# Lab 03: Black Box Test Plan

## Test Overview

There are 15 system-level black box tests.

To run the tests:

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

Click “Load Student Directory” in the WolfScheduler GUI to view the FileChooser for the student directory.

All tests files are located in the test-files/ folder.

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1: Invalid File | Preconditions: None  Run StudentDirectoryPanel.  Select **LoadStudentDirectory**  Select test-files/invalid\_student\_records.txt  *Check results* | The Student Directory is empty | The Student Directory is empty |
| Test 2: Valid File  Sorted | Preconditions: None  Run StudentDirectoryPanel.  Select **LoadStudentDirectory**  Select **test-files/student\_records.txt**  *Check results* | Students appear in the Student Directory with first names in the order as follows:  Demetrius  Lane  Raymond  Emerald  Shannon  Althea  Zahir  Dylan  Cassandra  Griffith | Students appear in the Student Directory with first names in the order as follows:  Demetrius  Lane  Raymond  Emerald  Shannon  Althea  Zahir  Dylan  Cassandra  Griffith |
| Test 3 Remove Student | Preconditions: Test 2 passes.  Select the Student named **Lane**  Click **Remove Student**  *Check results* | Lane is removed from the Student Directory and the list is updated as follows:  Demetrius  Raymond  Emerald  Shannon  Althea  Zahir  Dylan  Cassandra  Griffith | Lane is removed from the Student Directory and the list is updated as follows:  Demetrius  Raymond  Emerald  Shannon  Althea  Zahir  Dylan  Cassandra  Griffith |
| Test 4  Add Student that is Sorted | Preconditions: Test 2 passes  Under the following **Student Information** input boxes enter the following:  First Name : Jon  Last Name: Smith  ID : jsmith  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password: jsmith321  Repeat Password: jsmith321  Max Credits: 16  Select **Add Student**  *Check Results* | Jon Smith with the Student ID jsmith is added to the Student Directory  The first names of the Student Directory are in the order as follows:  Demetrius  Raymond  Emerald  Shannon  Althea  Zahir  Dylan  Cassandra  Jon  Griffith | Jon Smith with the Student ID jsmith is added to the Student Directory  The first names of the Student Directory are in the order as follows:  Demetrius  Raymond  Emerald  Shannon  Althea  Zahir  Dylan  Cassandra  Jon  Griffith |
| Test 5  Add Student w/ Invalid Email | Preconditions: Test 2 and 4 pass  Under the following **Student Information** input boxes enter the following:  First Name : James  Last Name: Smith  ID : jsmith  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password: swagmaster123  Repeat Password: swagmaster123  Max Credits: 16  Select **Add Student**  *Check Results* | Message popup is displayed:  “ Student already in system.” | Message popup is displayed:  “ Student already in system.” |
| Test 6:  Test Invalid LastName  author : Dilli Wagley | Precondition: reconditions: Test 2-4 passes.  Run StudentDirectoryPanel  Fill in Student information:    First Name : Jon  Last Name:  ID : jsmith  Email: jsmith@ncsu.edu  Password: jsmith321  Repeat Password: jsmith321  Max Credits: 16  Select **Add Student**  *Check results*    Close Panel | dialog box with the message **“Invalid last name**”is displayed | dialog box with the message **“Invalid last name**”is displayed |
| Test 7:  Save  StudentDirectory  author : Dilli Wagley | Preconditions: Test 2-4 have passed    Run StudentDirectoryPanel    Click **Save Student Directory**    Select test-files folder**,** save the list of students to **actual\_student\_records.txt**    Click **Save** (it’s ok to overwrite old results)      *Check results*    Close Panel | In Eclipse, right click on the PackScheduler project and select **Refresh.**    Open the test-files folder and open actual\_student\_records.txt in the editor.  Demetrius,Austin,daustin,Curabitur.egestas.nunc@placeratorcilacus.co.uk,0�R��"��u���\7X�F���9�{-O�F�ap�,18  Raymond,Brennan,rbrennan,litora.torquent@pellentesquemassalobortis.ca,0�R��"��u���\7X�F���9�{-O�F�ap�,12  Emerald,Frost,efrost,adipiscing@acipsumPhasellus.edu,0�R��"��u���\7X�F���9�{-O�F�ap�,3  Shannon,Hansen,shansen,convallis.est.vitae@arcu.ca,0�R��"��u���\7X�F���9�{-O�F�ap�,14  Althea,Hicks,ahicks,Phasellus.dapibus@luctusfelis.com,0�R��"��u���\7X�F���9�{-O�F�ap�,11  Zahir,King,zking,orci.Donec@ametmassaQuisque.com,0�R��"��u���\7X�F���9�{-O�F�ap�,15  Dylan,Nolan,dnolan,placerat.Cras.dictum@dictum.net,0�R��"��u���\7X�F���9�{-O�F�ap�,5  Cassandra,Schwartz,cschwartz,semper@imperdietornare.co.uk,0�R��"��u���\7X�F���9�{-O�F�ap�,4  Griffith,Stone,gstone,porta@magnamalesuadavel.net,0�R��"��u���\7X�F���9�{-O�F�ap�,17  Jon,smith,jsmith,jsmith@ncus.edu,�y#�8����A�l  P�?�`�u����l��o,16 | In Eclipse, right click on the PackScheduler project and select **Refresh.**    Open the test-files folder and open actual\_student\_records.txt in the editor.  Demetrius,Austin,daustin,Curabitur.egestas.nunc@placeratorcilacus.co.uk,0�R��"��u���\7X�F���9�{-O�F�ap�,18  Raymond,Brennan,rbrennan,litora.torquent@pellentesquemassalobortis.ca,0�R��"��u���\7X�F���9�{-O�F�ap�,12  Emerald,Frost,efrost,adipiscing@acipsumPhasellus.edu,0�R��"��u���\7X�F���9�{-O�F�ap�,3  Shannon,Hansen,shansen,convallis.est.vitae@arcu.ca,0�R��"��u���\7X�F���9�{-O�F�ap�,14  Althea,Hicks,ahicks,Phasellus.dapibus@luctusfelis.com,0�R��"��u���\7X�F���9�{-O�F�ap�,11  Zahir,King,zking,orci.Donec@ametmassaQuisque.com,0�R��"��u���\7X�F���9�{-O�F�ap�,15  Dylan,Nolan,dnolan,placerat.Cras.dictum@dictum.net,0�R��"��u���\7X�F���9�{-O�F�ap�,5  Cassandra,Schwartz,cschwartz,semper@imperdietornare.co.uk,0�R��"��u���\7X�F���9�{-O�F�ap�,4  Griffith,Stone,gstone,porta@magnamalesuadavel.net,0�R��"��u���\7X�F���9�{-O�F�ap�,17  Jon,smith,jsmith,jsmith@ncus.edu,�y#�8����A�l  P�?�`�u����l��o,16 |
| Test 8:  Test Invalid  First Name  author : Dilli Wagley | Preconditions: Test 2- 4 have passed    Run StudentDirectoryPanel  Fill in Student information:    First Name :  Last Name: smith  ID : jsmith  Email: jsmith@ncsu.edu  Password: jsmith321  Repeat Password: jsmith321  Max Credits: 16  *Check results*    Close Panel | dialog box with the message **“Invalid First name**”is displayed | Dialog box with the message “ **Invalid First Name**” is displayed. |
| Test 9:  Test Password and repeat password do not match  author : Dilli Wagley | Preconditions: Test 2 passes    Run StudentDirectoryPanel    Fill in Student information:  First Name : Jon  Last Name: Smith  ID : jsmith  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password: jsmith321  Repeat Password: jsmith123  Max Credits: 16  Select **Add Student**  *Check Results* | dialog box with the message **“Passwords do not match.”** is displayed. | dialog box with the message **“Passwords do not match.”** is displayed. |
| Test 10:  Test invalid Max Credits  author : Dilli Wagley | Preconditions: Test 1-4 passes    Run StudentDirectoryPanel    Fill in Student information:  First Name : Jon  Last Name: Smith  ID : jsmith  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password: jsmith321  Repeat Password: jsmith321  Max Credits: xyz  Select **Add Student**  *Check Results* | Dialog box with message”**Max credits must be a positive number between 3 and 18**.” is displayed | Dialog box with message”**Max credits must be a positive number between 3 and 18**.” is displayed |
| Test 11:  Remove Unselected Student  (ectaylor) | **Preconditions: Test 2 has passed**  Following Test 2:  Make sure no student is selected under Student Directory.  Select **Remove Student**  *Check Results* | A pop-up dialog stating “No student selected.” is displayed.  Student Directory contains 10 students:   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Athea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | A pop-up dialog stating “No student selected.” is displayed.  Student Directory contains 10 students:   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Athea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone |
| Test 12:  Clear Student Directory  (ectalyor) | **Preconditions: Test 2 has passed**  Following Test 2:  Select **New Student Directory**  *Check Results* | Student Directory is empty | Student Directory is empty |
| Test 13:  Empty Last Name  (ectaylor) | **Preconditions: Test 4 has passed**  Under “Student Information”, enter:  First Name: Jon  Last Name:  ID: jsmith  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password: jsmith321  Repeat Password: jsmith321  Max Credits: 16  Select **Add Student**  *Check Results*  Select **OK**  *Check Results* | A pop-up dialog stating “Invalid last name” is displayed.  Student Directory is empty | A pop-up dialog stating “Invalid last name” is displayed.  Student Directory is empty |
| Test 14:  Empty ID (ectaylor) | **Preconditions: Test 4 has passed**  “Student Directory” is empty.  Under “Student Information”, enter:  First Name: Jon  Last Name: Smith  ID:  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password: jsmith321  Repeat Password: jsmith321  Max Credits: 16  Select **Add Student**  *Check Results*  Select **OK**  *Check Results* | A pop-up dialog stating “Invalid id” is displayed.  Student Directory is empty | A pop-up dialog stating “Invalid id” is displayed.  Student Directory is empty |
| Test 15:  Empty Password  (ectaylor) | **Preconditions: Test 4 has passed**  “Student Directory” is empty.  Under “Student Information”, enter:  First Name: Jon  Last Name: Smith  ID: jsmith  Email: [jsmith@ncsu.edu](mailto:jsmith@ncsu.edu)  Password:  Repeat Password:  Max Credits: 16  Select **Add Student**  *Check Results*  Select **OK**  *Check Results* | A pop-up dialog stating “Invalid password” is displayed.  Student Directory is empty | A pop-up dialog stating “Invalid password” is displayed.  Student Directory is empty |