# Lab 11: Black Box Test Plan

## Test Overview

To run the tests:

1. Right click on PackSchedulerGUI class in the Package Explorer.
2. Select Run As > Java Application

All tests files should be located in the test-files/ folder.

A registrar.properties file contains a username and password. Use the values in your registrar.properties for testing. We will use registrar.properties.id or registrar.properties.pw to designate those strings.

If you run all tests independently, you can close the GUI between each test. However, the tests are structured so that they may be run in order without shutting down the GUI.

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| T1: Invalid Login | Preconditions: PackSchedulerGUI has loaded  User ID: **lberg**  Password: **pw**  Click **Login**  Click **OK**  Click **Clear** | Pop up with message “User doesn’t exist.”  User ID and password text fields are cleared. | **The pop-up message shows “User doesn’t exist.”**  **With User ID and password text fields are cleared.** |
| T2: Registrar Login | Preconditions: PackSchedulerGUI has loaded  User ID: **registrar.properties.id**  Password: **registrar.properties.pw**  Click **Login** | View switches to Registrar panel with Student Directory functionality displayed | **The view switches to Registrar panel with Student Directory functionality displayed.** |
| T3: Load Student Directory | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2)  Click **Load Student Directory**  Select **test-files/student\_records.txt**  Click **Select** | 10 students are listed in alphabetical order by last name. The list starts with Demetrius Austin and ends with Griffith Stone. | **Loads all 10 students in alphabetical order and starts with Demetrius Austin and ends with Griffith Stone.** |
| T4: Add Invalid Student - no first name | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: * Last Name: **Wilkins** * ID: **pwilkins** * Email: **pwilkins@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Error Message: Invalid first name | **After clicking Add Student, The error message pops up and displays ”Invalid first name”** |
| T5: Add Invalid Student - no last name | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: * ID: **pwilkins** * Email: **pwilkins@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Error Message: Invalid last name | **After clicking Add Student, The error message pops up and displays ”Invalid last name”** |
| T6: Add Invalid Student - no id | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: **Wilkins** * ID: * Email: **pwilkins@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Error Message: Invalid id | **After clicking Add Student, The error message pops up and displays ”Invalid id”** |
| T7: Add Invalid Student - no email | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: **Wilkins** * ID: **pwilkins** * Email: * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Error Message: Invalid email | **After clicking Add Student, The error message pops up and displays ”Invalid email”** |
| T8: Add Invalid Student - invalid email | PPreconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: **Wilkins** * ID: **pwilkins** * Email: **pwilkinsncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Error Message: Invalid email | **The error message pops up and displays ”Invalid email”** |
| T9: Add Invalid Student - passwords don’t match | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: **Wilkins** * ID: **pwilkins** * Email: **pwilkins@ncsu.edu** * Password: **pw1** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Error Message: Passwords do not match | **The error message pops up and displays ”passwords do not match”** |
| T10: Add Invalid Student - zero max credits | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: **Wilkins** * ID: **pwilkins** * Email: **pwilkins@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **0**   Click **Add Student**  Click **OK** | User is added with max credits of 18. User is the last student in the list. | **User is added with max credits of 18. User is the last student in the list.** |
| T11: Add Invalid Student - 11 max credits | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Patrick** * Last Name: **Wilkins** * ID: **pwilkins2** * Email: **pwilkins2@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **19**   Click **Add Student**  Click **OK** | User is added with max credits of 18. User is the last student in the list. | **User is added with max credits of 18. User is the last student in the list.** |
| T13: Add Student - middle | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Rylee** * Last Name: **Puckett** * ID: **rpuckett** * Email: **rpuckett@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz | **Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz** |
| T14: Add Student - front | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.  Enter the following in the Student Information section:   * First Name: **Melvin** * Last Name: **Acevedo** * ID: **macevedo** * Email: **macevedo@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Melvin Acevedo is added to the Student Directory and is the first student in the list. | **Melvin Acevedo is added to the Student Directory and is the first student in the list.** |
| T15: Remove Student - no selection | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  Click **Remove Student** | Error Message: No student selected | **Error Message: No student selected** |
| T16: Remove Student - middle | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  Select **Shannon Hansen**  Click **Remove student** | Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list | **Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list** |
| T17: Remove Student - front | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T14 has run.  Select **Melvin Acevedo**  Click **Remove student** | Melvin Acevedo is removed. Demetrius Austin is front of the directory | **Melvin Acevedo is removed. Demetrius Austin is front of the directory** |
| T18: Remove Student - back | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12 has run.  Select **Patience Wilkins**  Click **Remove student**  Select **Patrick Wilkins**  Click **Remove student** | Patience Wilkins is removed. Patrick Wilkins remains as the last in the directory  Patrick Wilkins is removed. Griffith Stone is the last student in the directory. | **Patience Wilkins is removed. Patrick Wilkins remains as the last in the directory**  **Patrick Wilkins is removed. Griffith Stone is the last student in the directory.** |
| T19: Save Student Directory | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.  Click **Save Student Directory**  Select **test-files** directory and name the file **t19\_student\_directory.txt**. | Contents should be (note that the password hash may be different due to encoding):  Demetrius,Austin,daustin,Curabitur.egestas.nunc@placeratorcilacus.co.uk,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,18  Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,14  Raymond,Brennan,rbrennan,litora.torquent@pellentesquemassalobortis.ca,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,12  Emerald,Frost,efrost,adipiscing@acipsumPhasellus.edu,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,3  Althea,Hicks,ahicks,Phasellus.dapibus@luctusfelis.com,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,11  Zahir,King,zking,orci.Donec@ametmassaQuisque.com,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,15  Dylan,Nolan,dnolan,placerat.Cras.dictum@dictum.net,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,5  Rylee,Puckett,rpuckett,rpuckett@ncsu.edu,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,15  Cassandra,Schwartz,cschwartz,semper@imperdietornare.co.uk,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,4  Griffith,Stone,gstone,porta@magnamalesuadavel.net,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,17 | **All the lines have correct information and all of the lines are in correct order with passwords being encoded.** |
| T20: New Student Directory | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.  Click **New Student Directory** | An empty student directory is shown. | **Student directory is cleared and is empty.** |
| T21: Add Student - first | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T20 has run.  Enter the following in the Student Information section:   * First Name: **Patience** * Last Name: **Wilkins** * ID: **pwilkins** * Email: **pwilkins@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **15**   Click **Add Student**  Click **OK** | Patience Wilkins is added to the Student Directory and is the only student in the list. | **Patience Wilkins is added to the Student Directory and is the only student in the list.** |
| T22: Course Catalog view | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  Click **Course Catalog** | Course Catalog functionality displayed | **Course Catalog functionality displayed** |
| T23: Load Course Catalog | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2)  Click **Load Course Catalog**  Select **test-files/course\_records.txt**  Click **Select** | 13 courses are listed starting with CSC116-001 and ending with CSC316-001 | **A course catalog of 13 courses is displayed in correct order with CSC116-001 and ending with CSC316-001** |
| T24: Add Invalid Course - no name | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: * Course Title: **Computer Organization and Assembly Language** * Course Section: **001** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid course name | **The error message pops up and displays ”Invalid course name”** |
| T25: Add Invalid Course - no title | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: * Course Section: **001** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid course title | **The error message pops up and displays ”Invalid course title”** |
| T26: Add Invalid Course - no section | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid section number | **The error message pops up and displays ”Invalid section number”** |
| T27: Add Invalid Course - section too short | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: **0011** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid section number | **The error message pops up and displays ”Invalid section number”** |
| T28: Add Invalid Course - section too long | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: **01** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid section number | **The error message pops up and displays ”Invalid section number”** |
| T29: Add Invalid Course - no instructor id | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: **001** * Credits: **3** * Instructor Id: * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid instructor unity id | **The error message pops up and displays ”Invalid instructor unity id”** |
| T30: Add Invalid Course - end time after start time | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: **001** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **11:30 AM** * End Time: **10:15 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: Invalid meeting times | **The error message pops up and displays ”Invalid meeting times”** |
| T31: Add Invalid Course - no meeting days | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: **001** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days:   Click **Add Course**  Click **OK** | Error Message: Invalid meeting days | **The error message pops up and displays ”Invalid meeting days”** |
| T32: Add Course - end | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC236** * Course Title: **Computer Organization and Assembly Language** * Course Section: **001** * Credits: **3** * Instructor Id: **freeh** * Enrollment Cap: **10** * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | CSC236-001 is added to the list at the end following CSC230-001 | **CSC236-001 is added to the list at the end following CSC230-001** |
| T33: Add Course - front | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC113** * Course Title: **MATLAB** * Course Section: **001** * Credits: **3** * Instructor Id: **tbdimitr** * Enrollment Cap: **250** * Start Time: **3:00 PM** * End Time: **3:50 PM** * Meeting Days: **Monday & Wednesday**   Click **Add Course**  Click **OK** | CSC113-001 is added to the list at the front and is followed by CSC116-001. | **CSC113-001 is added to the list at the front and is followed by CSC116-001.** |
| T34: Add Course - middle | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.  Enter the following in the Course Information section:   * Course Name: **CSC116** * Course Title: **Introduction to Programming - Java** * Course Section: **006** * Credits: **3** * Instructor Id: **jdyoung2** * Enrollment Cap: **33** * Start Time: **10:40 AM** * End Time: **12:30 PM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | CSC116-006 is added to the list between CSC116-003 and CSC216-001. | **CSC116-006 is added to the list between CSC116-003 and CSC216-001.** |
| T35: Remove Course - no selection | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  Click **Remove Course** | Error Message: No course selected | **The error message pops up and displays ”No course selected”** |
| T36: Remove Course - middle | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  Select **CSC216-001**  Click **Remove Course** | CSC216-001 is removed. CSC116-006 is followed by CSC216-002. | **CSC216-001 is removed. CSC116-006 is followed by CSC216-002.** |
| T37: Remove Course - front | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T33 has run.  Select **CSC113-001**  Click **Remove Course** | CSC113-001 is removed. CSC116-001 is the first course in the catalog | **CSC113-001 is removed. CSC116-001 is the first course in the catalog** |
| T38: Remove Course - back | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32 has run.  Select **CSC236-001**  Click **Remove Course** | CSC236-001 is removed.  CSC316-001 is the last course in the catalog | **CSC236-001 is removed.**  **CSC316-001 is the last course in the catalog** |
| T39: Save Course Catalog | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32-T38 have run.  Click **Save Course Catalog**  Select **test-files** directory and name the file **t39\_course\_catalog.txt**. | Contents should be:  CSC116,Intro to Programming - Java,001,3,jdyoung2,10,MW,910,1100  CSC116,Intro to Programming - Java,002,3,spbalik,10,MW,1120,1310  CSC116,Intro to Programming - Java,003,3,tbdimitr,10,TH,1120,1310  CSC116,Introduction to Programming - Java,006,3,jdyoung2,33,TH,1040,1230  CSC216,Software Development Fundamentals,001,3,sesmith5,10,TH,1330,1445  CSC216,Software Development Fundamentals,002,3,ixdoming,10,MW,1330,1445  CSC216,Software Development Fundamentals,601,3,jctetter,10,A  CSC217,Software Development Fundamentals Lab,202,1,sesmith5,10,M,1040,1230  CSC217,Software Development Fundamentals Lab,211,1,sesmith5,10,T,830,1020  CSC217,Software Development Fundamentals Lab,223,1,sesmith5,10,W,1500,1650  CSC217,Software Development Fundamentals Lab,601,1,sesmith5,10,A  CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,10,MWF,935,1025  CSC230,C and Software Tools,001,3,dbsturgi,10,MW,1145,1300  CSC316,Data Structures and Algorithms,001,3,jtking,10,MW,830,945 | **Each line of the contents has the correct information and all the line are in the correct order** |
| T40: New Course Catalog | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.  Click **New Course Catalog** | An empty course catalog is shown. | **An empty course catalog is shown.** |
| T41: Add Course - first | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T20 has run.  Enter the following in the Course Information section:   * Course Name: **CSC216** * Course Title: **Programming Concepts - Java** * Course Section: **601** * Credits: **4** * Instructor Id: **jep** * Start Time: * End Time: * Meeting Days: **Arranged**   Click **Add Course**  Click **OK** | CSC216-601 is added to the list | **Popup with Enrollment cap should be between 0 and 250 is shown** |
| T42: Logout | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  Click **Logout** | User is returned to the Login view | **User is returned to the Login view** |
| T42: Login Student | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run  User ID: **pwilkins**  Password: **pw**  Click: **Login** | pwilkins is logged in and is switched to the user view. The user can see the course catalog and register for courses.  You’ll need to create your own system tests for this functionality! | **pwilkins is logged in and all required buttons are shown.** |
| T43: Successful enrolling students | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run  Add a course with an enrollment cap of 10.  Enroll a student in the course roll | The course is created  Student is successfully enrolled | **The course is created**  **Student is successfully enrolled** |
| T44: Add more students which exceeds capacity | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run  Attempt to enroll a student in the course created in test 43. | When you add the student a popup appears with the message “Unable to enroll the student in the course.” | When you add the student a popup appears with the message “Unable to enroll the student in the course.” |
| T45: Drop a student from the roll | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run  Add a course with an enrollment cap of 10.  Enroll 10 different valid students in the roll and enroll one more student which enrolls in the waitlist  Now drop 1 student from the roll | The student that was in the waitlist will be added to the roll | The student that was in the waitlist was added to the roll as the last student and the student that was removed didn’t have the course in his schedule |
| T46: Drop a student from the waitlist | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T46 has run  Add 4 more valid students in the waitlist  Now drop one of the students from the waitlist | The student should be dropped from the waitlist, and the waitlist order should be maintained | The student was dropped from the waitlist and the waitlist order remained the same as before. Now there are 3 students in the waitlist |
| T47: Create Faculty | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  The registrar makes New Faculty Directory by clicking the button. | A new Faculty Directory is created, and any existing faculty is cleared. The display is updated so that the Faculty Directory list is empty. | A new Faculty Directory is created, and any existing faculty is cleared. The display is updated so that the Faculty Directory list is empty. |
| T48: Load Faculty Directory | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  The registrar clicks the **Load Faculty Directory** button. | A dialog appears and the user can browse the file system. 1.List of faculties is created from valid records. Invalid records are ignored.  2. Faculty are added to the faculty directory at the end of the list. | A dialog appears and the user can browse the file system. 1.List of faculties is created from valid records. Invalid records are ignored.  2. Faculty are added to the faculty directory at the end of the list. |
| T49: Save Faculty Directory | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).  The registrar clicks the Save Faculty Directory button. | 1. A dialog appears, and the user selects the location to save the list with naming the file.  2. The list of faculties is saved to a text file with a faculty record on each line. They are saved in the order of insertion, each new faculty is added to the end of the list. | 1. A dialog appears, and the user selects the location to save the list with naming the file.  2. The list of faculties is saved to a text file with a faculty record on each line. They are saved in the order of insertion, each new faculty is added to the end of the list. |
| T50: Assign Faculty to Course | Preconditions: PackSchedulerGUI has loaded, and registrar user is logged in (T2).  The registrar selects a course and the faculty member who will teach the course.  1. Select the Course Catalog section: CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10  2. Select awitt in the Faculty Directory section.  The registrar clicks “Assign Faculty to Course”. | After selecting Course Catalog section: CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10 , there should not be any instructor listed.  Awitt should be listed as the instructor for CSC116, 001, Intro To Programming MW 9:10AM – 11:00AM, 10 after assigning the faculty to course. | After selecting Course Catalog section: CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10 , there is no instructor listed.  Awitt is listed as the instructor for CSC116, 001, Intro To Programming MW 9:10AM – 11:00AM, 10 after assigning the faculty to course. |
| T51: Remove Faculty from Course | Preconditions: PackSchedulerGUI has loaded, and registrar user is logged in (T2).  Select the Course Catalog section: CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10  Click Remove Faculty from Course and Check Results | Awitt should be listed as the instructor in the Course details section. After removing faculty from the course,the instructor changed to empty. | Awitt is listed as the instructor in the Course details section. After removing faculty from the course,the instructor changed to empty. |
| T52: Reset Faculty Schedule | Preconditions: PackSchedulerGUI has loaded, and registrar user is logged in (T2).  Select the Course Catalog section: CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10  Select awitt in the Faculty Directory section.  Assign Faculty to Course.  Click reset faculty schedule | After assigning awitt to the course , Ashley Whitt should be listed as the instructor.  After resetting faculty schedule, CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10 , should now be empty with the instructor label. | After assigning awitt to the course , Ashley Whitt is listed as the instructor.  After resetting faculty schedule, CSC116, 001, Intro to Programming MW 9:10AM – 11:00AM, 10 , is now empty with the instructor label. |