol style="list-style-type: none"><li>1. Player: observes victory screen</li><li>2. Player: selects “Exit Level”</li><li>3. The system brings the player back to the Level menu</li></ol>                |
| <b>Exceptions:</b>                   | <ol style="list-style-type: none"><li>1. The player clicks places with no functionalities - do nothing.</li></ol>  |
| <b>Priority:</b>                     | Moderate priority, to be implemented after basic functions   |
| <b>When available:</b>               | First/ Second Increment  |
| <b>Frequency of Use:</b>             | As many times as the player needs (Varies among players)   |
| <b>Channel to Actor:</b>             | Via mouse controls on the computer desktop app   |
| <b>Secondary Actor:</b>              | Game Software  |
| <b>Channels to Secondary Actors:</b> | PC   |
| <b>Open Issues:</b>                  | <ol style="list-style-type: none"><li>1. What if the player force exits the games (not via the in game menus)</li><li>2. What if the player doesn't have a mouse/ the mouse stops functioning?</li></ol> |