# Lab 03: Black Box Test Plan

## Test Overview

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1:  Invalid File  Tests readStudentRecords() and processStudent methods  <also describe the equivalence class or boundary value under test> | Preconditions: None  Run Student\_Directory\_PanelGUI.  In the **Load Student Director** FileChooser dialog select: test-files/invalid\_student\_records.txt  Click **Select**  *Check results*  Close GUI | PackScheduleGUI loads  Student Directory is empty  Student Information only shows labels. | **PackScheduleGUI loads**  **Student Directory is empty**  **Student Information only shows labels.** |
| Test 2:  Test Invalid Max Credits | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name: John  Last name: Doe  ID: jdoe  Email: [jdoe@ncsu.edu](mailto:jdoe@ncsu.edu)  Password: pw  Repeat Password: pw  Max Credits:  Click **Add Student**  *Check results*  Close GUI | Pop up with message “Max credits must be a positive number between 3 and 18” | Pop up with message “Max credits must be a positive number between 3 and 18” |
| Test 3:  Valid Student info | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name: John  Last name: Doe  ID: jdoe  Email: [jdoe@ncsu.edu](mailto:jdoe@ncsu.edu)  Password: pw  Repeat Password: pw  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | Student should appear under the student directory:  First name: John  Last name: Doe  Student ID: jdoe | Student should appears under the student directory:  First name: John  Last name: Doe  Student ID: jdoe |
| Test 4:  Remove Student | Preconditions: Test 3 Passes  Run Student\_Directory\_panelGUI  In the **Student Directory,** John Doe should still be the included. **Select John Doe**  Click **Remove Student**  *Check results*  Close GUI | John is removed and Student directory is empty | John is removed and Student directory is empty |
| Test 5:  New Student Directory | Preconditions: Test 3 Passes  Run Student\_Directory\_panelGUI  In the **Student Directory,** John Doe should still be the included. **Select John Doe**  Click **New Student Directory**  *Check results*  Close GUI | John is removed and Student directory is empty | John is removed and Student directory is empty |
| Test 6:  Test Load Student Directory Valid File | Preconditions: None  Run Student\_Directory\_PanelGUI.  In the **Load Student Director** FileChooser dialog select: test-files/student\_records.txt  Click **Select**  *Check results*  Close GUI | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone |
| Test 7:  Test Add Existing Student | Preconditions: Test 3 and 6 Pass  Run Student\_Directory\_panelGUI  In the **Load Student Director** FileChooser dialog select: test-files/student\_records.txt  Click **Select**  *Check results*  In the **Student Directory,** the students from  In the **Student Information** section, input the following information:  First name: Zahir  Last name: King  ID: zking  Email: [zking@ncsu.edu](mailto:zking@ncsu.edu)  Password: pw  Repeat Password: pw  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone  “Student already in system.” Is displayed in the form of a pop-up window. | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone  “Student already in system.” Is displayed in the form of a pop-up window. |
| Test 8:  Test Invalid Email | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name: John  Last name: Doe  ID: jdoe  Email: [jdoe.ncsu@edu](mailto:jdoe.ncsu@edu)  Password: pw  Repeat Password: pw  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | Dialog box stating “Invalid email” is displayed  Return to Student Directory display | Dialog box stating “Invalid email” is displayed  John is not added to the directory  Return to Student Directory display |
| Test 9:  Test Invalid First Name | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name:  Last name: Doe  ID: jdoe  Email: [jdoe@ncsu.edu](mailto:jdoe@ncsu.edu)  Password: pw  Repeat Password: pw  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | Dialog box stating “Invalid first name” is displayed  Return to Student Directory display | Dialog box stating “Invalid first name” is displayed  John is not added to the directory  Return to Student Directory display |
| Test 10:  Test Invalid Last Name | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name: John  Last name:  ID: jdoe  Email: [jdoe@ncsu.edu](mailto:jdoe@ncsu.edu)  Password: pw  Repeat Password: pw  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | Dialog box stating “Invalid last name” is displayed  Return to Student Directory display | Dialog box stating “Invalid last name” is displayed  John is not added to the directory  Return to Student Directory display |
| Test 11:  Test Invalid ID | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name: John  Last name: Doe  ID:  Email: [jdoe@ncsu.edu](mailto:jdoe@ncsu.edu)  Password: pw  Repeat Password: pw  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | Dialog box stating “Invalid ID” is displayed  Return to Student Directory display | Dialog box stating “Invalid ID” is displayed  John is not added to the directory  Return to Student Directory display |
| Test 12:  Test Mis-matched Passwords | Preconditions: None  Run Student\_Directory\_panelGUI  In the **Student Information** section, input the following information:  First name: John  Last name: Doe  ID: jdoe  Email: [jdoe@ncsu.edu](mailto:jdoe@ncsu.edu)  Password: pw  Repeat Password: password  Max Credits: 18  Click **Add Student**  *Check results*  Close GUI | Dialog box stating “Passwords do not match” is displayed  Return to Student Directory display | Dialog box stating “Passwords do not match” is displayed  Return to Student Directory display |
| Test 13:  No Student Selected | Preconditions: None  Run Student\_Directory\_panelGUI  Click **Remove Student**  *Check results*  Close GUI | Dialog box stating “no student selected” is displayed | Dialog box stating “no student selected” is displayed |
| Test 14:  Save Course Records: Invalid | Preconditions: Test 6 passes  Run Student\_Directory\_PanelGUI.  In the **Load Student Director** FileChooser dialog select: test-files/student\_records.txt  Click **Select**  *Check results*  Click **Save Student Directory**  Navigate to the test-files folder  In the Save As box, type **output**  Click **Save**  *Check results*  Close GUI | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone  Dialog box stating “Unable to write file” is displayed | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone  A file is still created in the project folder which still contains the directory. It seems that the file defaults to .txt when you do not specify the extension. |
| Test 15:  Save Course Records: Valid | Preconditions: Test 6 passes  Run Student\_Directory\_PanelGUI.  In the **Load Student Director** FileChooser dialog select: test-files/student\_records.txt  Click **Select**  *Check results*  Click **Save Student Directory**  Navigate to the test-files folder  In the Save As box, type **valid\_output.txt**  Click **Save**  *Check results*  Close GUI | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone  Verify file to ensure valid\_output.txt has 10 lines and matches the Student Directory | 10 Student’s information is displayed in the Student Directory  Their ordered last names are:  Austin  Berg  Brennan  Frost  Hansen  Hicks  King  Nolan  Schwartz  Stone  valid\_output.txt has 10 lines and matches the Student Directory |