**Test Scenario Group: Main Menu**

**Test Case Description: Display Main Menu**

**Prerequisite:** N.A.

**Post-requisite:** N.A.

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| **Test Scenario** | **Passing/Failing Test Case** | **Action(s)** | **Input** | **Expected Output** | **Actual Output** | **Test Result** |
| 01 | Passing | Display Main Menu | NIL | System display main menu | System display main menu | Passed |
| 02 | Passing | User input option 1 | Select option: 1 | System display Read Maze page | System display Read Maze page | Passed |
|  | Passing | User input option 2 | Select option: 2 | System display View Maze page | System display View Maze page | Passed |
|  | Passing | User input option 3 | Select option: 3 | System display Play Maze page | System display Play Maze page | Passed |
|  | Passing | User input option 4 | Select option: 4 | System display configure maze page | System does not show anything as this feature is not implemented. | Failed |
|  | Failing | Input other than numbers(Eg: Alphabet, symbols) | Select option: A | Error message: “Wrong input entered. Only numbers are allowed” | Error message: “Wrong input entered. Enter the values from the menu” | Passed |
|  | Failing | Input value not shown in main menu | Select option: 69 | Error message: “Wrong input entered. Enter the values from the menu” | Error message: “Wrong input entered. Enter the values from the menu | Passed |
|  | Failing | Input blank value | Select option: | Error message: “No input is entered. Please input a valid option” | Error message: “Wrong input entered. Enter the values from the menu” | Passed |
| 03 | Passing | Exit the program | Select option: 0 | System exits program | System exits program | Passed |

This test case verifies the Main menu feature, which allows users to navigate through the different features of the application. The passing test should allow users to navigate each feature by pressing the right input value to navigate to the correct feature. Otherwise, an error message will show as a result of wrong inputs, which is conducted for the failing test.

**Test Scenario Group: Read & Load maze**

**Test Description: User enter the file name and display the number of lines**

**Prerequisite:** N.A.

**Post-requisite:** N.A.

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| **Test Scenario** | **Passing/Failing case** | **Test Description** | **Input** | **Expected outcome** | **Actual Outcome** | **Test Result** |
| 01 | Passing | User input the filename | Enter filename of maze: maze.csv and enter | System display successful message and file stored in memory | System display successful message, file did not store in memory | Passed for reading file  Failed for memory storage |
| 02 | Failing | User enters wrong filename | Enter filename of maze: msze.csv | System will display error message | System display error message: “File not found | Passed |
| 03 | Failing | User inserts wrong file extension | Enter filename of maze: maze.docx | System display error message: “File not found” | System display error message: “File not found” | Passed |
| 04 | Failing | User does not enter filename | Enter filename of maze: | System will display an error message “File not selected” | System display error message: “File not found” | Passed |

**Test Scenario Group: View Maze**

**Test Case Description: View Maze from selected file**

**Prerequisite:** File must be loaded before viewing

**Post-requisite:** User is able to view the selected maze

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| **Test Scenario** | **Passing/Failing Test Case** | **Action(s)** | **Input** | **Expected Output** | **Actual Output** | **Test Result** |
| 01 | Passing | User views maze with file selected | Filename: maze.csv | User is able to view maze from selected file | User is able to view maze from selected | Passed |
| 02 | Failing | User views maze with wrong file type | Filename: Notmaze.docx | System display error message: “Incorrect file type inserted. Please insert the correct file type.” | System display error message: “Incorrect file type inserted. Please insert the correct file type.” | Passed |
| 03 | Failing | User views maze without maze inside | Filename: mazedraft.csv | System display error message: No maze found in file. Please load the correct maze file. | System display error message: No maze found in file. Please load the correct maze file. | Passed |

**Test Scenario Group: Play Maze**

**Test Case Description: Play Maze from selected file**

**Prerequisite:** File must be read before playing

**Post-requisite:** Selected maze is shown for user to play

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| **Test Scenario** | **Passing/Failing Test Case** | **Action(s)** | **Input** | **Expected Output** | **Actual Output** | **Test Result** |
| 01 | Passing | User proceeds to play maze with file loaded | Filename: maze.csv | User is able to see and play selected maze | System display selected maze map | Passed |
| 02 | Passing | User presses alphabetical keys(eg: ‘W’, ‘A’, ‘S’, ‘D’) to move | Key: ‘W’ | Character moves up. | Character moves up. | Passed |
|  | Passing | User presses alphabetical keys(eg: ‘W’, ‘A’, ‘S’, ‘D’) to move | Key: ‘A’ | Character moves left. | Character moves left | Passed |
|  | Passing | User presses alphabetical keys(eg: ‘W’, ‘A’, ‘S’, ‘D’) to move | Key: ‘S’ | Character moves down. | Character moves down. | Passed |
|  | Passing | User presses alphabetical keys(eg: ‘W’, ‘A’, ‘S’, ‘D’) to move | Key: ‘D’ | Character moves right. | Character moves right | Passed |
| 03 | Failing | User presses any other alphabetical keys, that is not ‘W’, ‘A’, ‘S’ or ‘D’. | Key: ‘Q’ | System displays error message: “Invalid key pressed. Use the movement keys to move your character” | System displays error message: “Invalid key pressed. Use the movement keys to move your character” | Passed |
| 04 | Passing | User’s character hits a wall | Character hits ‘X’ | System displays error message: “Invalid movement. Please try again” | System displays error message: “Invalid movement. Please try again” | Passed |
| 05 | Passing | User reaches the End | Character reaches ‘B’ | System displays message: “Congratulations. You have solved the maze”. | System displays message: “Congratulations. You have solved the maze”. | Passed |
| 06 | Failing | User did not load file. | Filename: | System display error message: “File not selected. Please load a maze file” | System display error message: “File not selected. Please load a maze file” | Passed |
| 07 | Failing | User did not load correct filetype. | Filename: “Maze.docx” | System display error message: “Incorrect file type selected. Please load the correct file type.” | System display error message: “Incorrect file type selected. Please load the correct | Passed |

**Test Scenario Group: Configure Maze (Not to be implemented)**

**Test Case Description: Configure Maze from selected file**

**Prerequisite:** File must be loaded before configuration

**Post-requisite:** Selected maze can be configured

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| **Test Scenario** | **Passing/Failing Test Case** | **Action(s)** | **Input** | **Expected Output** | **Actual Output** | **Test Result** |
| 01 | Passing | User proceeds to configure maze with file loaded | Filename: maze.csv | System display menu for maze configuration with selected maze file. |  |  |
| 02 | Passing | User creates object | Enter option: 1 | System display ‘X’ to allow user to place object. |  |  |
|  | Passing | User moves object with valid key (eg: ‘W’, ‘A’, ‘S’, ‘D’) | Key: ‘W’ | Object moves up |  |  |
|  | Passing | User moves object with valid key (eg: ‘W’, ‘A’, ‘S’, ‘D’) | Key: ‘A’ | Object moves left. |  |  |
|  | Passing | User moves object with valid key (eg: ‘W’, ‘A’, ‘S’, ‘D’) | Key: ‘S’ | Object moves down. |  |  |
|  | Passing | User moves object with valid key (eg: ‘W’, ‘A’, ‘S’, ‘D’) | Key: ‘D’ | Object moves right. |  |  |
|  | Failing | User moves object with invalid key | Key: ‘Q’ | System displays error message: “Invalid key pressed. Use the movement keys to move the object” |  |  |
|  | Passing | User places object | User press enter | System display message: “Object has been placed” |  |  |