

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:

For our system test cases, we will use the 5 test files. The first is the following test file named tcp.txt,

```
The Collected Poems
Sylvia Plath
In ruck and quibble of courtfolk
This giant hulked I tell you on her scene
With hands like derricks
Looks fierce and black as rooks
Why, all the windows broke when he stalked in
Her dainty acres he ramped through
And used her gentle doves with manners rude
I do not know
What fury urged him slay
```

Her antelope who meant him naught but good
She spoke most chiding in his ear
Till he some pity took upon her crying
Of rich attire
He made her shoulders bare
And solaced her but quit her at cocks crowing
A hundred heralds she sent out
To summon in her slight all doughty men
Whose force might fit
Shape of her sleep her thought
None of that greenhorn lot matched her bright crown
So she is come to this rare pass
Whereby she treks in blood through sun and squall
And sings you thus
How sad alas it is
To see my people shrunk so small so small

The second is another text file called `compressed_tcp_inputx.txt`,

The Collected Poems
Sylvia Plath
In ruck and quibble of courtfolk
This giant hulked I tell you on her scene
With hands like derricks
Looks fierce 8 black as rooks
Why, all the windows broke when he stalked in
Her dainty acres 37 ramped through
And used 19 gentle doves with manners rude
15 do not know
What fury urged him slay
40 antelope who meant 61 naught but good
She spoke most chiding 39 his ear
Till 37 some pity took upon 19 crying
Of rich attire
He made 19 shoulders bare
46 solaced 19 69 quit 19 at cocks crowing
A hundred heralds she sent out
To summon 39 19 slight 32 doughty men

Whose force might fit
Shape 10 19 sleep 19 thought
None 10 that greenhorn lot matched 19 bright crown
So 106 is come to this rare pass
Whereby 106 treks 39 blood 45 sun 8 squall
46 sings 17 thus
How sad alas it 138
109 see my people shrunk so small 167 168

The third is an expected output file after compressing tcp.txt called compressed_tcp.txt,

```
Compressed Output {  
  Line 1: The Collected Poems  
  Line 2: Sylvia Plath  
  Line 3: In ruck and quibble of courtfolk  
  Line 4: This giant hulked I tell you on her scene  
  Line 5: With hands like derricks  
  Line 6: Looks fierce 8 black as rooks  
  Line 7: Why, all the windows broke when he stalked in  
  Line 8: Her dainty acres 37 ramped through  
  Line 9: And used 19 gentle doves with manners rude  
  Line 10: 15 do not know  
  Line 11: What fury urged him slay  
  Line 12: 40 antelope who meant 61 naught but good  
  Line 13: She spoke most chiding 39 his ear  
  Line 14: Till 37 some pity took upon 19 crying  
  Line 15: Of rich attire  
  Line 16: He made 19 shoulders bare  
  Line 17: 46 solaced 19 69 quit 19 at cocks crowing  
  Line 18: A hundred heralds she sent out  
  Line 19: To summon 39 19 slight 32 doughty men  
  Line 20: Whose force might fit  
  Line 21: Shape 10 19 sleep 19 thought  
  Line 22: None 10 that greenhorn lot matched 19 bright crown  
  Line 23: So 106 is come to this rare pass  
  Line 24: Whereby 106 treks 39 blood 45 sun 8 squall  
  Line 25: 46 sings 17 thus  
  Line 26: How sad alas it 138
```

```
Line 27: 109 see my people shrunk so small 167 168
```

```
}
```

The fourth is an expected output file after decompressing compressed_tcp_input.txt called decompressed_tcp.txt,

```
Decompressed Output {
```

```
Line 1: The Collected Poems
```

```
Line 2: Sylvia Plath
```

```
Line 3: In ruck and quibble of courtfolk
```

```
Line 4: This giant hulked I tell you on her scene
```

```
Line 5: With hands like derricks
```

```
Line 6: Looks fierce and black as rooks
```

```
Line 7: Why, all the windows broke when he stalked in
```

```
Line 8: Her dainty acres he ramped through
```

```
Line 9: And used her gentle doves with manners rude
```

```
Line 10: I do not know
```

```
Line 11: What fury urged him slay
```

```
Line 12: Her antelope who meant him naught but good
```

```
Line 13: She spoke most chiding in his ear
```

```
Line 14: Till he some pity took upon her crying
```

```
Line 15: Of rich attire
```

```
Line 16: He made her shoulders bare
```

```
Line 17: And solaced her but quit her at cocks crowing
```

```
Line 18: A hundred heralds she sent out
```

```
Line 19: To summon in her slight all doughty men
```

```
Line 20: Whose force might fit
```

```
Line 21: Shape of her sleep her thought
```

```
Line 22: None of that greenhorn lot matched her bright crown
```

```
Line 23: So she is come to this rare pass
```

```
Line 24: Whereby she treks in blood through sun and squall
```

```
Line 25: And sings you thus
```

```
Line 26: How sad alas it is
```

```
Line 27: To see my people shrunk so small so small
```

```
}
```

The fifth is an empty text file called empty.txt.

Disclaimer: This implementation uses a console output. So the description and expected results that call for file choosers in the initial proposal will be replaced with console results.

Test ID	Description	Expected Results	Actual Results
<p>Test #1</p> <p>testID: testLoadNonexistingBook</p> <p>Strategy: Exception - trying to load a file that doesn't exist</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • Console program has been loaded successfully. • The file what_file.txt does not exist. <p>Steps:</p> <ol style="list-style-type: none"> 1. When prompted with "What's the name of the file you wanted to load in?", enter "what_file.txt" 	<p>The console program states that the file doesn't exist and continues running so the user can re-enter a file that does exist.</p>	<p>The program re-prompted the user with "The file you entered doesn't exist. Enter another:"</p>

<p>Test #2</p> <p>testID:</p> <p>testLoadBook</p> <p>Strategy:</p> <p>Equivalence Class - loading a book from file</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • CompressionManagerUI console program has been loaded successfully. • The file tcp.txt does exist. <p>Steps:</p> <ol style="list-style-type: none"> 1. When prompted with “What’s the name of the file you wanted to load in?”, enter “tcp.txt” 	<p>The text from tcp.txt is displayed in the console.</p>	<p>The text from tcp.txt was not displayed for the user.</p>
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<p>Test #3</p> <p>testID: testCompressEmptyFile</p> <p>Strategy: Boundary Value - trying to compress a loaded file that's empty</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • CompressionManagerUI console program has been loaded successfully. • The file empty.txt exists. <p>Steps:</p> <ol style="list-style-type: none"> 1. When prompted with "What's the name of the file you wanted to load in?", enter "input/empty.txt" 2. When prompted with "Would you like to compress or decompress the file? Enter '1' to compress. Enter '2' to decompress. Enter 'Q' to quit." and enter 1 	<p>An illegal argument exception is thrown saying "The provided input file is empty."</p>	<p>An illegal argument exception is thrown stating "The provided input file has no text to compress."</p>
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<p>Test #4</p> <p>testID: testCompressValidFile</p> <p>Strategy: Equivalence Class: Compressing text from a file that has been successfully loaded in</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • Test #2 (ID: testLoadBook) is successful <p>Steps:</p> <ol style="list-style-type: none"> 1. When prompted with “Would you like to compress or decompress the file? "Enter '1' to compress. Enter '2' to decompress. Enter 'Q' to quit.” and enter 1 	<p>The text from compressed_tcp.txt is displayed in the console.</p>	<p>The text from compressed_tcp.txt is displayed for the user in the console.</p>
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<p>Test #5</p> <p>testID: testQuitWithoutDoingAnything</p> <p>Strategy:</p> <p>Equivalence Class: tests a valid way of exiting program by loading a file and not compressing or decompressing it.</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • CompressionManagerUI console program has been loaded successfully. • The file tcp.txt does exist. <p>Steps:</p> <ol style="list-style-type: none"> 1. When prompted with "What's the name of the file you wanted to load in?", enter "input/empty.txt" 2. When prompted with "Would you like to compress or decompress the file? Enter '1' to compress. Enter '2' to decompress. Enter 'Q' to quit." and enter Q 	<p>The program quits and tcp.txt is not compressed.</p>	<p>The program exits.</p>
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