# Lab 02: Black Box Test Plan

## Test Overview

To run the tests:

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

.

|  |  |  |  |
| --- | --- | --- | --- |
| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| **Test 1:** Load a valid file | Preconditions: None  Run StudentDirectoryPanel  In the FileChooser dialog select: test-files/student\_records.txt  Click select.  Close GUI | Student Directory loads with 10 students listed in alphabetical order by last name.   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolen, dnolen. * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | Passed!  Student Directory loads with all 10 students. |
| **Test 2:** Remove a student | Preconditions: Test 1 Passed  Click on Lane Berg in the 2nd row.  Click Remove Student.  Close GUI | Student Directory now displays 9 students, still in alphabetical order.   * Demetrius, Austin, daustin * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolen, dnolen. * Cassandra, Schwartz, cschwartz * Griffith, Stone, gstone | Passed!  Student Directory only displays nine students (Lane Berg removed) |
| **Test 3:** Add a valid student | Preconditions: Test 2 Passed  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “Madison” * Last Name - “Smith” * Id - “msmith” * Email - “msmith@ncsu.edu” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | Student Directory now displays 10 students. Madison Smith is placed in the ninth row, so alphabetical order in maintained.   * Demetrius, Austin, daustin * Lane, Berg, lberg * Raymond, Brennan, rbrennan * Emerald, Frost, efrost * Shannon, Hansen, shansen * Althea, Hicks, ahicks * Zahir, King, zking * Dylan, Nolen, dnolen. * Cassandra, Schwartz, cschwartz * Madison, Smith, msmith * Griffith, Stone, gstone   The text boxes should now be blank | Passed!  The student directory now displays 10 students with the new student, Madison Smith, in the ninth row. |
| **Test 4:**  Load an invalid file | Preconditions: None  Run StudentDirectoryPanel  In the FileChooser dialog select: test-files/invalid\_student\_records.txt  Click select.  Close GUI | Student Directory is empty  Student Information is empty | Passed!  No information is displayed in the student directory or student information. |
| **Test 5:**  Add student with invalid email (no @ or .) | Preconditions: None  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “Madison” * Last Name - “Smith” * Id - “msmith” * Email - “fakeemail” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “Invalid email” is displayed. | Passed!  Pop-up displaying “Invalid email” appears. |
| **Test 6:** Attempt to remove a student when none are selected | Preconditions: None  Run StudentDirectoryPanel  Ensure that no student in the student directory is selected and click remove student.  Close GUI | A pop-up dialog stating “No student selected.” is displayed. | Passed!  Pop-up dialog stating “No student selected.” is displayed. |
| **Test 7:** Save student directory | Preconditions: Test 1 Passed  Load test-files/student\_records.txt  Select Save Student Directory and enter the file name exported\_student\_records.txt  Click save  Close GUI | In Eclipse, right click on the PackScheduler project and select **Refresh.**    Open the test-files folder and open exported\_student\_records.txt in the editor.  The contents should be the same as test-files/expected\_full\_student\_records.txt | Passed!  The created file’s contents matches the expected file. |
| **Test 8:**  Add a duplicate student | Preconditions: Test 3 Passed  Fill in the text boxes as   * First Name - “Madison” * Last Name - “Smith” * Id - “msmith” * Email - “msmith@ncsu.edu” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “Student already in system.” is displayed. | Passed!  Pop-up dialog stating “Student already in system.” is displayed. |
| **Test 9:**  Add a student with empty fields | Preconditions: None  Run StudentDirectoryPanel  Ensure that all text fields are empty  Click Add Student  Close GUI | A pop-up dialog stating “Max credits must be a positive number between 3 and 18.” is displayed. | Passed!  The student is not created and the pop-up dialog appears. |
| **Test 10:**  Add student with invalid ID | Preconditions: None  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “Madison” * Last Name - “Smith” * Id - “” * Email - “msmith@ncsu.edu” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “Illegal ID” is displayed. | Passed!  Pop-up dialog stating “Illegal ID” is displayed. |
| **Test 11:**  Add student with invalid first name | Preconditions: None  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “” * Last Name - “Smith” * Id - “msmith” * Email - “msmith@ncsu.edu” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “Illegal First Name” is displayed. | Passed!  Pop-up dialog stating “Illegal First Name” is displayed. |
| **Test 12:**  Add student with invalid last name | Preconditions: None  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “Madison” * Last Name - “” * Id - “msmith” * Email - “msmith@ncsu.edu” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “Illegal Last Name” is displayed | Passed!  Pop-up dialog stating “Illegal Last Name” is displayed. |
| **Test 13:**  Add student with invalid password | Preconditions: None  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “Madison” * Last Name - “Smith” * Id - “msmith” * Email - “msmith@ncsu.edu” * Password - “” * Confirm password - “” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “Illegal Password” is displayed. | Passed!  Pop-up dialog stating “Illegal Password” is displayed. |
| **Test 14:** Add a student with an invalid email (. precedes @) | Preconditions: None  Run StudentDirectoryPanel  Fill in the text boxes as   * First Name - “Madison” * Last Name - “Smith” * Id - “msmith” * Email - “msmith.ncsu@edu” * Password - “pass123” * Confirm password - “pass123” * Max Credits - “17”   Click Add Student  Close GUI | A pop-up dialog stating “That email is invalid.” is displayed. | Passed!  Pop-up dialog stating “That email is invalid.” is displayed. |
| **Test 15:** New Student Directory | Preconditions: Test 3 Passed  Click New Student Directory | Student Directory table is cleared | Passed!  The student directory is now empty. |

.