BLACK BOX TEST PLAN

In this section, you must provide your black-box test plan with at least 5 black-box test cases.

Make sure:

- You describe how to setup the system to begin black-box testing
- Test IDs are uniquely identified and descriptive
- Test descriptions are fully specified with complete inputs, specific values, and preconditions
  - Be sure to provide <u>SPECIFIC</u> INPUTs and VALUEs so that your test cases are repeatable
- Expected results are fully specified with specific output values
- The test process is fully provided and clear. No modifications are needed.
- All tests cover scenarios based on the problem statement
- All tests cover unique scenarios for the system
- All strategies for black-box testing are demonstrated in the tests (ECP, BVA, DT)

The Security Log Manager program reads an input file that contains user activity log information, generates an operational profile based on the rate of occurrence of the user action and resource accessed, and creates a user report.

For the following text cases, the test file activityLog_test.txt will be used. The test file contains the following information:

USERNAME, TIMESTAMP, ACTION, RESOURCE
jtking, 01/18/2018 01:22:21PM, view, prescription information
mbbrown, 01/18/2018 01:23:47PM, create, immunization order
ssoulcrusher, 01/18/2018 01:22:01PM, delete, prescription information
jdschmidt, 01/18/2018 01:24:21PM, view, prescription information
jtking, 01/18/2018 12:58:14PM, delete, demographics information

(The information from the test file is taken from the information provided in the project 4 part 1 write-up)

The Security Log Manager program will start by first loading SecurityLogManagerUI on the terminal. Once SecurityLogManagerUI has been loaded, the user should then be prompted to load an input file.

Test ID	Description	Expected Results	Actual Results
testLoadInputFile **(ECP – loading a valid activity log file)**	**Preconditions:** - SecurityLogManagerUI has started and is running - The user is prompted to load an input file - The test file activityLog_test.txt has been created	The following three options are displayed on the terminal: Generate Operational Profile (O), Create a User Report (U), or Quit (Q):	The following three options were displayed on the terminal: Generate Operational Profile (O), Create a User Report (U), or Quit (Q):

	The user provides a user activity log file to the terminal. Once the user provides a valid input file, the user should then be prompted to the following options: generate an operational profile, create a user report, or quit the program. **Steps:** 1. Type input/activityLog_test.txt on the command-line 2. Click enter		

testGenerateOperationalProfile
 	
(BVA – choosing two timestamps (minimum and maximum) from the user activity log file as the begin and end time)
	Preconditions:
	• SecurityLogManagerUI has started and is running
	• The test file activityLog_test.txt has been created
	• testLoadInputFile has passed
	
	The user enters the start and end time using two values from the user activity log file to see if all of the user activity logs are displayed through the console, ordered based on frequency of the user action and resource. If the frequency of two log entries are the same, then they should be sorted alphabetically by action and resource.
	
	Steps:
	1. On the command-line, type "O" to select the option to generate an operation file
	2. Enter "01/18/2018 12:58:14PM" for the start time and "01/18/2018 01:24:21PM" for the end time. The date and
		The operational profile is created and displays the following information:
		
		OperationalProfile[
		  view prescription information: frequency: 2, percentage: 40.0%
		  create immunization order: frequency: 1, percentage: 20.0%
		  delete demographics information: frequency: 1, percentage: 20.0%
		  delete prescription information: frequency: 1, percentage: 20.0%
		]
			The terminal displayed the following information:
			
			OperationalProfile[
			  view prescription information: frequency: 2, percentage: 40.0%
			  create immunization order: frequency: 1, percentage: 20.0%
			  delete demographics information: frequency: 1, percentage: 20.0%
			  delete prescription information: frequency: 1, percentage: 20.0%
			]

	time should be separated by one whitespace 3. Click enter		

testCreateUserReport
 	
(ECP – generate user report for a given user that exists in the user activity log file)
	Preconditions:
	• SecurityLogManagerUI has started and is running
	• The test file activityLog_test.txt has been created
	• testLoadInputFile has passed
	
	The user enters a username to see if a user report is produced for the specific user.
	
	Steps:
	1. On the command-line, type "U" to select the option to produce a user report
		The user report for jtking is created and displays the following information:
		
		Activity Report for jtking[
		   01/18/2018 12:58:14PM - delete demographics information
		   01/18/2018 01:22:21PM - view prescription information
		]
			The terminal displayed the following information:
			
			Activity Report for jtking[
			   01/18/2018 12:58:14PM – delete demographics information
			   01/18/2018 01:22:21PM – view prescription information
			]

	2. Enter "jtking" as the username 3. Click enter		

testCreateInvalid UserReport
 	
(DT – attempt to generate user report by providing a username that does not exist in the user activity log file)
	Preconditions:
	• SecurityLogManagerUI has started and is running
	• The test file activityLog_test.txt has been created
	• testLoadInputFile has passed
	
	The user enters a username that does not exist in the user activity log file to see if a user report is generated or not. The user should expect to see a message displayed through the console rather than a user report.
	
	Steps:
	1. On the command-line, type "U" to select the option to produce a user report
	2. Enter "coolguy" as the username
	3. Click enter
		The terminal displays the following information:
		
		Activity Report for coolguy[
		   No activity was recorded.
		]
			The terminal displayed the following information:
			
			Activity Report for coolguy[
			   No activity was recorded.
			]

testQuitProgram **(ECP – ending the program)**	**Preconditions:** • SecurityLogManagerUI has started and is running The user quits the program by entering in a specific command to see if the program successfully closes. **Steps:** 1. On the command-line, type "Q" to select the option to quit the program	The message "The Security Log Manager program will now close" is displayed. SecurityLogManagerUI closes, and the terminal window is still open.	The message "The Security Log Manager program will now close" was displayed. SecurityLogManagerUI was no longer running, and the terminal window was still open.

Document Revision History

Date	Author	Change Description
4-16-18	Jimmy Nguyen	• Changed input file name to "activityLog_small.txt"; added citations for where the file was obtained • Updated testLoadInputFile, testGenerateOperationalProfile, testCreateUserReport, testCreateInvalidUserReport, and testQuitProgram
4-22-18	Jimmy Nguyen	• Updated set-up description and testLoadInputFile