# 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

The FileChooser for the course catalog will load automatically.

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

Test 2-15 can all be ran in the same GUI instance without need for restart

.

|  |  |  |  |
| --- | --- | --- | --- |
| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1 – Invalid File | * Run StudentDirectoryPanel * Hit **Load Student Directory** * Click test-files/invalid\_ student\_records.txt * Check results | * StudentDirectoryPanel Loads * Student Directory is empty | * StudentDirectoryPanel Loads * Student Directory is empty |
| Test 2 – Valid file | * Run StudentDirectoryPanel * Hit **Load Student Directory** * Click test-files/student\_records.txt * Check results | * StudentDirectoryPanel Loads * Student Directory is populated * Students should be ordered in alphabetical order by last name | * StudentDirectoryPanel Loads * Student Directory is populated * Students can be selected in Student Directory * Students are ordered in order of last name |
| Test 3 – Add no selection | * Without having anything selected, hit the add student button * Check results * Hit Ok | * An error message will pop up | * An error message saying “Max credits must be a positive number between 3 and 18” pops up |
| Test 4 – Remove no selection | * Without having anything selected, hit the remove student button * Check results * Hit Ok | * An error message will pop up | * An error message saying “No student selected” pops up |
| Test 5-Add with selection | Precondition-Test 3 and 2 have passed   * Click the 2nd row under student directory * Hit the **Add Student** button * Check results | * The student will be added to some form of list | * An error message saying “Max credits must be a positive number between 3 and 18” pops up |
| Test 6-Remove with selection | Precondition-Test 4 and 2 have passed   * Click the 2nd row under student directory * Hit the **Remove Student** button * Check results | * The student will be removed from the student directory | * “Lane” has been removed from the student directory |
| Test 7-Adding with student details | * Precondition-Test 7 and 2 have passed * Type in the details for the student **First name = Troy** * **Last name = Boone** * **ID = tboone** * **Email =** [**tboone@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * Check results | * The student “Troy Boone” will be added to the student directory near the top | * The student “Troy Boone” was added to the student directory near the top |
| Test 8-Adding with incorrect student details | * Precondition-Test 7 and 2 have passed * Type in the details for the student **First name = Troy** * **Last name = Boone** * **ID = tboone1** * **Email =** [**tboone@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = notpassword * Max credit = 15 * Then hit the add student button | * An error will alert me that I can not add a student with these details | * An error message pops up saying “Password do not match” |
| Test 9-Adding student with duplicate ID | * Precondition-Test 7 and 2 have passed * Type in the details for the student **First name = Troy** * **Last name = Boone** * **ID = tboone** * **Email =** [**tboone@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = notpassword * Max credit = 15 * Then hit the add student button * Check results | * An error will alert me that I can not add a student with these details | * An error message pops up saying “Student already in system” |
| Test 10 - Reset | * Precondition-Test 2 has passed * Click **New Student Directory** * Check results | * The student directory window will be wiped clean | * The student directory window is wiped clean |
| Test 11 – Load multiple students | * Precondition-Test 7 and 2 have passed * Type in the details for the student * **First name = Troy** * **Last name = Boone** * **ID = tboone** * **Email =** [**tboone@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * **Add another student** * Type in the details for the student **First name = Roger** * **Last name = Walter** * **ID = rwalter** * **Email =** [rwalter**@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * **Add another student** * Type in the details for the student **First name = Tang** * **Last name = Feng** * **ID = tfeng** * **Email =** [tfeng**@ncsu.edu**](mailto:tfeng@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * Check results | * 3 new students will be listed in the directory. Troy and Tang will be near the top while Roger will be near the bottom | * 3 new students are listed in the directory. Troy and Tang are near the top while Roger is near the bottom |
| Test 12-Re-Adding deleted student | * Precondition-Test 11 and 2 have passed * Select student “Tang Feng” and hit the remove student button * Type in the details for the student **First name = Tang** * **Last name = Feng** * **ID = tfeng** * **Email =** [tfeng**@ncsu.edu**](mailto:tfeng@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * Check results | * The student “Tang Feng” will be deleted * The student “Tang Feng” will be readded | * The student “Tang Feng” is deleted * The student “Tang Feng” was readded with the same details as it had before |
| Test 13 – Save directory to new file | * Precondition-Test 3 and 2 have passed * Hit the **Save Student Directory** button * Navigate to the test-files folder * Type in the name test and hit ok | * The GUI will remain the same. A text file will retain the student directory at the time of the button being clicked | * A textfile named test was generated that contains all the student information that was in the directory |
| Test 14 – Loading a saved directory | * Precondition-Test 13 and 2 have passed * Click **New Student Directory** * Click the **Save Student Directory** button * Navigate to test-files and select test file * Click ok * Check results | * The student directory will contain the saved student directory | * The student directory contains the saved student directory |
| Test 15-Adding duplicate students with different ids | * Precondition-Test 7 and 2 have passed * Type in the details for the student **First name = Troy** * **Last name = Boone** * **ID = tboone** * **Email =** [**tboone@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * Check results * Type in the details for the student **First name = Troy** * **Last name = Boone** * **ID = tboone1** * **Email =** [**tboone@ncsu.edu**](mailto:tboone@ncsu.edu) * Password = password * Repeat password = password * Max credit = 15 * Then hit the add student button * Check results | * Two students will be created. Both will have the name “Troy Boone”. There will be no conflict | * Both students were added with no conflict in ids tboone vs tboone1 |