# Lab 02: Black Box Test Plan

## Test Overview

There are 15 black box tests.

To run the tests:

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

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

Note that while all tests end with the statement to Close GUI, you can run Tests 2-15 on the same GUI if there are no failures. If there are failures, you can use the preconditions to identify the dependent test cases.

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1:  testInvalidFile  Tests to see if an invalid file will be loaded | Preconditions: None  Run StudentDirectoryPanel  Click **Load Student Directory**  In the **Load Course Catalog** FileChooser dialog select: test-files/invalid\_course\_records.txt  Click **Select**  *Check results*  Close GUI | PackScheduler loads  Student Directory is empty | PackScheduler loads  Student Directory is empty |
| Test 2:  testvalidFile  Tests to see if a valid file will be loaded  (Modified) | Preconditions: None  Run StudentDirectoryPanel  Click **Load Student Directory**  In the **Load Course Catalog** FileChooser dialog select: test-files/student\_records.txt  Click **Select**  *Check results*  Close GUI | PackScheduler Loads  10 Student Records are loaded   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Cassandra, Schwartz, cschwartz * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | PackScheduler Loads  10 Student Records are loaded   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Cassandra, Schwartz, cschwartz * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone |
| Test 3:  testNoSelStudent  Test if an empty student is added | Preconditions: testValidFile passed  Makes sure all fields for entering student information is blank  Click **Add Student**  *Check results*  Close GUI | A pop-up warning says “Max credits must be a positive number between 3 and 18” | A pop-up warning says “Max credits must be a positive number between 3 and 18” |
| Test 4:  testNoSelRemoveStudent  Test what happens when you try to remove with no student selected | Preconditions: testValidFile passed  Make sure no student is highlighted in Student Directory, if one is, close the GUI and follow the steps in testValidFile  Click **Remove Student**  *Check results*  Close GUI | A pop-up warning says “No student selected.” | A pop-up warning says “No student selected.” |
| Test 5:  TestEnteringValidStudent  Tests to see if you can enter a valid student  (Modified) | Preconditions: testValidFile passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: [**gbush911@ncsu.edu**](mailto:gbush911@ncsu.edu) * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **18**   Click **Add Student**  *Check results*  Close GUI | A new student in Student Directory is listed as “George, Bush, gbush911”  PackScheduler Loads  11 Student Records are loaded   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * George, Bush, gbush911 * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Cassandra, Schwartz, cschwartz * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | A new student in Student Directory is listed as “George, Bush, gbush911”  PackScheduler Loads  11 Student Records are loaded   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * George, Bush, gbush911 * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Cassandra, Schwartz, cschwartz * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone |
| Test 6:  testRemoveStudent  Testing if the Remove Student function works  (Modified) | Preconditions: testValidFile and testEnteringValidStudent passed  Click student number 10   * Dylan, Nolan, dnolan   Make sure it is highlighted  Click **Remove Student**  *Check results*  Close GUI | Student in position 10   * Dylan, Nolan, dnolan   is removed  Student Directory now reads:   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * George, Bush, gbush911 * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Cassandra, Schwartz, cschwartz * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | Student in position 10   * Dylan, Nolan, dnolan   is removed  Student Directory now reads:   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * George, Bush, gbush911 * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Cassandra, Schwartz, cschwartz * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone |
| Test 7:  testAddDuplicateStudent  Test if duplicate student is able to be added | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: [**gbush911@ncsu.edu**](mailto:gbush911@ncsu.edu) * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **18**   Click **Add Student**  *Check results*  Close GUI | A pop-up is displayed “Student already in system.”  Student is not added | A pop-up is displayed “Student already in system.”  Student is not added |
| Test 8:  testSaveStudentDirectory | Preconditions: Test 2-6 have passed  Click **Save Student Directory**  Select test-files folder. Enter the filename Actual\_New\_Student\_Directory.txt  Click **Save** (it’s ok to overwrite old results)  *Check results*  Close GUI | In Eclipse, right click on the WolfScheduler project and select **Refresh.**  Open the test-files folder and open actual\_schedule.txt in the editor.  The contents should be the same as Expected\_New\_Student\_Directory.txt | The contents are the same as Expected\_New\_Student\_Directory.txt |
| Test 9:  testNewStudentDirectory  Test resetting the current Student Directory | Preconditions: Test 2 has passed  Click **New Student Directory**  *Check results*  Close GUI | Student Directory clears and is blank. | Student Directory clears and is blank. |
| Test 10:  testLowMaxCredits  Tests to see if allows for an int lower than the max credits allows | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: [**gbush911@ncsu.edu**](mailto:gbush911@ncsu.edu) * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **1**   Click **Add Student**  *Check results* | Popup displays “Invalid max credits”  Does not add new student | Popup displays “Invalid max credits”  Does not add new student |
| Test 11:  testHighMaxCredits  Tests to see if allows for an int higher than the max credits allows | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: [**gbush911@ncsu.edu**](mailto:gbush911@ncsu.edu) * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **24**   Click **Add Student**  *Check results* | Popup displays “Invalid max credits”  Does not add new student | Popup displays “Invalid max credits”  Does not add new student |
| Test 12:  testStringInMaxCredits  Test if program accepts a string in max credits | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: [**gbush911@ncsu.edu**](mailto:gbush911@ncsu.edu) * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **ten**   Click **Add Student**  *Check results* | A pop-up warning says “Max credits must be a positive number between 3 and 18” | A pop-up warning says “Max credits must be a positive number between 3 and 18” |
| Test 13:  testInvalidEmail  Tests for invalid email | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: **bushisms.com** * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **10**   Click **Add Student**  *Check results* | Popup displays “Invalid email”  Does not add new student | Popup displays “Invalid email”  Does not add new student |
| Test 14:  tetsNotMatchingPasswords | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: **gbush911@gmail.com** * Password: **orange** * Repeat Password: **banana** * Max Credits: **10**   Click **Add Student**  *Check results* | Popup displays “Passwords do not match”  Does not add new student | Popup displays “Passwords do not match”  Does not add new student |
| Test 15:  testNegativeMaxCredits | Preconditions: testValidFile and TestAddValidStudent passed  Enter the following under Student Information:   * First Name: **George** * Last Name: **Bush** * ID; **gbush911** * Email: [**gbush911@ncsu.edu**](mailto:gbush911@ncsu.edu) * Password: **misunderestimated** * Repeat Password: **misunderestimated** * Max Credits: **-5**   Click **Add Student**  *Check results* | Popup displays “Invalid max credits”  Does not add new student | Popup displays “Invalid max credits”  Does not add new student |

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