

BLACK BOX TEST PLAN

For our black-box test cases, we will use the following test files named **preorderfile.txt**:

```
GOAL Use DDoS Attack to Disrupt All Users
O Attack Servers
O Direct BOTNET against key Servers
O 0.5 6 5000 "Rent" Existing BOTNET
O Build a BOTNET
A 0.5 3 2000 Find vulnerable Computers
A 0.4 4 5000 Infect Computer with BOT
A 0.6 4 1000 Remain Undetected
O 0.3 7 30000 Infect Servers with worm/virus
O Attack Comm Infrastructure
O 0.3 7 30000 Attack Switches
O 0.3 7 30000 Attack Routers
O 0.1 8 50000 Attack DNS
O Attack All Clients
O 0.1 5 10000 Infect Clients with worm/virus
```

postorderfile.txt:

```
O 0.5 6 5000 "Rent" Existing BOTNET
A 0.5 3 2000 Find vulnerable Computers
A 0.4 4 5000 Infect Computer with BOT
A 0.6 4 1000 Remain Undetected
O Build a BOTNET
O Direct BOTNET against key Servers
O 0.3 7 30000 Infect Servers with worm/virus
O Attack Servers
O 0.3 7 30000 Attack Switches
O 0.3 7 30000 Attack Routers
O 0.1 8 50000 Attack DNS
O Attack Comm Infrastructure
O 0.1 5 10000 Infect Clients with worm/virus
O Attack All Clients
GOAL Use DDoS Attack to Disrupt All Users
```

And logfile.txt:

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9-13-2015 2:58:49,user2,save patient list
12-18-2012 16:25:58,user18,view diagnoses
7-19-2013 22:49:10,user1,edit email reminders
7-10-2015 0:26:58,user15,add patient representative list
8-1-2015 3:54:17,user10,update appointment requests
```

To run the tests:

1. Right click on SecurityTreeManagerUI class in the Package Explorer.
2. Select Run As > Java Application

Test ID	Description	Expected Results	Actual Results
Test 1: StartAndLoadTraversalFiles (ECP – Loading preorder transversal and post order transversal files)	Preconditions: <ul style="list-style-type: none"> SecurityManagerTreeUI has been loaded successfully The file ddos-preorder.txt exists The file ddos-postorder.txt exists Steps: <ol style="list-style-type: none"> Click “Build Attack Tree” button. Enter “input/ddos-preorder.txt” in the Preorder text field. Enter “input/ddos-postorder.txt” in the postorder text field Click “Load Files” button Check results Quit by clicking red X on the left top corner of the window. 	TheSecurityManagerTreeUI displays the level order traversal of the tree in the textbox under “Level-Order Traversal”	TheSecurityManagerTreeUI displays the level order traversal of the tree in the textbox under “Level-Order Traversal”
Test 2: LoadLogFile (ECP – Loading log file)	Preconditions: <ul style="list-style-type: none"> SecurityManagerTreeUI has been loaded successfully The file sample-log.txt exists Steps: <ol style="list-style-type: none"> Click “Build Log Entry Tree” button. Enter “input/sample-log.txt” in the log 	TheSecurityManagerTreeUI will display level order traversal of the logs binary search tree in the text box under “Level-Order Traversal of The Log File”	TheSecurityManagerTreeUI will display level order traversal of the logs binary search tree in the text box under “Level-Order Traversal of The Log File”

	file text field. 3. Click "Load" button. 4. Close the current window to go back to the Main Menu.		
Test 3: ProduceAttackGoalSummary (BVA – The information at the attack goal (the root node) is returned.	Preconditions: <ul style="list-style-type: none"> Test 1 and Test 2 have passed. User is in the Main Menu screen Steps: <ol style="list-style-type: none"> Click on "Build Attack Tree" button. Input "input/ddos-preorder.txt" and "input/ddos-postorder.txt" for file names and click Load button. Click "View Summary" button. Close the current window to go back to the Main Menu. 	The screen displays: GOAL Step[Use DDoS Attack to Disrupt All Users, C=21557.12, P=0.878, I=8.00]	The screen displays: GOAL Step[Use DDoS Attack to Disrupt All Users, C=21557.12, P=0.878, I=8.00]
Test 4: RetrieveLogEntries (BVA – Retrieve all log entries by input valid date)	Preconditions: <ul style="list-style-type: none"> Test 1, Test 2, and Test 3 have passed. User is in the Main Menu screen. Steps: <ol style="list-style-type: none"> Click "Build Log Entry Tree" button. Input "input/sample-log.txt" in the text field and click Load button. Enter "07-10-2015" in the search box. Click "Search Log" button. 	The log list displays: LogEntry[timestamp=2015/07/10 00:26:58, user=user15, description=add patient representative list]	The log list displays: LogEntry[timestamp=2015/07/10 00:26:58, user=user15, description=add patient representative list]

<p>Test 5:</p> <p>RetrieveLogEntriesWithInvalidInput</p> <p>(DT – trying to retrieve all log entries by input an invalid date)</p>	<p>Preconditions:</p> <ul style="list-style-type: none"> • Test 1, Test 2, and Test 3 have passed. <p>Steps:</p> <ol style="list-style-type: none"> 1. Enter “07102015” in the text-field under log list. 2. Click “Search Log” button 3. Check results 4. Close the current window to go back to the Main Menu 	<p>A new pop-up window displays “The date must be in MM-DD-YYYY format”</p>	<p>A new pop-up window displays “The date must be in MM-DD-YYYY format”</p>
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