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 Author: Dr. Balik	**$ java -cp bin Cipher**	Usage: java -cp bin Cipher infile outfile Program quits.	Usage: java -cp bin Cipher infile outfile Program quits.
testInputFileNotFound Author: Dr. Balik	**$ java -cp bin Cipher test-files/in.txt test-files/out.txt**	Unable to access input file: test-files/in.txt Program quits.	Unable to access input file: test-files/in.txt Program quits.
testOutputFileNotOverwritten Author: Dr. Balik	Check timestamp on overwritetest.txt **$ ls -l test-files/overwritetest.txt** **$ java -cp bin Cipher test-files/input.txt test-files/overwritetest.txt** test-files/overwritetest.txt exists - OK to overwrite (y,n)?: **nope** Recheck timestamp **$ ls -l test-files/overwritetest.txt**	Date and time for test-files/overwritetest.txt has not changed	Date and time for test-files/overwritetest.txt has not changed
testMenu Author: Dr. Balik	Delete test-files/newfile.txt if it exists **$ java -cp bin Cipher test-files/input.txt test-files/newfile.txt** **<CTRL+C>** (to end program)	Cipher - Please enter an operation below. R - Reverse all lines F - Shift all letters forward B - Shift all letters backward Q - Quit Operation:	Cipher - Please enter an operation below. R - Reverse all lines F - Shift all letters forward B - Shift all letters backward Q - Quit Operation:

Test ID	Description	Expected Results	Actual Results
testQuit Author: Dr. Balik	Delete test-files/newfile.txt if it exists $ **java -cp bin Cipher test-files/input.txt test-files/newfile.txt** Operation: **Q**	Program exits newfile.txt is exactly the same as input.txt	Program exits newfile.txt is exactly the same as input.txt
testOutputFileOverwritten Author: Dr. Balik	Check timestamp on overwritetest.txt $ **ls -l test-files/overwritetest.txt** $ **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**	Date and time for test-files/overwritetest.txt has changed	Date and time for test-files/overwritetest.txt has changed
testInvalidOperation Author: Dr. Balik	Delete test-files/newfile.txt if it exists $ **java -cp bin Cipher test-files/input.txt test-files/newfile.txt** Operation: **reverse**	Invalid operation	Invalid operation
testForwardInvalidShiftAmount Author: Dr. Balik	Delete test-files/newfile.txt if it exists $ **java -cp bin Cipher test-files/input.txt test-files/newfile.txt** Operation: **f** Shift amount(1-25): **abc**	Invalid amount	Invalid amount
testBackwardInvalidShiftAmount Author: Dr. Balik	Delete test-files/newfile.txt if it exists $ **java -cp bin Cipher test-files/input.txt test-files/newfile.txt** Operation: **B** Shift amount(1-25): **27**	Invalid amount	Invalid amount

Test ID	Description	Expected Results	Actual Results
testEncryptShiftForwardSingleWord Author: Dr. Balik	$ **java -cp bin Cipher test-files/test1.txt test-files/test1Encrypt.txt** Operation: **F** Shift amount(1-25): **2** Operation: **q**	test1Encrypt.txt is created in the test-files directory. test1Encrypt.txt is exactly the same as exp_test1Encrypt.txt	test1Encrypt.txt is created in the test-files directory. test1Encrypt.txt is exactly the same as exp_test1Encrypt.txt
testDecryptShiftForwardSingleWord Author: Dr. Balik	$ **java -cp bin Cipher test-files/exp_test1Encrypt.txt test-files/test1Decrypt.txt** Operation: **B** Shift amount(1-25): **2** Operation: **q**	test1Decrypt.txt is created in the test-files directory. test1Decrypt.txt is exactly the same as test1.txt	test1Decrypt.txt is created in the test-files directory. test1Decrypt.txt is exactly the same as test1.txt
testEncryptWithNumbers Author:Ashwin Lingaraj	$ **java -cp bin Cipher test-files/test2.txt test-files/test2Encrypt.txt** Operation: **b** Shift amount(1-25): **4** Operation: **R** Operation: **F** Shift amount(1-25): **2** Operation: **Q**	test2Encrypt.txt is created in the test-files directory. test2Encrypt.txt is exactly the same as exp_test2Encrypt.txt	test2Encrypt.txt is created in the test-files directory. test2Encrypt.txt is exactly the same as exp_test2Encrypt.txt
testDecryptWithNumbers Author:Ashwin Lingaraj	$ **java -cp bin Cipher test-files/exp_test2Encrypt.txt test-files/test2Decrypt.txt** Operation: **f** Shift amount(1-25): **4** Operation: **R** 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
testShiftBackwardsMultipleLines	$ **java -cp bin Cipher test-files/test3.txt test-files/test3Encrypt.txt** Operation: **B** Shift amount(1-25): **5**	test3Encrypt.txt is created in the test-files directory. test3Encrypt.txt is exactly the same as exp_test3Encrypt.txt	test3Encrypt.txt is created in the test-files directory. test3Encrypt.txt is exactly the same as exp_test3Encrypt.txt

Author: Ashwin Lingaraj	Operation: **q**		
testDecryptMultipleLines Author:Ashwin Lingaraj	$ **java -cp bin Cipher test-files/exp_test3Encrypt.txt test-files/test3Decrypt.txt** Operation: **F** Shift amount(1-25): **5** 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
testMixedCaseEncrypt Author:Ashwin Lingaraj	$ **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
testMixedCaseDecrypt Author: Ashwin Lingaraj	$ **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
testPunctuationEncrypt Author:Ashwin Lingaraj	$ **java -cp bin Cipher test-files/test5.txt test-files/test5Encrypt.txt** Operation: **f** Shift amount(1-25): **4** Operation: **R** 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
testPunctuationDecrypt Author:Ashwin Lingaraj	$ **java -cp bin Cipher test-files/exp_test5Encrypt.txt test-files/test5Decrypt.txt** Operation: **B** Shift amount(1-25): **4** Operation: **R** Operation: **q**	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
Test ID	**Description**	**Expected Results**	**Actual Results**
testEncryptSmallFileMultipleOperations	$ **java -cp bin Cipher test-files/input.txt test-files/inputEncrypt.txt** Operation: **f**	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.

Test ID	Description	Expected Results	Actual Results
Author: Dr. Balik	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 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**	test1Decrypt.txt is created in the test-files directory. test1Decrypt.txt is exactly the same as test1.txt	test1Decrypt.txt is created in the test-files directory. test1Decrypt.txt is exactly the same as test1.txt
testEncrpytLargeFileMultipleOperations Author: Dr. Balik	$ **java -cp bin Cipher test-files/RoadNotTaken.txt test-files/RoadNotTakenEncrypt.txt** Operation: **r** Operation: **f** Shift amount(1-25): **5** Operation: **q**	RoadNotTakenEncrypt.txt is created in the test-files directory. RoadNotTakenEncrypt.txt is exactly the same as exp_RoadNotTakenEncrypt.txt	RoadNotTakenEncrypt.txt is created in the test-files directory. 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 exactly the same as RoadNotTaken.txt	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 |