# Lab 2: Black Box Test Plan

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

The GUI will load automatically.

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

Note that while all tests end with the statement to Close GUI. 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: Invalid File | Preconditions: None  Run StudentDirectoryPanel.  Click the **Load Course Catalog** FileChooser dialog select: test-files/invalid\_student\_records.txt  Click **Select**  *Check results*  Close GUI | StudentDirectoryPanel. loads  Student Directory is empty | StudentDirectoryPanel. loads  Student Directory is empty |
| Test 2: Valid File  (Modified) | Preconditions: None  Run StudentDirectoryPanel.  Click the **Load Course Catalog** FileChooser dialog select: test-files/Student\_records.txt  Click **Select**  *Check results*  Close GUI | StudentDirectoryPanel loads  Student Directory contains 10 classes   * Zahir King zking * Cassandra Schwartz cschwartz * Shannon Hansen shansen * Demetrius Austin daustin * Raymond Brennan rbrennan * Emerald Frost efrost * Lane Berg lberg * Griffith Stone gstone * Althea Hicks ahicks * Dylan Nolan dnolan | StudentDirectoryPanel loads  Student Directory contains 10 classes   * Zahir King zking * Cassandra Schwartz cschwartz * Shannon Hansen shansen * Demetrius Austin daustin * Raymond Brennan rbrennan * Emerald Frost efrost * Lane Berg lberg * Griffith Stone gstone * Althea Hicks ahicks * Dylan Nolan dnolan |
| Test 3: Add - No Sel. | Preconditions: Test 2 has passed  With nothing selected or filled in  Click **Add Student**  *Check results*  Click **OK**  Close GUI | A pop-up dialog stating “Max credits must be a positive number between 3 and 18.” is displayed. | A pop-up dialog stating “Max credits must be a positive number between 3 and 18.” is displayed.. |
| Test 4: Add  (Modified) | Preconditions: Test 2 has passed  Type in (JONATHAN, NGUYEN, jhnguye4, [jhnguye4@ncsu.edu](mailto:jhnguye4@ncsu.edu), pw15, pw15, 15)  *Check results*  Click **Add Student**  *Check results*  Close GUI | JONATHAN NGUYEN jhnguye4 is added to Student Directory | JONATHAN NGUYEN jhnguye4 is added to Student Directory |
| Test 5: Remove - No Sel. | Preconditions: Test 2 and Test 4 have passed  Select Cassandra Schartz cschwartz  Click **Remove Student**  *Check results*  Click **OK**  Close GUI | Student Directory contains 10 classes   * Zahir King zking * Shannon Hansen shansen * Demetrius Austin daustin * Raymond Brennan rbrennan * Emerald Frost efrost * Lane Berg lberg * Griffith Stone gstone * Althea Hicks ahicks * Dylan Nolan dnolan * JONATHAN NGUYEN jhnguye4 | Student Directory contains 10 classes   * Zahir King zking * Shannon Hansen shansen * Demetrius Austin daustin * Raymond Brennan rbrennan * Emerald Frost efrost * Lane Berg lberg * Griffith Stone gstone * Althea Hicks ahicks * Dylan Nolan dnolan * JONATHAN NGUYEN jhnguye4   . |
| Test 6: Add Same Student | Preconditions: Test 2 and Test 4 have passed  Type in (JONATHAN, NGUYEN, jhnguye4, jhnguye4@ncsu.edu, pw16, pw16, 15)  *Check results*  Click **Add Student**  *Check results*  Click **OK**  Close GUI | A pop-up dialog stating “Student already in system” is displayed. | A pop-up dialog stating “Student already in system” is displayed. |
| Test 7: Add Student with every same but id  (New) | Preconditions: Test 2 and Test 4 have passed  Type in (JONATHAN, NGUYEN, jhnguye5, jhnguye5@ncsu.edu, pw16, pw16, 15)  *Check results*  Click **Add Student**  *Check results* | JONATHAN NGUYEN jhnguye5 is added to Student Directory | JONATHAN NGUYEN jhnguye5 is added to Student Directory |
| Test 8: Reset | Preconditions: Test 2 and Test 4 have passed  Click **New Student Directory**  *Check results*  Close GUI | Student Directory table is empty | Student Directory table is empty |
| Test 9: Export  (Modified) | Preconditions: Test 2 and Tests 5-7 have passed  Click **Save Student Directory**  Select test-files folder. Enter the filename actual\_student\_records.txt  Click **Save** (it’s ok to overwrite old results)  *Check results*  Close GUI | In Eclipse, right click on the Pack\_Scheduler project and select **Refresh.**  Open the test-files folder and open actual\_student\_records.txt in the editor.  The contents should be:   * Zahir King zking * Shannon Hansen shansen * Demetrius Austin daustin * Raymond Brennan rbrennan * Emerald Frost efrost * Lane Berg lberg * Griffith Stone gstone * Althea Hicks ahicks * Dylan Nolan dnolan * JONATHAN NGUYEN jhnguye4 * JONATHAN NGUYEN jhnguye5 | In Eclipse, right click on the Pack\_Scheduler project and select **Refresh.**  Open the test-files folder and open actual\_student\_records.txt in the editor.  The contents should be:   * Zahir King zking * Shannon Hansen shansen * Demetrius Austin daustin * Raymond Brennan rbrennan * Emerald Frost efrost * Lane Berg lberg * Griffith Stone gstone * Althea Hicks ahicks * Dylan Nolan dnolan * JONATHAN NGUYEN jhnguye4 * JONATHAN NGUYEN jhnguye5 |
| Test 10: blank first name | Preconditions:  Fill in everything but first name  Click **Add Student**  *Check results*  Close GUI | A pop-up dialog stating “Invalid first name” is displayed. | A pop-up dialog stating “Invalid first name” is displayed. |
| Test 11: blank last name | Preconditions:  Fill in everything but last name  Click **Add Student**  *Check results*  Close GUI | A pop-up dialog stating “Invalid last name” is displayed. | A pop-up dialog stating “Invalid last name” is displayed. |
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| Test 12: blank id | Preconditions:  Fill in everything but id  Click **Add Student**  *Check results*  Close GUI | A pop-up dialog stating “Invalid id” is displayed. | A pop-up dialog stating “Invalid id” is displayed. |
| Test 13: invalid email | Preconditions:  Fill in everything and for email type in jhnguye4@ncsu  Click **Add Student**  *Check results*  Close GUI | A pop-up dialog stating “Invalid email” is displayed. | A pop-up dialog stating “Invalid email” is displayed. |
| Test 14: invalid credits lower bound | Preconditions:  Fill in everything and for credits type in 1  Click **Add Student**  *Check results*  Close GUI | A pop-up dialog stating “Invalid max credits” is displayed. | A pop-up dialog stating “Invalid max credits” is displayed. |
| Test 14: invalid credits upper bound | Preconditions:  Fill in everything and for credits type in 20  Click **Add Student**  *Check results*  Close GUI | A pop-up dialog stating “Invalid max credits” is displayed. | A pop-up dialog stating “Invalid max credits” is displayed. |