# Lab 02: System Test Plan

## Test Overview

Using the GUI, follow the steps of the description given.

Upon failure of a test (expected results are not equal to the actual results), restart the program.

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1  Load an invalid directory. | Preconditions: None   1. Run StudentDirectoryPanel.java 2. Choose “Load Student Directory” 3. Open “test-files” 4. Open “invalid student records.txt” | No students are added to Student Directory | **No students were added. A bunch of “Exception is null” were printed to console** |
| Test 2  Load a valid directory | Preconditions: Test 1 finished   1. Choose “Load Student Directory” 2. Open “test-files” 3. Open “student\_records.txt” | 10 students are added to the Student Directory. Their first name /last name/Student ID should be displayed. These names should be in alphabetical order, Last Name, First Name, ID priority.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Demetrius | | | | | | | | | | Austin | | | | | | | | | | daustin | | | | | | | Lane | Berg | | | | | | | | | | lberg | | | | | | | Raymond | | | | | | | | Brennan | | | | | | | | | | | | | rbrennan | | | | | | | Emerald | | | | | | Frost | | | | | | | | | | efrost | | | | | | | | | Shannon | | | | | | | Hansen | | | | | | | | | | | shansen | | | | | | | | | Althea | | | | Hicks | | | | | | | | | | ahicks | | | | | | | | | Zahir | | King | | | | | | | | | | zking | | | | | | | | Dylan | | | Nolan | | | | | | | | | | dnolan | | | | | | | | | | | Cassandra | | | | | | | | | Schwartz | | | | | | | | | | | | | cschwartz | | | | | | | Griffith | | | | | Stone | | | | | | | | | | gstone | | | | | | | | | | | **10 Students were added. Their details are identical to expected, including order.** |
| Test 3  Remove a Student | Preconditions: Test 2 Finished   1. Choose student “Zahir King” 2. Click “Remove Student” | Zahir King’s details should be removed from the Student Directory  Every other student should still be displayed | **Zahir King was removed from Student Directory**  **All other students were unaffected** |
| Test 4  Making a valid Student. | Preconditions: Test 3 Finished   1. Under Student Information, add:  * First Name: Bob * Last Name: Builder * ID: bbuilder * Email: [bbuilder@ncsu.edu](mailto:bbuilder@ncsu.edu) * Password: building * Repeat Password: building * Max Credits: 15 | Under Student Directory, Bob, Builder and bbuilder should be under First Name, Last Name, and Student ID respectively.  Bob should be between “Brennan” and “Frost”  There’s no data in the Student Information section | **Bob, Builder, bbuilder are shown, at the bottom of the list**  **The Data Information Section was cleared.**  **Bob was in the expected location** |
| Test 5  Adding an invalid student due to repeat ID | Preconditions: Test 4 Finished   1. Under Student Information, add: 2. First Name: Brendan 3. Last Name: Builder 4. ID: bbuilder 5. Email: [bbuilder@ncsu.edu](mailto:bbuilder@ncsu.edu) 6. Password: password 7. Repeat Password: password 8. Max Credits: 13 | A pop-up saying “Invalid id”  Brendan Builder is not added to the Student Directory | **A pop-up saying “Invalid id”**  **Brendan builder was not added to the Student Directory**  **All of Brendan’s information is still stored in the Student Information section** |
| Test 6  Adding and removing students | Preconditions: Test 3 and 4 Finished   1. Under Student Information, add: 2. First Name: John 3. Last Name: Hopkins 4. ID: jhopk 5. Email: [jhopk@ncsu.edu](mailto:jhopk@ncsu.edu) 6. Password: password 7. Repeat Password: password 8. Max Credits: 12   After adding the student, remove the student. | Under Student Directory, the list should be the same as before from when you came into this test case. | **Under Student directory all the students are listed and John Hopkins the student that was most recently added is not listed.** |
| Test 7  Adding invalid student due to credits | Preconditions: Test 4 Finished   1. Under student information, add: 2. Any information for all fields except credits 3. For credits, enter a number that is out of the max credits range, let’s say 100. | A pop-up saying “Invalid max credits” should appear. This student should not be added to the directory. | **The “Invalid max credits” pop up appears because the max credits that was entered is out of range. The student directory stays the same as before.** |
| Test 8  New Student Directory | Preconditions: Test 6 Finished   1. Click New Student Directory | Student Directory table should be cleared and be empty. | **All students were removed as we wanted a New Student Directory. The Student Directory section/table is empty.** |
| Test 9  Load and Save Student Directory, but do not make a selection | Preconditions: Test 8 finished   1. Choose “Load Student Directory” 2. Open “test-files” 3. Open “student\_records.txt” 4. Choose “Save Student Directory” 5. Name the file actual\_directory.txt, but don’t select a location for the file, hit cancel. | A pop up should appear prompting to choose where to save the directory. After deciding to not want to save it or need to edit the directory and choosing cancel, a pop-up should appear saying “Invalid Selection”. | **Chose Save student directory, prompted to name and save file, chose to cancel and then a pop up window came up saying “Invalid Selection.” Then was brought back to the main GUI where the Student Directory was the same.** |
| Test 10  Load and Save Student Directory | Preconditions: Test 9 finished   1. Choose “Save Student Directory” 2. Name the file actual\_directory.txt, choose save in the folder test\_files. | Directory should save and “actual\_directory.txt” should read out all the information that was under the table “Student Directory”. | **After choosing save in the folder test\_files, actual\_directory.txt matches the table for Student Directory, and Student Directory information is still present in the GUI.** |
| Test 11  Invalid Email: Does not contain an ‘@’ Character  Author:  Sean Van Acker | Preconditions:   1. Run StudentDirectoryPanel.java 2. Choose “Load Student Directory” 3. Open “test-files” 4. Open “student\_records.txt”   Test:   1. Fill in the student information with the following:   First Name: Sean  Last Name: Van Acker  ID: smvanack  Email: smvanack.ncsu.edu  Password: pw  Repeat Password: pw  Max Credits: 15 | “Invalid Email” popup | **“Invalid Email” popup displayed** |
| Test 12  Invalid Email: Does not contain an ‘.’ Character  Author:  Sean Van Acker | Preconditions:  Test 11 Finished  Test:   1. Fill in the student information with the following:   First Name: Sean  Last Name: Van Acker  ID: smvanack  Email: smvanack@ncsu,edu  Password: pw  Repeat Password: pw  Max Credits: 15 | “Invalid Email” popup | **“Invalid Email” popup displayed** |
| Test 13  Invalid Email: The last ‘.’ Character in the email is before the ’@’ character  Author:  Sean Van Acker | Preconditions:  Test 12 Finished  Test:   1. Fill in the student information with the following:   First Name: Sean  Last Name: Van Acker  ID: smvanack  Email: smvanack.ncsu@edu  Password: pw  Repeat Password: pw  Max Credits: 15 | “Invalid Email” popup | **“Invalid Email” popup displayed** |
| Test 14  Invalid Email: Email is null or an empty string  Author:  Sean Van Acker | Preconditions:  Test 12 Finished  Test:   1. Fill in the student information with the following:   First Name: Sean  Last Name: Van Acker  ID: smvanack  Email:  Password: pw  Repeat Password: pw  Max Credits: 15 | “Invalid Email” popup | **“Invalid Email” popup displayed** |
| Test 15  Invalid First Name:  First name is null or empty string  Author:  Sean Van Acker | Preconditions:  Test 12 Finished  Test:   1. Fill in the student information with the following:   First Name:  Last Name: Van Acker  ID: smvanack  Email: smvanack@ncsu.edu  Password: pw  Repeat Password: pw  Max Credits: 15 | “Invalid First Name” popup | **“Invalid First Name” popup displayed** |
| Test 16  Invalid Last Name:  Last name is null or empty string  Author:  Sean Van Acker | Preconditions:  Test 12 Finished  Test:   1. Fill in the student information with the following:   First Name: Sean  Last Name:  ID: smvanack  Email: smvanack@ncsu.edu  Password: pw  Repeat Password: pw  Max Credits: 15 | “Invalid Last Name” popup | **“Invalid Last Name” popup displayed** |
| Test 17  Invalid Password:  Password is null or empty string  Author:  Sean Van Acker | Preconditions:  Test 12 Finished  Test:   1. Fill in the student information with the following:   First Name: Sean  Last Name: Vanacker  ID: smvanack  Email: smvanack@ncsu.edu  Password:  Repeat Password: pw  Max Credits: 15 | “Invalid Password” popup | **“Invalid Password” popup displayed** |