

System Test Plan

Instructions. In this section, you must provide your system test plan with at least 5 test cases. **If you want to provide more than 5 test cases, add an appendix at the end of this document with the 6th, 7th, etc. test cases so that page numbers for all sections match the required template!**

Make sure:

- You provide your sample test data
- Test IDs are uniquely identified and descriptive
- Test descriptions are fully specified with complete inputs, specific values, and preconditions
 - Be sure to provide SPECIFIC INPUTs and VALUEs so that your test cases are repeatable
- Expected results are fully specified with specific output values
- All tests cover scenarios based on the problem statement
- All tests cover unique scenarios for the system
- All strategies for system testing are demonstrated in the tests (testing equivalence classes, testing boundary values, testing exceptions/unexpected inputs)

Test Data:

Our system tests require the following files named *christmas.txt*, *christmasCompressed.txt*, and *snow.txt*:

Our program will change the contents of the files with each run. Make sure to change the file back to the original contents after each test case!

christmas.txt

We wish you a merry Christmas

We wish you a merry Christmas

We wish you a merry Christmas and a happy new year

Good tidings we bring to you and your kin

christmasCompressed.txt

We wish you a merry Christmas

1 2 3 4 5 6

1 2 3 4 5 6 and 4 happy new year

Good tidings we bring to 3 7 your kin

snow.txt

snow snow snow snow snow snow snow snow snow snow snow

Start the program by right clicking on the CompressUI.java file, and clicking the 'run' option.

| Test ID | Description | Expected Results | Actual Results |
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| Test #1 testID: testLoadFileSuccess Strategy: (Equivalence class - loading file to be compressed) | Preconditions: <ul style="list-style-type: none"> - UI.java has been loaded successfully. - The file <i>christmas.txt</i> is navigable from the project directory. Steps: <ol style="list-style-type: none"> 1. <i>Check Results</i> 2. Type in the address of christmas.txt 3. Press enter 4. <i>Check Results</i> | <p>A message is output stating "Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit."</p> <p>A message is output stating: "Would you like to compress or decompress christmas.txt? Type C to compress or D to decompress, and press enter."</p> | <p>"Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit." is printed in the command line</p> <p>"Would you like to compress or decompress christmas.txt? Type C to compress or D to decompress, and press enter." is printed in the command line</p> |

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| <p>Test #2</p> <p>testID:</p> <p>testCompressValidFile</p> <p>Strategy:</p> <p>(Equivalence class - compressing file with 4 valid lines of input)</p> | <p>Preconditions:</p> <ul style="list-style-type: none"> - testLoadFileSuccess has passed. <p>Steps:</p> <ol style="list-style-type: none"> 1. Type in the address of C and press enter. 2. <i>Check Results</i> 3. <i>Check christmas.txt</i> | <p>The following message is outputted:</p> <p>Compressed Output {</p> <p>Line 1: We wish you a merry Christmas</p> <p>Line 2: 1 2 3 4 5 6</p> <p>Line 3: 1 2 3 4 5 6 and 4 happy new year</p> <p>Line 4: Good tidings we bring to 3 7 your kin</p> <p>}</p> <p>Is printed in the command line</p> | <p>Compressed Output {</p> <p>Line 1: We wish you a merry Christmas</p> <p>Line 2: 1 2 3 4 5 6</p> <p>Line 3: 1 2 3 4 5 6 and 4 happy new year</p> <p>Line 4: Good tidings we bring to 3 7 your kin</p> <p>}</p> <p>Is printed in the command line</p> |
| <p>Test #3</p> <p>testID:</p> <p>testLoadMissingFile</p> | <p>Preconditions:</p> <ul style="list-style-type: none"> - UI.java has been loaded successfully. - There is no file named DoesNotExist.txt. <p>Steps:</p> | <p>A terminal message states "An error occurred when processing ./DoesNotExist.txt. Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit."</p> | <p>"An error occurred when processing ./DoesNotExist.txt. Please type in the address of the file you would like to</p> |

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| <p>Strategy:</p> <p>(Exception/unexpected input - trying to load from a nonexistent file)</p> | <ol style="list-style-type: none"> 1. Type in <code>./DoesNotExist.txt</code> and press enter. 2. <i>Check Results</i> | | <p>compress or decompress. For this program, press enter to enter your input, and input Q to quit." is printed in the command line</p> |
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| <p>Test #4</p> <p>testID:</p> <p>testDecompressValidFile</p> <p>Strategy:</p> <p>(Equivalence class - decompressing file with 4 valid lines of input, 17 unique words, and 7 compressed words.)</p> | <p>Preconditions:</p> <ul style="list-style-type: none"> - UI.java has been loaded successfully. - The file christmasCompressed.txt is navigable from the project directory. <p>Steps:</p> <p><i>Check Results</i></p> <p>Type in the address of christmasCompressed.txt and press enter.</p> <p><i>Check Results</i></p> <p>Type in D and press enter.</p> <p><i>Check Results</i></p> <p><i>Check christmasCompressed.txt</i></p> | <p>A message is output stating "Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit."</p> <p>A terminal message states "Would you like to compress or decompress christmasCompressed.txt? Type C to compress or D to decompress, and press enter."</p> <p>The following message is outputted:</p> <p>Decompressed Output {</p> <p>Line 1: We wish you a merry Christmas</p> <p>Line 2: We wish you a merry Christmas</p> <p>Line 3: We wish you a merry Christmas and a happy new year</p> <p>Line 4: Good tidings we bring to you and your kin</p> <p>}</p> | <p>"Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit." Is printed in the command line</p> <p>"Would you like to compress or decompress christmasCompressed.txt? Type C to compress or D to decompress, and press enter." Is printed in the command line</p> <p>Decompressed Output {</p> <p>Line 1: We wish you a merry Christmas</p> |
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| | | | <p>Line 2: We wish you a merry Christmas</p> <p>Line 3: We wish you a merry Christmas and a happy new year</p> <p>Line 4: Good tidings we bring to you and your kin</p> <p>} is printed in the command line</p> |
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| <p>Test #5</p> <p>testID:</p> <p>testCompressRepeated</p> <p>Strategy:</p> <p>(Boundary value: Compressing file with 1 word repeated 12 times)</p> | <p>Preconditions:</p> <ul style="list-style-type: none"> - UI.java has been loaded successfully. - The file snow.txt is navigable from the project directory. <p>Steps:</p> <p><i>Check Results</i></p> <p>Type in the address of snow.txt and press enter .</p> <p><i>Check Results</i></p> <p>Type C and press enter.</p> <p><i>Check Results</i></p> <p><i>Check snow.txt</i></p> | <p>A message is output stating "Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit."</p> <p>A terminal message states "Would you like to compress or decompress snow.txt? Type C to compress or D to decompress, and press enter."</p> <p>The following message is outputted:</p> <p>Compressed Output {</p> <p>Line 1: snow 1 1 1 1 1 1 1 1 1 1 1 1</p> <p>}</p> | <p>"Please type in the address of the file you would like to compress or decompress. For this program, press enter to enter your input, and input Q to quit." is printed in the command line.</p> <p>"Would you like to compress or decompress snow.txt? Type C to compress or D to decompress, and press enter." is printed in the command line</p> <p>Compressed Output {</p> <p>Line 1: snow 1 1 1 1 1 1 1 1 1 1 1 1</p> <p>} is printed in the command line</p> |
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