# Lab 02: System Test Plan

To run the tests:

* Right click on the PackScheduler project in Eclipse
* Select Run As >> Java Application
* If another pop up appears, select the option StudentDirectoryPanel

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1: Invalid File  Empty file | Preconditions: none  Load student directory  Test-files/invalid\_student\_records.txt  Check results. | PackScheduler window will appear with no students in directory, all general buttons and sections (Directory Buttons, Student Directory, Student Controls, and Student Information with its data empty) are on the screen. | **The window opens with proper sections and buttons, but no students.** |
| Test 2: Valid File  File with proper information | Preconditions: none  Load student directory  Test-files/student\_records.txt  Check results. | PackScheduler window will appear with 10 students in directory, all general buttons and sections (Directory Buttons, Student Directory, Student Controls, and Student Information with its data empty) are on the screen.  The 10 students are:   * Demetrius Austin * Lane Berg * Raymond Brennan * Emerald Frost * Shannon Hansen * Althea Hicks * Zahir King * Dylan Nolan * Cassandra Schwartz * Griffith Stone | **The window opens with proper sections and buttons, as well as 10 student in the directory section.** |
| Test 3: add student no info  Student with no constructors | Preconditions: student directory is empty  Add Student  Check results. | A pop up appears in the middle of the screen with the words “Invalid Password” | **Pop up appears, saying “Invalid password”** |
| Test 4: add student no name  Student with no name for constructor | Preconditions: student directory is empty  Type into Student Information…  First Name:  Last Name:  ID: sjay6148  Email: [sjay6148@ncsu.edu](mailto:sjay6148@ncsu.edu)  Password: 12345  Repeat Password: 12345  Max Credits: 9  Add Student  Check results. | A pop up appears in the middle of the screen with the words “Invalid First Name” | **Pop up appears, saying “Invalid first name”** |
| Test 5: add student invalid email  Email address with no @ symbol | Preconditions: student directory is empty  Type into Student Information…  First Name: Will  Last Name: Rhyne  ID: wrhyne7712  Email: [wrhyne7712.ncsu.edu](mailto:sjay6148@ncsu.edu)  Password: will  Repeat Password: will  Max Credits: 11  Add Student  Check results. | A pop up appears in the middle of the screen with the words “Invalid email” | **Pop up appears, saying “Invalid email”** |
| Test 6: add student invalid credits  Max credits more than max credits can be | Preconditions: student directory is empty  Type into Student Information…  First Name: Sam  Last Name: Callyhan  ID: scally1  Email: [sam.cally1@ncsu.edu](mailto:sam.cally1@ncsu.edu)  Password: pwrd  Repeat Password: pwrd  Max Credits: 100  Add Student  Check results. | A pop up appears in the middle of the screen with the words “Invalid max credits” | **Pop up appears, saying “Invalid max credits”** |
| Test 7: add students with duplications  Student with all constructor values present, but they all match another student in the directory | Preconditions: student directory is empty  Type into Student Information…  First Name: Cam  Last Name: Cole  ID: ccole2  Email: [ccole2@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: 0000  Repeat Password: 0000  Max Credits: 10  Add Student  Check results.  Type into Student Information…  First Name: Cam  Last Name: Cole  ID: ccole2  Email: [ccole2@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: 0000  Repeat Password: 0000  Max Credits: 10  Add Student  Check results. | 1. Cam Coles info is now in the Student Directory (Cam, Cole, ccole2) 2. A pop up appears in the middle of the screen with the words “Student already in system” | 1. **Cam’s student info appears in the Student directory** 2. **Pop up appears, saying “Student already in system”** |
| Test 8: add multiple students  Students with all constructor values present and all are unique  [modified] | Preconditions: Test 7 passes  Type into Student Information…  First Name: Chris  Last Name: Rain  ID: crain7  Email: crain7[@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: dogs  Repeat Password: dogs  Max Credits: 9  Add Student  Type into Student Information…  First Name: Evan  Last Name: Grace  ID: egrace6  Email: egrace6[@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: 818384  Repeat Password:818384  Max Credits: 10  Add Student  Type into Student Information…  First Name: Lynda  Last Name: Lemons  ID: llemons44  Email: llemons44[@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: 1111  Repeat Password: 1111  Max Credits: 11  Add Student  Check results. | Four students now appear in the Student Directory, ordered alphabetically by last name…   * Cam, Cole, ccole2 * Evan, Grace, egrace6 * Lynda, Lemons, llemons44 * Chris, Rain, crain7 | **There are now four students in the directory: Cam, Evan, Lynda, and Chris** |
| Test 9: remove students  Taking students out of current directory  [modified] | Preconditions: Tests 7 and 8 pass  Select Evan Grace in the Student Directory  Remove Student  Check results. | Three students now appear in the Student Directory…   * Cam, Cole, ccole2 * Lynda, Lemons, llemons44 * Chris, Rain, crain7 | **There are now three students in the directory: Cam, Lynda, and Chris** |
| Test 10: new student directory  Making this (Tests 5-9) into a new, unique directory  [modified] | Preconditions: Tests 7-9 pass  Save Student Directory  Test-files/new\_directory\_test10.txt  Save  Check results.  (Check file as well) | * The same directory appears in the PackScheduler * The file reads: Cam,Cole,ccole2,ccole2@ncsu.edu,mvFbM25qlhmShTffMLLmojdlafz51+dz7M7eZWBlKaA=,10 * Lynda,Lemons,llemons44,llemons44@ncsu.edu,D/4avRoIIVNTwjPW4AlhPpXuxCU4Mqdhryj/N6xaFQw=,11 * Chris,Rain,crain7,crain7@ncsu.edu,I7zS2D1MDycGQOxly+thoXhIViVcPJjdJew0BFNFg0g=,9 | **The directory in the PackScheduler is unchanged**  **The file:**  **Cam,Cole,ccole2,ccole2@ncsu.edu,mvFbM25qlhmShTffMLLmojdlafz51+dz7M7eZWBlKaA=,10**  **Lynda,Lemons,llemons44,llemons44@ncsu.edu,D/4avRoIIVNTwjPW4AlhPpXuxCU4Mqdhryj/N6xaFQw=,11**  **Chris,Rain,crain7,crain7@ncsu.edu,I7zS2D1MDycGQOxly+thoXhIViVcPJjdJew0BFNFg0g=,9** |
| Test 11: add to existing directory  Adding a student to a directory file that already exists | Preconditions: student directory is empty  Load Student Directory  Test-files/ncsu\_student\_records.txt  Check results.  Type into Student Information…  First Name: Sal  Last Name: Kunito  ID: skunito  Email: skunito[@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: password  Repeat Password: password  Max Credits: 11  Add Student  Check results. | 1. The Student Directory contains one Student: Zahir, King, zking 2. The Student Directory contains two Students: Zahir, King, zking   Sal, Kunito, skunito | 1. **Zahir is in the Student Directory** 2. **Zahir and Sal are in the Student Directory** |
| Test 12: remove from existing directory  Removing a student from a directory that already exists | Preconditions: Test 11 passes  Select Zahir King from Student Directory (column 1)  Remove Student  Check Results. | The Student Directory contains one Student: Sal, Kunito, skunito | **Sal is in the Student Directory** |
| Test 13: duplicate first name  Add a first name that already is present in the directory  (modified) | Preconditions: Tests 11 and 12 pass  Type into Student Information…  First Name: Sal  Last Name: Kal  ID: skal  Email: skal[@ncsu.edu](mailto:ccole2@ncsu.edu)  Password: 1234  Repeat Password: 1234  Max Credits: 10  Add Student  Check results. | The Student Directory contains two students (in alphabetical order by last name):  Sal, Kal, skal  Sal, Kunito, skunito | **Both Sals are in the Student Directory in the correct order** |
| Test 14: save existing directory  Save the directory that already exists  (modified) | Preconditions: Tests 11-13 pass  Save Student Directory  As test-files/updated\_ncsu\_student\_records.txt  Check results. (including the new file) | * The same directory appears in the PackScheduler * The file reads: Sal,Kal,skal,skal@ncsu.edu,A6xnQhbz4Vx2HuGl4lXwZ5U2I8iziLRFnhP5eNfIRvQ=,10   Sal,Kunito,skunito,skunito@ncsu.edu,XohImNooBHFR0OVvjcYpJ3NgPQ1qq73WKhHvch0VQtg=,11 | **The PackScheduler remains unchanged**  **The file:**  **Sal,Kal,skal,skal@ncsu.edu,A6xnQhbz4Vx2HuGl4lXwZ5U2I8iziLRFnhP5eNfIRvQ=,10**  **Sal,Kunito,skunito,skunito@ncsu.edu,XohImNooBHFR0OVvjcYpJ3NgPQ1qq73WKhHvch0VQtg=,11** |
| Test 15: new directory  Creating a new directory, but you have a directory already loaded into the PackScheduler | Preconditions: open test-files/actual\_student\_records.txt  Check results.  New Student Directory  Check results. | 1. 1 student appears in the Student Directory: Zahir, King, zking 2. The Student Directory is now empty | 1. **Zahir is in the Student Directory** 2. **The Student Directory is empty** |