# Lab 03: Black Box Test Plan

## Test Overview

Tests for the StudentDirectoryPanel class

To run the tests:

1. Right Click on the StudentDirectoryPanel class in the Package Explorer
2. Click Run As Java Application

Although all tests end with the statement to Close GUI, you can run Tests 4-11 on the same GUI if there are no failures, as well as Tests 12-15.

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1:  Test GUI | Run StudentDirectoryPanel.java  *Check Results*  Close GUI | The program starts and provides an empty Student Directory. Student Information contains labels on the left and empty textboxes on the right. | The program starts and provides an empty Student Directory. Student Information contains labels on the left and empty textboxes on the right. |
| Test 2:  Test invalid student records | Preconditions: Test 1  Run StudentDirectoryPanel.java  Click Load Student Directory.  In the Load Course Catalog window, select test-files and select invalid\_student\_records.txt  *Check Results*  Close GUI | The Student Directory list is empty. | The Student Directory list is empty. |
| Test 3:  Test valid student records | Preconditions: Test 1  Click Load Student Directory.  In the Load Course Catalog window, select test-files and select student\_records.txt  *Check Results*  Close GUI | The Student Directory List contains 10 students.  Students are listed in the following order:  Demetrius Austin  Lane Berg  Raymond Brennan  Emerald Frost  Shannon Hansen  Althea Hicks  Zahir King  Dylan Nolan  Cassandra Schwartz  Griffith Stone | The Student Directory List contains 10 students.  Students are listed in the following order:  Demetrius Austin  Lane Berg  Raymond Brennan  Emerald Frost  Shannon Hansen  Althea Hicks  Zahir King  Dylan Nolan  Cassandra Schwartz  Griffith Stone |
| Test 4:  Test Add Student  Invalid First Name | Preconditions: Test 1  Enter the following information in Student Information:  First Name:  Last Name: Doe  ID: jodoe  Email: jodoe@ncsu.edu  Password: pwd  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Invalid first name”. | A dialog box appears containing the error message  “Invalid first name”. |
| Test 5:  Test Add Student  Invalid Last Name | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name:  ID: jodoe  Email: jodoe@ncsu.edu  Password: pwd  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Invalid last name”. | A dialog box appears containing the error message  “Invalid last name”. |
| Test 6:  Test Add Student  Invalid ID | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name: Doe  ID:  Email: jodoe@ncsu.edu  Password: pwd  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Invalid id”. | A dialog box appears containing the error message  “Invalid id”. |
| Test 7:  Test Add Student  Invalid Email | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name: Doe  ID: jodoe  Email:  Password: pwd  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Invalid email”. | A dialog box appears containing the error message  “Invalid email”. |
| Test 8:  Test Add Student  Invalid Password | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name: Doe  ID: jodoe  Email: jodoe@ncsu.edu  Password:  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Invalid password”. | A dialog box appears containing the error message  “Invalid password”. |
| Test 9:  Test Add Student Different Passwords | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name: Doe  ID: jodoe  Email: jodoe@ncsu.edu  Password: pwd  Repeat Password: dwp  Max Credits: 4  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Passwords do not match”. | A dialog box appears containing the error message  “Passwords do not match”. |
| Test 10:  Test Add Student  Invalid Max Credits | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name: Doe  ID: jodoe  Email: jodoe@ncsu.edu  Password: pwd  Repeat Password: pwd  Max Credits: 1  Click Add Student.  *Check Results*  Click OK  Close GUI | A dialog box appears containing the error message  “Invalid max credits”. | A dialog box appears containing the error message  “Invalid max credits”. |
| Test 11:  Test Add Valid Student | Preconditions: Test 1  Enter the following information in Student Information:  First Name: John  Last Name: Doe  ID: jodoe  Email: jodoe@ncsu.edu  Password: pwd  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Close GUI | John Doe jodoe appears in the  Student Directory | John Doe jodoe appears in the  Student Directory |
| Test 12:  Test Remove Student | Preconditions: Test 1, Test 3  Select Shannon Hansen in the Student Directory.  Click Remove Student  Select Zahir King in the Student Directory  Click Remove Student  Close GUI | There are 8 students in the Student Directory:  Demetrius Austin  Lane Berg  Raymond Brennan  Emerald Frost  Althea Hicks  Dylan Nolan  Cassandra Schwartz  Griffith Stone | There are 8 students in the Student Directory:  Demetrius Austin  Lane Berg  Raymond Brennan  Emerald Frost  Althea Hicks  Dylan Nolan  Cassandra Schwartz  Griffith Stone |
| Test 13:  Test Add Identical Student | Preconditions: Test 1, Test 3, Test 12  Enter the following information in Student Information:  First Name: Lane  Last Name: Berg  ID: lberg  Email: lberg@ncsu.edu  Password: pwd  Repeat Password: pwd  Max Credits: 4  Click Add Student.  *Check Results*  Close GUI | A dialog box appears containing the error message  “Student already in system”. | A dialog box appears containing the error message  “Student already in system”. |
| Test 14:  Test Save Directory | Preconditions: Test 1, Test 3, Test 12  Click on Save Student Directory. In the Save Schedule window, save the directory in the test\_files folder with the name actual\_student\_directory.txt  Open actual\_student \_directory.txt in your test\_files folder.  *Check Results*  Close GUI | Actual\_student.directory.txt contains the following students and their full information:  Demetrius Austin  Lane Berg  Raymond Brennan  Emerald Frost  Althea Hicks  Dylan Nolan  Cassandra Schwartz  Griffith Stone | Actual\_student.directory.txt contains the following students and their full information:  Demetrius Austin  Lane Berg  Raymond Brennan  Emerald Frost  Althea Hicks  Dylan Nolan  Cassandra Schwartz  Griffith Stone |
| Test 15:  Test New Directory | Preconditions: Test 1, Test 3, Test 12, Test 14  Click on New Student Directory  *Check results*  Close GUI | Student Directory is empty | Student Directory is empty |