# Lab 02: Black Box Test Plan

## Test Overview

To run these tests:

1. From Package Explorer, right click StudentDirectoryPanel in the edu.ncsu.csc216.pack\_scheduler.ui package
2. Select Run As -> Java Application

The GUI should open automatically. Once loaded, run tests in order. Make sure each of the preconditions are met before running each test.

All the required test files can be found in the test-files directory.

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1:  Invalid file | Preconditions: None  Run StudentDirectoryPanel  Select the Load Student Directory button  Using the Load Course Catalog file chooser, select test-files/invalid\_students\_records.txt  Click the Select button  Check results  Close GUI | GUI loads  Student Directory table is empty  Student Information text fields are empty | GUI loads  Student Directory table is empty  Student Information text fields are empty |
| Test 2:  Valid file | Preconditions: None  Run StudentDirectoryPanel  Select the Load Student Directory button  Using the Load Course Catalog file chooser, select test-files/student\_records.txt  Click the Select button  Check results | GUI loads  Student Directory contains the following 10 entries:   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hanson, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | GUI loads  Student Directory contains the following 10 entries:   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hanson, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolan, dnolan * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone |
| Test 3:  New Student Directory | Preconditions: Test 2 has passed  Click the New Student Directory button  Check results | Student Directory table is empty | Student Directory table is empty |
| Test 4:  Add Student | Preconditions: Test 3 has passed  Enter the following into Student Information:   * First Name: first * Last Name: last * ID: id * Email: test@ncsu.edu * Password: pw * Repeat Password: pw * Max Credits: 15   Click Add Student  Check results | Student Directory contains one entry:   * first, last, id   The Student Information text boxes are empty | Student Directory contains one entry:   * first, last, id   The Student Information text boxes are empty |
| Test 5:  Save Student Directory | Preconditions: Test 4 has passed  Click Save Student Directory  Navigate to test-files folder. Enter the name student\_output.txt  Click Save (it’s ok to overwrite the file if it already exists)  Check results  In Eclipse, right click on the PackScheduler project and select Refresh. In the Package Explorer, open test-files/student\_output.txt.  Check results | Save Scheduler file chooser disappears  Student Directory contains one entry:   * first, last, id   student\_output.txt contains these contents:  first,last,id,test@ncsu.edu,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,15 | Save Scheduler file chooser disappears  Student Directory contains one entry:   * first, last, id   student\_output.txt contains these contents:  first,last,id,test@ncsu.edu,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,15 |
| Test 6:  Remove Student | Preconditions: Test 5 has passed  Select the first and only entry in Student Directory so that it highlights blue  Click Remove Student  Check Results | Student Directory table is empty | Student Directory table is empty |
| Test 7:  Remove no Student | Preconditions: Test 6 has passed  Click Remove Student  Check Results  Close any popups that appeared during this test | Student Directory table is empty  A popup dialog with the message “No student selected.” is displayed | Student Directory table is empty  A popup dialog with the message “No student selected.” is displayed |
| Test 8:  Add Student with no first name | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that First Name should be left empty   * Last Name: last * ID: id * Email: test@ncsu.edu * Password: pw * Repeat Password: pw * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Invalid first name” is displayed  Student Directory is empty | A popup dialog with the message “Invalid first name” is displayed  Student Directory is empty |
| Test 9:  Add Student with no last name | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that Last Name should be left empty   * First Name: first * ID: id * Email: test@ncsu.edu * Password: pw * Repeat Password: pw * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Invalid last name” is displayed  Student Directory is empty | A popup dialog with the message “Invalid last name” is displayed  Student Directory is empty |
| Test 10:  Add Student with no id | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that ID should be left empty   * First Name: first * Last Name: last * Email: test@ncsu.edu * Password: pw * Repeat Password: pw * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Invalid id” is displayed  Student Directory is empty | A popup dialog with the message “Invalid id” is displayed  Student Directory is empty |
| Test 11:  Add Student with no email | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that Email should be left empty   * First Name: first * Last Name: last * ID: id * Password: pw * Repeat Password: pw * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Invalid email” is displayed  Student Directory is empty | A popup dialog with the message “Invalid email” is displayed  Student Directory is empty |
| Test 12:  Add Student with invalid email | Preconditions: Test 6 has passed  Enter the following into Student Information   * First Name: first * Last Name: last * ID: id * Email: ncsu.edu * Password: pw * Repeat Password: pw * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Invalid email” is displayed  Student Directory is empty | A popup dialog with the message “Invalid email” is displayed  Student Directory is empty |
| Test 13:  Add Student with no password | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that Password and Repeat Password should be left empty   * First Name: first * Last Name: last * ID: id * Email: test@ncsu.edu * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Invalid password” is displayed  Student Directory is empty | A popup dialog with the message “Invalid password” is displayed  Student Directory is empty |
| Test 14:  Add Student with | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that Password and Repeat Password are not the same value   * First Name: first * Last Name: last * ID: id * Email: test@ncsu.edu * Password: pw * Repeat Password: p * Max Credits: 15   Check results  Close any popups that appeared during this test | A popup dialog with the message “Passwords do not match” is displayed  Student Directory is empty | A popup dialog with the message “Passwords do not match” is displayed  Student Directory is empty |
| Test 15:  Add Student with no max credits | Preconditions: Test 6 has passed  Enter the following into Student Information. Note that Max Credits should be left empty   * First Name: first * Last Name: last * ID: id * Email: test@ncsu.edu * Password: pw * Repeat Password: pw   Check results  Close any popups that appeared during this test | A popup dialog with the message “Max credits must be a positive number between 3 and 18” is displayed  Student Directory is empty | A popup dialog with the message “Max credits must be a positive number between 3 and 18” is displayed  Student Directory is empty |