

System Test Plan: Cipher program

Introduction: The text in bold in the **Description** column represents the test inputs.

Test Files: (List each test file below.)

HINT: The Unix diff command may be used to tell whether or not two files are identical. For example,
\$ diff test-files/test1Encrypt.txt test-files/exp_test1Encrypt.txt

Test ID	Description	Expected Results	Actual Results
testTooFewArgs	\$ java -cp bin Cipher	Usage: java -cp bin Cipher infile outfile	usage: java -cp bin Cipher infile outfile
Author: Dr. Balik		Program quits.	
testInputFileNotFound	\$ java -cp bin Cipher test-files/in.txt test-files/out.txt	Unable to access input file: test-files/in.txt	Unable to access input file:test-files/in.txt
Author: Dr. Balik		Program quits.	Program quits
testOutputFileNotOverwritten	Check timestamp on overwritetest.txt \$ ls -l test-files/overwritetest.txt	Date and time for test-files/overwritetest.txt has not changed	-rw-rw-r--@ 1 rabinpaudel staff 20 Apr 6 00:24 test-files/overwritetest.txt
Author: Dr. Balik	\$ java -cp bin Cipher test-files/input.txt test-files/overwritetest.txt test-files/overwritetest.txt exists - OK to overwrite (y,n)?: nope		test-files/overwritetest.txt exists - OK to overwrite (y,n)?: nope
	Recheck timestamp \$ ls -l test-files/overwritetest.txt		rw-rw-r--@ 1 rabinpaudel staff 20 Apr 6 00:24 test-files/overwritetest.txt
testMenu	Delete test-files/newfile.txt if it exists	Cipher - Please enter an operation below.	Cipher - Please enter an operation below.
Author: Dr. Balik	\$ java -cp bin Cipher test-files/input.txt test-files/newfile.txt	R - Reverse all lines F - Shift all letters forward B - Shift all letters backward Q - Quit	R - Reverse all lines F - Shift all letters forward B - Shift all letters backward Q - Quit
	<CTRL+C> (to end program)	Operation:	operation:

Test ID	Description	Expected Results	Actual Results
testQuit	Delete test-files/newfile.txt if it exists	Program exits	test-files/newfile.txt exists - OK to overwrite (y,n)?: y
Author: Dr. Balik	\$ java -cp bin Cipher test-files/input.txt test-files/newfile.txt Operation: Q	newfile.txt is exactly the same as input.txt	Cipher - Please enter an operation below. R - Reverse all lines F - Shift all letters forward B - Shift all letters backward Q - Quit operation: Q newfile.txt is exactly the same as input.txt
testOutputFileOverwrite	Check timestamp on overwritetest.txt \$ ls -l test-files/overwritetest.txt	Date and time for test-files/overwritetest.txt has changed	-rw-rw-r--@ 1 rabinpaudel staff 20 Apr 6 00:24 test-files/overwritetest.txt
Author: Dr. Balik	\$ java -cp bin Cipher test-files/input.txt test-files/overwritetest.txt test-files/overwritetest.txt exists - OK to overwrite (y,n)?: yep Operation: q Recheck timestamp \$ ls -l test-files/overwritetest.txt		test-files/overwritetest.txt exists - OK to overwrite (y,n)?: yep Cipher - Please enter an operation below. R - Reverse all lines F - Shift all letters forward B - Shift all letters backward Q - Quit operation: Q -rw-rw-r--@ 1 rabinpaudel staff 0 Apr 6 05:58 test-files/overwritetest.txt
testInvalidOperation	Delete test-files/newfile.txt if it exists	Invalid operation	Invalid line

Author: Dr. Balik	<div>\$ java -cp bin Cipher test-files/input.txt test-files/newfile.txt</div> <div>Operation: reverse</div>		
testForwardInvalidShift Amount Author: Dr. Balik	<div>Delete test-files/newfile.txt if it exists</div> <div>\$ java -cp bin Cipher test-files/input.txt test-files/newfile.txt</div> <div>Operation: f</div> <div>Shift amount(1-25): abc</div>	Invalid amount	Invalid amount
testBackwardInvalidShiftAmount Author: Dr. Balik	<div>Delete test-files/newfile.txt if it exists</div> <div>\$ java -cp bin Cipher test-files/input.txt test-files/newfile.txt</div> <div>Operation: B</div> <div>Shift amount(1-25): 27</div>	Invalid amount	Invalid amount
Test ID	Description	Expected Results	Actual Results
testEncryptShiftForwardSingleWord Author: Dr. Balik	<div>\$ java -cp bin Cipher test-files/test1.txt test-files/test1Encrypt.txt</div> <div>Operation: F</div> <div>Shift amount(1-25): 2</div> <div>Operation: q</div>	<div>test1Encrypt.txt is created in the test-files directory.</div> <div>test1Encrypt.txt is exactly the same as exp_test1Encrypt.txt</div>	<div>test1Encrypt.txt is created in the test-files directory.</div> <div>test1Encrypt.txt is exactly the same as exp_test1Encrypt.txt</div>
testDecryptShiftForwardSingleWord Author: Dr. Balik	<div>\$ java -cp bin Cipher test-files/exp_test1Encrypt.txt test-files/test1Decrypt.txt</div> <div>Operation: B</div> <div>Shift amount(1-25): 2</div> <div>Operation: q</div>	<div>test1Decrypt.txt is created in the test-files directory.</div> <div>test1Decrypt.txt is exactly the same as test1.txt</div>	<div>test1Decrypt.txt is created in the test-files directory.</div> <div>test1Decrypt.txt is exactly the same as test1.txt</div>
testEncryptShiftForwardSingleWord Author: Rabin Paudel	<div>\$ java -cp bin Cipher test-files/test2.txt test-files/test2Encrypt.txt</div> <div>Operation: F</div> <div>Shift amount(1-25): 2</div> <div>Operation: q</div>	<div>test2Encrypt.txt is created in the test-files directory.</div> <div>test2Encrypt.txt is exactly the same as exp_test2Encrypt.txt</div>	<div>test2Encrypt.txt is created in the test-files directory.</div> <div>test2Encrypt.txt is exactly the same as exp_test2Encrypt.txt</div>

testEncryptShiftForwardMultipleWord Author: Rabin Paudel	\$ java -cp bin Cipher test-files/test3.txt test-files/test3Encrypt.txt Operation: F Shift amount(1-25): 2 Operation: q	test3Encrypt.txt is created in the test-files directory. test3Encrypt.txt is exactly the same as exp_test3Encrypt.txt	est3Encrypt.txt is created in the test-files directory. test3Encrypt.txt is exactly the same as exp_test3Encrypt.txt
testDecryptShiftForwardSingleWord Author: Rabin Paudel	\$ java -cp bin Cipher test-files/exp_test2Encrypt.txt test-files/test2Decrypt.txt Operation: B Shift amount(1-25): 2 Operation: q	test2Decrypt.txt is created in the test-files directory. test2Decrypt.txt is exactly the same as test2.txt	test2Decrypt.txt is created in the test-files directory. test2Decrypt.txt is exactly the same as test2.txt
testDecryptShiftForwardmultipleWord Author: Rabin Paudel	\$ java -cp bin Cipher test-files/exp_test3Encrypt.txt test-files/test3Decrypt.txt Operation: B Shift amount(1-25): 2 Operation: q	test3Decrypt.txt is created in the test-files directory. test3Decrypt.txt is exactly the same as test3.txt	test3Decrypt.txt is created in the test-files directory. test3Decrypt.txt is exactly the same as test3.txt
testEncryptShiftForwardMultipleWord Author: Rabin Paudel	\$ java -cp bin Cipher test-files/test4.txt test-files/test4Encrypt.txt Operation: F Shift amount(1-25): 2 Operation: q	test4Encrypt.txt is created in the test-files directory. test4Encrypt.txt is exactly the same as exp_test4Encrypt.txt	test4Encrypt.txt is created in the test-files directory. test4Encrypt.txt is exactly the same as exp_test4Encrypt.txt
testDecryptShiftForwardmultipleWord Author: Rabin Paudel	\$ java -cp bin Cipher test-files/exp_test4Encrypt.txt test-files/test4Decrypt.txt Operation: B Shift amount(1-25): 2 Operation: q	test4Decrypt.txt is created in the test-files directory. test4Decrypt.txt is exactly the same as test4.txt	test4Decrypt.txt is created in the test-files directory. test4Decrypt.txt is exactly the same as test4.txt
testEncryptShiftForwardMultipleWord Author: Rabin Paudel	\$ java -cp bin Cipher test-files/test5.txt test-files/test5Encrypt.txt Operation: F Shift amount(1-25): 2 Operation: q	test5Encrypt.txt is created in the test-files directory. test5Encrypt.txt is exactly the same as exp_test5Encrypt.txt	test5Encrypt.txt is created in the test-files directory. test5Encrypt.txt is exactly the same as exp_test5Encrypt.txt
testDecryptShiftForwardmultipleWord	\$ java -cp bin Cipher test-files/exp_test5Encrypt.txt test-files/test5Decrypt.txt Operation: B	test5Decrypt.txt is created in the test-files directory. test5Decrypt.txt is exactly the same as test5.txt	test5Decrypt.txt is created in the test-files directory. test5Decrypt.txt is exactly the same as test5.txt

Author: Rabin Paudel	Shift amount(1-25): 2 Operation: q		
Test ID	Description	Expected Results	Actual Results
testEncryptSmallFileMultipleOperations Author: Dr. Balik	\$ java -cp bin Cipher test-files/input.txt test-files/inputEncrypt.txt Operation: f Shift amount(1-25): 2 Operation: R Operation: B Shift amount(1-25): 1 Operation: F Shift amount(1-25): 8 Operation: q	inputEncrypt.txt is created in the test-files directory. inputEncrypt.txt is exactly the same as exp_inputEncrypt.txt	inputEncrypt.txt is created in the test-files directory. inputEncrypt.txt is exactly the same as exp_inputEncrypt.txt
testDecryptSmallFileMultipleOperations Author: Dr. Balik	\$ java -cp bin Cipher test-files/exp_inputEncrypt.txt test-files/inputDecrypt.txt Operation: b Shift amount(1-25): 2 Operation: R Operation: F Shift amount(1-25): 1 Operation: b Shift amount(1-25): 8 Operation: Q	inputDecrypt.txt is created in the test-files directory. input.txt inputDecrypt.txt is exactly the same as	inputDecrypt.txt is created in the test-files directory. input.txt inputDecrypt.txt is exactly the same as
testEncrpytLargeFileMultipleOperations	\$ java -cp bin Cipher test-files/RoadNotTaken.txt test-files/RoadNotTakenEncrypt.txt Operation: r	RoadNotTakenEncrypt.txt is created in the test-files directory.	RoadNotTakenEncrypt.txt is created in the test-files directory.

Author: Dr. Balik	Operation: f Shift amount(1-25): 5 Operation: q	RoadNotTakenEncrypt.txt is exactly the same as exp_RoadNotTakenEncrypt.txt	RoadNotTakenEncrypt.txt is exactly the same as exp_RoadNotTakenEncrypt.txt
Test ID	Description	Expected Results	Actual Results
testDecryptLargeFileMultipleOperations	\$ java -cp bin Cipher test-files/exp_RoadNotTakenEncrypt.txt test-files/RoadNotTakenDecrypt.txt	RoadNotTakenDecrypt.txt is created in the test-files directory.	RoadNotTakenDecrypt.txt is created in the test-files directory.
Author: Dr. Balik	Operation: r Operation: b Shift amount(1-25): 5 Operation: q	RoadNotTakenDecrypt.txt is exactly the same as RoadNotTaken.txt	RoadNotTakenDecrypt.txt is exactly the same as RoadNotTaken.txt