

## Black Box Test Plan: Compression program

**Introduction:** Each test case below assumes the **Compression** program is running and that the instructions for running the program have been displayed for the user. The text in bold in the **Description** column represents the test inputs to the program. You can stop program execution by pressing Ctrl+C.

**Test Files: (List each test file below. Submit each file when you submit your project)**

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

Test ID	Description	Expected Results	Actual Results
testInvalidAction  Author: Dr. Balik	Preconditions: Compression program started  **HEADER** Enter C-ompress, D-ecompress, or Q-uit: <b>Compress</b> (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: Compression program started  **HEADER** Enter C-ompress, D-ecompress, or Q-uit: <b>q</b>	Program quits.	Program quits.
testCompressSingleWord	Preconditions: Compression program started	Test1Compress.txt is created in the test-files directory.	Test1Compress.txt is created in the test-files directory.

Author: Dr. Balik	<b>**HEADER**</b> Enter C-ompress, D-decompress, or Q-uit: <b>C</b> Enter input file: <b>test-files/Test1.txt</b> Enter output file: <b>test-files/Test1Compress.txt</b>	Test1Compress.txt is exactly the same as Test1Compress_Exp.txt: +t#@	Test1Compress.txt is exactly the same as Test1Compress_Exp.txt: +t#@
testDecompressSingle Word  Author: Dr. Balik	Preconditions: Compression program started  <b>**HEADER**</b> Enter C-ompress, D-decompress, or Q-uit: <b>d</b> Enter input file: <b>test-files/Test1Compress_Exp.txt</b> Enter output file: <b>test-files/Test1Decompress.txt</b>	Test1Decompress.txt is created in the test-files directory.  Test1Decompress.txt contains exactly the same characters as Test1.txt: mentioning	Test1Decompress.txt is created in the test-files directory.  Test1Decompress.txt contains exactly the same characters as Test1.txt: mentioning
testCompressMulitple Words  Author: Selena Chen	Preconditions: Compression program started  <b>**HEADER**</b> Enter C-ompress, D-decompress, or Q-uit: <b>c</b> Enter input file: <b>test-files/Test2.txt</b> Enter output file: <b>test-files/Test2Compress.txt</b>	Test2Compress.txt is created in the test-files directory.  Test2Compress.txt is exactly the same as Test2Compress_Exp.txt: & act# had ~ equal ~d opposite \$act#	Test2Compress.txt is created in the test-files directory.  Test2Compress.txt is exactly the same as Test2Compress_Exp.txt: & act# had ~ equal ~d opposite \$act#
testDecompressMulitpleWords	Preconditions: Compression program started	Test2Decompress.txt is created in the test-files directory.	Test2Decompress.txt is created in the test-files directory.

Author: Selena Chen	<b>**HEADER**</b> Enter C-ompress, D-eompress, or Q-uit: <b>d</b> Enter input file: <b>test-files/Test2Compress_Exp.txt</b> Enter output file: <b>test-files/Test2Decompress.txt</b>	Test2Decompress.txt contains exactly the same characters as Test2.txt: the action had an equal and opposite reaction	Test2Decompress.txt contains exactly the same characters as Test2.txt: the action had an equal and opposite reaction
testCompressAllSequences  Author: Selena Chen	Preconditions: Compression program started  <b>**HEADER**</b> Enter C-ompress, D-eompress, or Q-uit: <b>c</b> Enter input file: <b>test-files/Test3.txt</b> Enter output file: <b>test-files/Test3Compress.txt</b>	Test3Compress.txt is created in the test-files directory.  Test3Compress.txt is exactly the same as Test3Compress_Exp.txt: & ~ # @ % + \$	Test3Compress.txt is created in the test-files directory.  Test3Compress.txt is exactly the same as Test3Compress_Exp.txt: & ~ # @ % + \$
testDecompressAllSequences  Author: Selena Chen	Preconditions: Compression program started  <b>**HEADER**</b> Enter C-ompress, D-eompress, or Q-uit: <b>d</b> Enter input file: <b>test-files/Test3Compress_Exp.txt</b> Enter output file: <b>test-files/Test3Decompress.txt</b>	Test3Decompress.txt is created in the test-files directory.  Test3Decompress.txt contains exactly the same characters as Test3.txt: the an ion ing tis men re	Test3Decompress.txt is created in the test-files directory.  Test3Decompress.txt contains exactly the same characters as Test3.txt: the an ion ing tis men re
testCompressRepeatSequences	Preconditions: Compression program started	Test4Compress.txt is created in the test-files directory.	Test4Compress.txt is created in the test-files directory.

<p>Author: Selena Chen</p>	<p><b>**HEADER**</b>  Enter C-ompress, D-ecompress, or Q-uit:  <b>c</b>  Enter input file: <b>test-files/Test4.txt</b>  Enter output file:  <b>test-files/Test4Compress.txt</b></p>	<p>Test4Compress.txt is exactly the same as  Test4Compress_Exp.txt:  rat#alization rat#alization</p>	<p>Test4Compress.txt is exactly the same as  Test4Compress_Exp.txt: rat#alization  rat#alization</p>
<p>testDecompressRepeat Sequences</p> <p>Author: Selena Chen</p>	<p>Preconditions: Compression program started</p> <p><b>**HEADER**</b>  Enter C-ompress, D-ecompress, or Q-uit:  <b>d</b>  Enter input file:  <b>test-files/Test4Compress_Exp.txt</b>  Enter output file:  <b>test-files/Test4Decompress.txt</b></p>	<p>Test4Decompress.txt is created in the test-files directory.</p> <p>Test4Decompress.txt contains exactly the same characters as Test4.txt:  rationalization  rationalization</p>	<p>Test4Decompress.txt is created in the test-files directory.</p> <p>Test4Decompress.txt contains exactly the same characters as Test4.txt:  rationalization rationalization</p>
<p>testCompressMultipleLine</p> <p>Author: Selena Chen</p>	<p>Preconditions: Compression program started</p> <p><b>**HEADER**</b>  Enter C-ompress, D-ecompress, or Q-uit:  <b>c</b>  Enter input file: <b>test-files/Test5.txt</b>  Enter output file:  <b>test-files/Test5Compress.txt</b></p>	<p>Test5Compress.txt is created in the test-files directory.</p> <p>Test5Compress.txt is exactly the same as  Test5Compress_Exp.txt: &amp; world war spur\$d &amp; develop+t of electronics components started to become available</p>	<p>Test5Compress.txt is created in the test-files directory.</p> <p>Test5Compress.txt is exactly the same as  Test5Compress_Exp.txt: &amp; world war spur\$d &amp; develop+t of electronics components started to become available</p>

<p>testDecompressMultipleLine</p> <p>Author: Selena Chen</p>	<p>Preconditions: Compression program started</p> <p><b>**HEADER**</b></p> <p>Enter C-ompress, D-ecompress, or Q-uit: <b>d</b></p> <p>Enter input file: <b>test-files/Test5Compress_Exp.txt</b></p> <p>Enter output file: <b>test-files/Test5Decompress.txt</b></p>	<p>Test5Decompress.txt is created in the test-files directory.</p> <p>Test5Decompress.txt contains exactly the same characters as Test5.txt: the world war spurred the development of electronics components started to become available</p>	<p>Test5Decompress.txt is created in the test-files directory.</p> <p>Test5Decompress.txt contains exactly the same characters as Test5.txt: the world war spurred the development of electronics components started to become available</p>
<p>testCompressLargeFile</p> <p>Author: Dr. Balik</p>	<p>Preconditions: Compression program started</p> <p><b>**HEADER**</b></p> <p>Enter C-ompress, D-ecompress, or Q-uit: <b>c</b></p> <p>Enter input file: <b>test-files/computer.txt</b></p> <p>Enter output file: <b>test-files/computerCompress.txt</b></p>	<p>computerCompress.txt is created in the test-files directory.</p> <p>computerCompress.txt contains exactly the same characters as compressedComputer.txt</p>	<p>computerCompress.txt is created in the test-files directory.</p> <p>computerCompress.txt contains exactly the same characters as compressedComputer.txt</p>
<p>testDecompressLargeFile</p> <p>Author: Dr. Balik</p>	<p>Preconditions: Compression program started</p> <p><b>**HEADER**</b></p> <p>Enter C-ompress, D-ecompress, or Q-uit: <b>D</b></p> <p>Enter input file: <b>test-files/compressedComputer.txt</b></p>	<p>decompressedComputer.txt is created in the test-files directory.</p> <p>decompressedComputer.txt contains exactly the same characters as computer.txt</p>	<p>decompressedComputer.txt is created in the test-files directory.</p> <p>decompressedComputer.txt contains exactly the same characters as computer.txt</p>

	Enter output file: <b>test-files/decompressedComputer.txt</b>		
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