Black Box Test Plan for MapChanger

The text in bold in the **Description** column represents the test inputs to the program. You can stop program execution by pressing Ctrl+C.

Here are the first 10 random numbers when using a seed of 1 (and bound of 11): 4, 6, 8, 8, 9, 2, 6, 3, 1, 4

HINT: The Unix diff command may be used to tell whether or not two files are identical. For example,
```
diff map.txt UncoveredMap.txt
```

Test ID	Description	Expected Results	Actual Results
testInvalidAction Author: Dr. Balik	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: **Obscure** (Ctrl+C to stop execution)	Invalid action. User is reprompted to enter action	Invalid action. User is reprompted to enter action
testQuit Author: Dr. Balik	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: **q**	Program quits.	Program quits.
testObscureSingleLineWithAllCharacters Author: Dr. Balik	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: **O** Input file: **test-files/Test1.txt** Output file: **test-files/Test1Obscure.txt** Do you want to use a seed? (Y or N): **Y** Enter the seed value: **1** The map has been obscured. Enter O-bscure, U-ncover, or Q-uit: **q**	Test1Obscure.txt is created in the test-files directory. Test1Obscure.txt contents is the same as Test1Obscure_Exp.txt contents: `+%/&\[~[X`	Test1Obscure.txt is created in the test-files directory. Test1Obscure.txt contents is the same as Test1Obscure_Exp.txt contents: `+%/&\[~[X`

testUncoverSingleLineWithAllCharacters Author: Dr. Balik	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: **u** Input file: **test-files/Test1Obscure_Exp.txt** Output file: **test-files/Test1Uncover.txt** The map has been uncovered. Enter O-bscure, U-ncover, or Q-uit: **q**	Test1Uncover.txt is created in the test-files directory. Test1Uncover.txt contains exactly the same characters as Test1.txt: `+ / \ ~ X`	Test1Uncover.txt is created in the test-files directory. Test1Uncover.txt contains exactly the same characters as Test1.txt: `+ / \ ~ X`
testUncoverSingleLineWithNothingToObscure Author: Ryan Tillis	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: u Input file: **test-files/Test2.txt** Output file: **test-files/Test2Obscure.txt** Do you want to use a seed? (Y or N): **Y** Enter the seed value: **1** The map has been obscured. Enter O-bscure, U-ncover, or Q-uit: **q**	Test2Obscure.txt is created in the test-files directory. Test1Uncover.txt contains exactly the same characters as Test2.txt: `+/\/\~X`	Test2Obscure.txt is created in the test-files directory. Test1Uncover.txt contains exactly the same characters as Test2.txt: `+/\/\~X`
testUncoverSingleLineWithNothingToUncover Author: Ryan Tillis	**Preconditions: MapChanger program started** **HEADER** Enter O-bscure, U-ncover, or Q-uit: u Enter Input File: **test-files/Test2.txt** Output file: **test-files/Test2Uncovered.txt** The map has been uncovered. Enter O-bscure, U-ncover, or Q-uit: **q**	Test2Uncovered.txt is created in the test-files directory. Test2Uncover.txt contains exactly the same characters as Test2.txt: `+/\/\~X`	Test2Uncovered.txt is created in the test-files directory. Test1Uncover.txt contains exactly the same characters as Test2.txt: `+/\/\~X`

testUncoverSingleLineOnlyObscure Author: Ryan Tillis	**Preconditions: MapChanger program started** **HEADER** Enter O-bscure, U-ncover, or Q-uit: u Enter Input File: **test-files/Test3.txt** Output file: **test-files/Test3Obscure.txt** Do you want to use a seed? (Y or N): **Y** Enter the seed value: **1** The map has been obscured. Enter O-bscure, U-ncover, or Q-uit: **q**	Test2Obscure.txt is created in the test-files directory. Test2Obscure.txt contents is the same as Test2Obscure_Exp.txt contents: `%&[[]#&$@%`	Test2Obscure.txt is created in the test-files directory. Test2Obscure.txt contents is the same as Test2Obscure_Exp.txt contents: `%&[[]#&$@%`
testUncoverSingleLineOnlyUncover Author: Ryan Tillis	**Preconditions: MapChanger program started** **HEADER** Enter O-bscure, U-ncover, or Q-uit: u Enter Input File: **test-files/Test3Obscure.txt** Output file: **test-files/Test3Uncover.txt** The map has been uncovered. Enter O-bscure, U-ncover, or Q-uit: **q**	Test3Uncovered.txt is created in the test-files directory. Test3Uncover.txt contains exactly the same characters as Test3.txt: " "	Test3Uncovered.txt is created in the test-files directory. Test3Uncover.txt contains exactly the same characters as Test3.txt: " "

testObscureSingleLineSingleCharacterPerLineWithSpaces
 	
Author:
Ryan Tillis
	Preconditions: MapChanger program started
	
	HEADER
	Enter O-bscure, U-ncover, or Q-uit: u
	Enter Input File: **test-files/Test4.txt**
	Output file: **test-files/Test4Obscure.txt**
	Do you want to use a seed? (Y or N): **Y**
	Enter the seed value: **1**
	The map has been obscured.
	
	Enter O-bscure, U-ncover, or Q-uit: **q**
		Test4Obscure.txt is created in the test-files directory.
		Test4Obscure.txt contents is the same as Test4Obscure_Exp.txt contents:
		`%+&`
		`[%[`
		`]/#`
		`&&$`
		`@\%`
		`&[!`
		`]~`
		`#[#`
		`@X!`
			Test4Obscure.txt is created in the test-files directory.
			Test4Obscure.txt contents is the same as Test4Obscure_Exp.txt contents:
			`%+&`
			`[%[`
			`]/#`
			`&&$`
			`@\%`
			`&[!`
			`]~`
			`#[#`
			`@X!`

testUncoverSingleLineSingleCharacterPerLineWithSpaces
 	
Author:
Ryan Tillis
	Preconditions: MapChanger program started
	
	HEADER
	Enter O-bscure, U-ncover, or Q-uit: u
	Enter Input File: **test-files/Test4Obscure.txt**
	Output file: **test-files/Test4Uncover.txt**
	The map has been uncovered.
	
	Enter O-bscure, U-ncover, or Q-uit: **q**
		Test4Uncover.txt is created in the test-files directory.
		Test4Uncover.txt contents is the same as Test4.txt contents:
		`  +`
		`  /`
		`  \`
		`  ~`
		`  X`
			Test4Uncover.txt is created in the test-files directory.
			Test4Uncover.txt contents is the same as Test4.txt contents:
			`  +`
			`  /`
			`  \`
			`  ~`
			`  X`

testNoInputFile Author: Ryan Tillis	**Preconditions: MapChanger program started** **HEADER** Enter O-bscure, U-ncover, or Q-uit: o Enter Input File: **F** F (No such file or directory) Enter Input File: (Ctrl+C to stop execution)	Invalid action. Console prints that it isn't a valid file or directory.	Invalid action. Console prints that it isn't a valid file or directory.

testOutputOverwrite Author: Ryan Tillis	**Preconditions: MapChanger program started** **HEADER** Enter O-bscure, U-ncover, or Q-uit: o Enter Input File: **test-files/Test1.txt** Output File: **test-files/Test1Obscure.txt** File already exists, do you want to overwrite (y/n)? **y** Enter the seed value: **1** The map has been obscured. Enter O-bscure, U-ncover, or Q-uit: **q**	Test1Obscure.txt is created in the test-files directory. Test1Obscure.txt contents is the same as Test1Obscure_Exp.txt contents: `+%/&\[~[X`	Test1Obscure.txt is created in the test-files directory. Test1Obscure.txt contents is the same as Test1Obscure_Exp.txt contents: `+%/&\[~[X`
testObscureLargeFile Author: Dr. Balik	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: **o** Input file: **test-files/map.txt** Output file: **test-files/obscured_map.txt** Do you want to use a seed? (Y or N): **Y** Enter the seed value: **1** The map has been obscured. Enter O-bscure, U-ncover, or Q-uit: **q**	ObscuredMap.txt is created in the test-files directory. ObscuredMap.txt contains exactly the same characters as ObscuredMap_Exp.txt	ObscuredMap.txt is created in the test-files directory. ObscuredMap.txt contains exactly the same characters as ObscuredMap_Exp.txt
testUncoverLargeFile Author: Dr. Balik	Preconditions: MapChanger program started **HEADER** Enter O-bscure, U-ncover, or Q-uit: **U** Input file: **test-files/obscured_map.txt** Output file: **test-files/UncoveredMap.txt** The map has been uncovered. Enter O-bscure, U-ncover, or Q-uit: **q**	UncoveredMap.txt is created in the test-files directory. UncoveredMap.txt contains exactly the same characters as map.txt	UncoveredMap.txt is created in the test-files directory. UncoveredMap.txt contains exactly the same characters as map.txt