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Test case: main_menu.py

Test Scenario	Test Description	Test Value	Expected Outcome	Actual Outcome	Result
1 Test case is Passing or Failing? <mark>Failing</mark>	To test inputting a -Letter -Symbol -Symbol + Letter -Letter + Number -Symbol + Number	Enter your option: "s" Enter your option: "!" Enter your option: "s!" Enter your option: "1s" Enter your option: "@s"	Display error message: "Invalid syntax. Enter 0-4 Please enter option 1 first to load the file."	Display error message: Invalid syntax. Enter 0-4 Please enter option 1 first to load the file.	Pass
2 Test case is Passing or Failing? <mark>Failing</mark>	To test Input is not within 0,1,2,3,4	Enter your option: "5"	Display error message: "Invalid syntax. Enter 0-4 Please enter option 1 first to load the file."	Display: "Invalid syntax. Enter 0-4 Please enter option 1 first to load the file."	Pass

3 Test case is Passing or Failing? <mark>Failing</mark>	To test when enter without input any numbers, letters, symbols	Enter your option: " "	Display error message: "Invalid syntax. Enter 0-4 Please enter option 1 first to load the file."	Display error message: "Invalid syntax. Enter 0-4 Please enter option 1 first to load the file."	Pass
4 Test case is Passing or Failing? <mark>Passing</mark>	To test the function of "Read and load maze from file"	Enter your option: "1"	Display "Option [1] Read and load maze from file" Prompt: "Enter the name of the data file:"	Display "Option [1] Read and load maze from file" Prompt: "Enter the name of the data file:"	Pass
5 Test case is Passing or Failing? <mark>Passing</mark>	To test able to display option 2 once the main menu is already	Enter your option: "2"	Display "Please enter option 1 first to load the file." Display "Enter your input:"	Display "Please enter option 1 first to load the file." Display "Enter your input:"	Pass
6 Test case is Passing or Failing? <mark>Passing</mark>	To test able to display option 3 once the main menu is already	Enter your option: "3"	Display "Please enter option 1 first to load the file." Display "Enter your input:"	Display "Please enter option 1 first to load the file." Display "Enter your input:"	Pass

7	To test able to display option 4 once the main menu is already	Enter your option: "4"	Display "Please enter option 1 first to load the file." Display "Enter your input:"	Display "Please enter option 1 first to load the file." Display "Enter your input:"	Pass
Test case is Passing or Failing? <mark>Passing</mark>					

7/7 Test cases -> Passed

Failing: 3

Passing: 4

Acceptance Test Case for main_menu.py

Results: Passed, the actual outcome matched the expected outcome.

```
Main Menu
=========
[1] Read and load maze from file
[2] View Maze
[3] Play maze game
[4] Configure current maze

[0] Exit Maze

Enter your input:s
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:!
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:s!
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:1s
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:@s
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:5
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:
Invalid syntax. Enter 0-4
Please enter option 1 first to load the file.
Enter your input:1

Option [1] Read and load maze from file

Enter the name of the data file:
```

```
Main Menu
=========
[1] Read and load maze from file
[2] View Maze
[3] Play maze game
[4] Configure current maze

[0] Exit Maze

Enter your input:2
Please enter option 1 first to load the file.
Enter your input:3
Please enter option 1 first to load the file.
Enter your input:4
Please enter option 1 first to load the file.
Enter your input:
```

Test case: read_and_load.py

Test Scenario	Test Description	Test Value	Expected Outcome	Actual Outcome	Result
1 Test case is Passing or Failing? Failing	To test is it able to load the play maze game diagram/ figure Without entering the option 1 "maze.csv" first	Enter your input:3	Display "Enter your input:3 Please enter option 1 first to load the file."	Display "Enter your input:3 Please enter option 1 first to load the file."	Pass
2 Test case is Passing or Failing? Failing	To test when enter the wrong file name at the "Enter the name of the data file:"	Enter the name of the data file: "game"	Display error message "Error: please key in the correct name of the data file Display "enter anything to return to Main Menu"	Display error message "Error: please key in the correct name of the data file Display "enter anything to return to Main Menu"	Pass
3 Test case is	To test when enter the correct file	Enter the name of the data	Display "Number of lines read: 8"	Display "Number of lines read: 8" Display	Pass

Passing or Failing?	name at the "Enter the name of the data file:"	file: "maze.csv"	Display "Enter anything to return to Main Menu"	"Enter anything to return to Main Menu"	
Passing					

3/3 Test case -> Passed

Failing: 2

Passing: 1

Acceptance Test Case for read_and_load.py

Results: Passed, the actual outcome matched the expected outcome.

```
Main Menu
=========
[1] Read and load maze from file
[2] View Maze
[3] Play maze game
[4] Configure current maze

[0] Exit Maze

Enter your input:3
Please enter option 1 first to load the file.
Enter your input:1

Option [1] Read and load maze from file

Enter the name of the data file:game.csv

Error: please key in the correct name of the data file

Enter anything to return to Main Menu

Enter your input:1

Option [1] Read and load maze from file

Enter the name of the data file:maze.csv
Number of lines reads: 8

Enter anything to return to Main Menu
```

Test case: View_Maze.py

Test Scenario	Test Description	Test Value	Expected Outcome	Actual Outcome	Result
1 Test case is Passing or Failing? Passing	To test whether the maze game application displays option 2 display correctly after I inputted option1	Enter your option: "2"	Display Enter your input:2 ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']	Display Enter your input:2 ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']	Pass
2 Test case is Passing or Failing? Passing	To test whether the maze game application displays option 3 display correctly after I inputted option1	Enter your option: "3"	Display "============================= ========= ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Location of Start (A) = (Row 1, Column 6) Location of End (B) = (Row 7, Column 1) Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Display "========================== ================ ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Location of Start (A) = (Row 1, Column 6) Location of End (B) = (Row 7, Column 1) Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Pass

3 Test case is Passing or Failing? Passing	To test whether the maze game application displays option 4 display correctly after I inputted option1	Enter your option: "4"	Display: Enter your input:4 ======================================= ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	Display: Enter your input:4 ======================================= ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	Pass

3/3-> Passed

Passing: 2

Acceptance Test Case for view_maze.py

Results: Passed, the actual outcome matched the expected outcome.

```
Enter your input:1

Option [1] Read and load maze from file

Enter the name of the data file:maze.csv
Number of lines reads: 8

Enter anything to return to Main Menu

Enter your input:2
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Enter your input:3
========================================
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Location of Start (A) = (Row 1, Column 6)
Location of End (B) = (Row 7, Column 1)

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:


Enter your input:4
========================================
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Configuration Menu
[1] Create Wall
[2] Create Passageway
[3] Create start point
[4] Create end point
[0] Exit Main Menu

Enter your options to configure: |
```

Test case: play_maze.py

Test Scenario	Test Description	Test Value	Expected Outcome	Actual Outcome	Result
1 Test case is Passing or Failing? <mark>Passing</mark>	To test is the movement of the game maze able to move LEFT.	Press "A"	Display " Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'A', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'A', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Pass
2 Test case is Passing or Failing? <mark>Passing</mark>	To test is the movement of the game maze able to move RIGHT.	Press "D"	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Pass
3 Test case is	To test is the movement of the	Press "S"	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'A', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'A', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']	Pass

Passing or Failing? <mark>Passing</mark>	game maze able to move DOWN.		['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	
4 Test case is Passing or Failing? <mark>Passing</mark>	To test is the movement of the game maze able to move UP.	Press "W"	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'A', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Display "Move Successful! ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'A', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Pass
5 Test case is Passing or Failing? <mark>Passing</mark>	To test ending the game maze for directing to Main Menu.	Press "M"	Display "Enter your input:"	Display "Enter your input:"	Pass
6 Test case is Passing or Failing? <mark>Failing</mark>	To test is the game maze able to play maze game by keying on the keyboard - numbers, letters, symbol other than letters such as W, A, S, D, M.	Press "1" Press "b" Press "#" Press "8"	Display prompting "Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Display prompting "Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:"	Pass

5/5-> Passed

Passing: 4

Failing: 1

Acceptance Test Case for play_maze.py

Results: Passed, the actual outcome matched the expected outcome.


```
*Python 3.8.0 Shell*                                       —    □    ×
File  Edit  Shell  Debug  Options  Window  Help
Enter your input:3
========================================
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Location of Start (A) = (Row 1, Column 6)
Location of End (B) = (Row 7, Column 1)

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
A
Move Successful!
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'A', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
D
Move Successful!
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
S
```

```
Enter your input:3
======================================
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'A', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Location of Start (A) = (Row 1, Column 5)
Location of End (B) = (Row 7, Column 1)

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
1

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
b

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
#

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
8

Press 'W' for UP, 'A' for LEFT, 'S' for DOWN, 'D' for RIGHT, 'M' for MAIN MENU:
```

Test case: configure_maze.py

Test Scenario	Test Description	Test Value	Expected Outcome	Actual Outcome	Result
1 Test case is Passing or Failing? Passing	To test the input option 1, Create Wall as the option to configure	Press "1"	Display: ============================== ========== ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Display: =========================== =============== ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Pass
		Press "enter" at the 'B' to	Display "Enter Row:" Display "Enter Col:"	Display "Enter Row:" Display "Enter Col:"	

		return to Configure Menu. 'M' to return to Main Menu:		Display ========================== ==========	
			Display ========================== ==========	['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']	
		Input Enter Row: "1" Enter Col:"3"	['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	
2 Test case is Passing or Failing? Passing	To test return to Configure Menu by typing "B"	'B' to return to Configure Menu. 'M' to return to Main Menu: B	Display ========================== ========== ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ========================== ========== [1] Create Wall [2] Create Passageway [3] Create start point	Display ========================== ============== ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ========================== ============== [1] Create Wall [2] Create Passageway [3] Create start point	Pass

			[4] Create end point [0] Exit Main Menu Enter your options to configure:	[4] Create end point [0] Exit Main Menu Enter your options to configure:	
3 Test case is Passing or Failing? Passing	To test return to the main menu by typing "M"	'B' to return to Configure Menu. 'M' to return to Main Menu: M	Display "Enter your input:"	Enter your input:	Pass
4 Test case is Passing or Failing? Passing	To test the input option 2, Create Passenger as the option to configure as the option to configure	Press "2"	Display ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Display ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Pass
		Press "enter" at the 'B' to return to Configure Menu. 'M' to return to Main Menu:	Display "Enter Row:" Display "Enter Col:"	Display "Enter Row:" Display "Enter Col:"	

		Input Enter Row: "4" Enter Col:"4"	Display: ======================================= ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ======================================= [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	Display: ==================================== ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ==================================== [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	
5 Test case is Passing or Failing? ==Passing==	To test the input option 3, Create start point as the option to configure as the option to configure	Press "3"	Display ======================================= ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Display ==================================== ['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Pass

		Press "enter" at the 'B' to return to Configure Menu. 'M' to return to Main Menu:	Display "Enter Row:" Display "Enter Col:"	Display "Enter Row:" Display "Enter Col:"	
		Input Enter Row: "0" Enter Col:"1"	Display: ====================================== ['X', 'A', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ====================================== [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	Display: ==================================== ['X', 'A', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ==================================== [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	
6 Test case is Passing or Failing? ==Passing==	To test the input option 4, Create start point as the option to configure as the option to configure	Press "4"	Display: ====================================== ['X', 'A', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']	Display: ==================================== ['X', 'A', 'X', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']	Pass

			Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	Press Enter if you wish to change an item. 'B' to return to ConfigureMenu. 'M' to return to Main Menu:	
		Press "enter" at the 'B' to return to Configure Menu. 'M' to return to Main Menu:	Display "Enter Row:" Display "Enter Col:"	Display "Enter Row:" Display "Enter Col:"	
		Input Enter Row: "0" Enter Col: "2"	Display: ====================================== ['X', 'A', 'B', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'O', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ====================================== [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	Display: ====================================== ['X', 'A', 'B', 'X', 'X', 'X', 'X', 'X'] ['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X'] ['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X'] ['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X'] ['X', 'O', 'X', 'X', 'X', 'X', 'X', 'X'] Configuration Menu ====================================== [1] Create Wall [2] Create Passageway [3] Create start point [4] Create end point [0] Exit Main Menu Enter your options to configure:	
7 Test case is	To test the input option 0 for to exit main menu	Enter your options to configure: "1"	Display "Enter your input:"	Display "Enter your input:"	Pass

Passing or Failing? **Passing**					
8 Test case is Passing or Failing? **Failing**	To test the input letters, numbers, symbols that is not part of the option to configure	Enter your options to configure: "a" Enter your options to configure: "b" Enter your options to configure: "6" Enter your options to configure: "8" Enter your options to configure: "%" Enter your options to configure: "#e"	Display "Please enter a valid value".	Display "Please enter a valid value".	Pass
9 Test case is Passing or Failing? **Failing**	To test input nothing	Enter your options to configure: " "	Display "Please enter a valid value".	Display "Please enter a valid value".	Pass

9/9-> Passed

Passing: 7

Failing: 2

Acceptance Test Case for configure_maze.py

Results: Passed, the actual outcome matched the expected outcome.

```
Enter your options to configure: 1
======================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Press Enter if you wish to change an item.
'B' to return to ConfigureMenu.
'M' to return to Main Menu:
Enter Row:1
Enter Col:3
======================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
```

```
Enter your options to configure: 2
=========================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Press Enter if you wish to change an item.
'B' to return to ConfigureMenu.
'M' to return to Main Menu:
Enter Row:4
Enter Col:4
=========================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Configuration Menu
=========================================

[1] Create Wall
[2] Create Passageway
[3] Create start point
[4] Create end point
[0] Exit Main Menu

Enter your options to configure: 3
=========================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Press Enter if you wish to change an item.
'B' to return to ConfigureMenu.
'M' to return to Main Menu:
Enter Row:0
Enter Col:1
=========================================

['X', 'A', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Configuration Menu
=========================================

[1] Create Wall
[2] Create Passageway
[3] Create start point
[4] Create end point
[0] Exit Main Menu
```

```
Enter your options to configure: 4
========================================

['X', 'A', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X']
['O', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Press Enter if you wish to change an item.
'B' to return to ConfigureMenu.
'M' to return to Main Menu:
Enter Row:0
Enter Col:2
========================================

['X', 'A', 'B', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'X', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'O', 'X', 'X', 'X', 'X', 'X', 'X']

Configuration Menu
========================================

[1] Create Wall
[2] Create Passageway
[3] Create start point
[4] Create end point
[0] Exit Main Menu

Enter your options to configure: 1
```

```
Enter your options to configure: a
Please enter a valid value.
Enter your options to configure: b
Please enter a valid value.
Enter your options to configure: 6
Please enter a valid value.
Enter your options to configure: 8
Please enter a valid value.
Enter your options to configure: %
Please enter a valid value.
Enter your options to configure: #e
Please enter a valid value.
Enter your options to configure:
Please enter a valid value.
Enter your options to configure:
```

```
Enter your options to configure: 1
=======================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Press Enter if you wish to change an item.
'B' to return to ConfigureMenu.
'M' to return to Main Menu:B
=======================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Configuration Menu
=======================================

[1] Create Wall
[2] Create Passageway
[3] Create start point
[4] Create end point
[0] Exit Main Menu

Enter your options to configure: |


Enter your options to configure: 1
=======================================

['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']
Press Enter if you wish to change an item.
'B' to return to ConfigureMenu.
'M' to return to Main Menu:m
Enter your input:4
=======================================
['X', 'X', 'X', 'X', 'X', 'X', 'X', 'X']
['X', 'O', 'O', 'O', 'X', 'O', 'A', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'X', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'X', 'O', 'X']
['X', 'O', 'X', 'O', 'X', 'O', 'O', 'X']
['X', 'O', 'X', 'O', 'O', 'O', 'X', 'X']
['X', 'B', 'X', 'X', 'X', 'X', 'X', 'X']

Configuration Menu
=======================================

[1] Create Wall
[2] Create Passageway
[3] Create start point
[4] Create end point
[0] Exit Main Menu

Enter your options to configure: 0
Enter your input:|
```

Test Analysis

Please refer to the QA_MonitoringResult_and_Analysis.xlsx excel sheet.