# Lab 09: 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.

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.

Key:

* New Tests: **Color for new tests**
* Modified Tests: **Color for modified tests**

Test Summary:

* T1 – T21: Student Directory functionality
* T22 – T42: Course Catalog functionality
* T42 – T54: Student Schedule functionality

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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. | Pop up with message “User doesn’t exist.”  User ID and password text fields are cleared. |
| T2: Registrar Login | Preconditions: PackSchedulerGUI has loaded  User ID: **registrar**  Password: **Regi5tr@r**  Click **Login** | View switches to Registrar panel with Student Directory functionality displayed | 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. | 10 students are listed in alphabetical order by last name. The list 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 | Error Message: 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 | Error Message: 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 | Error Message: 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 | Error Message: 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 | Error Message: 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 | Error Message: 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** | Error Message: Invalid max credits | Error Message: Invalid max credits |
| 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: **Patience** * Last Name: **Wilkins** * ID: **pwilkins** * Email: **pwilkins@ncsu.edu** * Password: **pw** * Repeat Password: **pw** * Max Credits: **19**   Click **Add Student**  Click **OK** | Error Message: Invalid max credits | Error Message: Invalid max credits |
| T12: Add Student - end | 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: **15**   Click **Add Student**  Click **OK** | Patience Wilkins is added to the Student Directory and is the last student in the list. | Patience Wilkins is added to the Student Directory and 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** | Patience Wilkins is removed. Griffith Stone is last in the directory | Patience Wilkins is removed. Griffith Stone is last 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 | 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 |
| 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. | An empty student directory is shown. |
| 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** | 8 courses are listed starting with CSC116-001 and ending with CSC230-001 | 8 courses are listed starting with CSC116-001 and ending with CSC230-001 |
| 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: **lasher** * 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 name | Error Message: Invalid 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: **lasher** * 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 title | Error Message: Invalid 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: **lasher** * 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 | Error Message: Invalid section |
| 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: **lasher** * 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 | Error Message: Invalid section |
| 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: **lasher** * 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 | Error Message: Invalid section |
| 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 id | Error Message: Invalid instructor 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: **lasher** * Enrollment Cap: 10 * Start Time: **11:30 AM** * End Time: **10:15 AM** * Meeting Days:   Click **Add Course**  Click **OK** | Error Message: Invalid meeting times | Error Message: 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: **lasher** * 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 meeting days | Error Message: Invalid meeting days |
| T32: Enrollment Cap less than 10 | 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: **lasher** * Enrollment Cap: 9 * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday & Thursday**   Click **Add Course**  Click **OK** | Error Message: blank  The course is not added to the Couse Catalog | Error Message: Enrollment Cap must be between 10 - 250  The course is not added to the Course |
| T33: Enrollment Cap greater than 250 | 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: **lasher** * Enrollment Cap: 251 * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday and Thursday**   Click **Add Course**  Click **OK** | Error Message: blank  The course is not added to the Couse Catalog | Error Message: Enrollment Cap must be between 10 – 250  The course is not added to the Course Catalog |
| T34: No enrollment Cap | 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: **lasher** * Enrollment Cap: * Start Time: **10:15 AM** * End Time: **11:30 AM** * Meeting Days: **Tuesday and Thursday**   Click **Add Course**  Click **OK** | Error Message: Enrollment cap must be between 10 – 250  The course is not added to the Course Catalog | Error Message: Enrollment Cap must be between 10 – 250.  After closing the box another message dialog appears with a blank message |
| T35: 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: **lasher** * 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 |
| T36: 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: **Introduction to Computer - MATLAB** * Course Section: **001** * Credits: **3** * Instructor Id: **tbdimitr** * 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. |
| T37: 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** * 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. |
| T38: Remove Course - no selection | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). The Course Catalog functionality has been loaded (T22).  Click **Remove Course** | Error Message: No course selected | Error Message: No course selected |
| T39: Remove Course - middle | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Course Catalog has been loaded (T23).  Select **CSC216-001**  Click **Remove Course** | CSC216-001 is removed. CSC116-003 is followed by CSC216-002. | CSC216-001 is removed. CSC116-003 is followed by CSC216-002. |
| T40: 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 |
| T41: 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.  CSC230-001 is the last course in the catalog | CSC236-001 is removed.  CSC230-001 is the last course in the catalog |
| T42: 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,MW,910,1100  CSC116,Intro to Programming - Java,002,3,spbalik,MW,1120,1310  CSC116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1310  CSC116, Introduction to Programming - Java,006,3,jdyoung2,TH,1040,1230  CSC216,Programming Concepts - Java,002,4,jtking,MW,1330,1445  CSC216,Programming Concepts - Java,601,4,jep,A  CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025  CSC230,C and Software Tools,001,3,dbsturgi,MW,1145,1300 | CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910,1100  CSC116,Intro to Programming - Java,002,3,spbalik,MW,1120,1310  CSC116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1310  CSC116,Introduction to Programming - Java,006,3,jdyoung2,TH,1040,1230  CSC216,Programming Concepts - Java,002,4,jtking,MW,1330,1445  CSC216,Programming Concepts - Java,601,4,jep,A  CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025  CSC230,C and Software Tools,001,3,dbsturgi,MW,1145,1300 |
| T43: 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. |
| T44: 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 | CSC216-601 is added to the list |
| T45: 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 |
| T46: Login Student | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run. Registrar has logged out by clicking the **Log Out** button  User ID: **pwilkins**  Password: **pw**  Click: **Login** | pwilkins is logged in and is switched to the user view. The course catalog at the top is displayed and “Open Seats” is also displayed  Add course, remove course, reset schedule, display final schedule, set title, and logout buttons are featured | pwilkins is logged in and is switched to the user view. The course catalog at the top is displayed and “Open Seats” is also displayed  Add course, remove course, reset schedule, set title, and logout buttons are featured  Display final schedule button is muted |
| T47: Student attempt to add unselected Course to student schedule | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 and T41 has run. Registrar has logged out by clicking the **Log Out** button.  User ID: **pwilkins**  Password: **pw**  Click: **Login**  Click: **Add Course** | “No course selected in the catalog” pop-up msg is displayed | “No course selected in the catalog” pop-up msg is displayed |
| T48: Student Adds Course to his/her schedule | Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 and T41 has run. Registrar has logged out by clicking the **Log Out** button.  User ID: **pwilkins**  Password: **pw**  Click: **Login**  Click on **CSC216 601 Programming Concepts – Java Arranged** in the Course Catalog  Click: **Add Course** | The Course is added the user’s schedule and the open seats column displays 9 since pwilkins has been added to the class  Pwilkins is added to the course roll | The Course is added the user’s schedule and the open seats column displays 9 since pwilkins has been added to the class  The course roll is not displayed |
| T49: Student attempt to remove unselected course | Preconditions: PackSchedulerGUI has loaded and pwilkins is logged in  T44 has run.  Click: **Remove Course** | “No item selected in the schedule” pop-up msg appears | “No item selected in the schedule” pop-up msg appears |
| T50: Select a course in the course catalog | Preconditions: PackSchedulerGUI has loaded and pwilkins is logged in. T44 has run.  Click on **CSC216 – Programming Concepts** in the course catalog | The course details of name, instructor, section, and credits are displayed in the Course Details section  The number of open seats are displayed as 10 in course detail | The course details of name, instructor, section, and credits are displayed in the Course Details section  The number of open seats are displayed as 10 in course detail |
| T51: Student attempt to remove selected course from schedule | Preconditions: PackSchedulerGUI has loaded and pwilkins is logged in  T44 has run.  Click on **CSC216 Programming Concepts – Java** in “My Schedule”  Click: **Remove Course** | The Course is removed from My Schedule and is still displayed in Course Catalog  The student is removed from the course roll | The Course is removed from My Schedule and is still displayed in Course Catalog  Course roll not displayed |
| T52: Reset Schedulle | Preconditions: PackSchedulerGUI has loaded and pwilkins is logged in. T44 has run.  Click: **Reset Schedule** | The schedule is cleared and course catalog contains CSC216. The schedule title is reset | The schedule is cleared and course catalog contains CSC216. The schedule title is reset |
| T53: Set a blank title | Preconditions: PackSchedulerGUI has loaded and pwilkins is logged in. T44 has run.  Delete “My Schedule” in the text field labeled “Schedule Title”  Click: **Set Title** | The text field for “My Schedule” remains blank | The text field for “My Schedule” remains blank |
| T54: Load the course catalog | Preconditions: PackSchedulerGUI has loaded Registrar has loaded a course catalog (T23) and added new student (T21). Logs out by clicking **Log Out** button. User pwilkins logs in | The course catalog beginning with CSC116-001 and ending with CSC226-001 is displayed in Course Catalog section | The course catalog beginning with CSC116-001 and ending with CSC226-001 is displayed in Course Catalog section |
| T55: Student attempt to add course with time conflict | Preconditions: PackSchedulerGUI has loaded and T51 has run.  Select **CSC116-001 Intro to Programming – Java** from the Course Catalog  Click **Add Course**  Select **CSC226-001 Discrete Mathematics for Computer Scientists** from the Course Catalog  Click: **Add Course** | “Course cannot be added to the schedule” pop-up msg is displayed | “Course cannot be added to the schedule” pop-up msg is displayed |
| T56: Student attempt to add course that already exists in student schedule | Preconditions: PackSchedulerGUI has loaded and T51 has run.  Select **CSC116-001 Intro to Programming – Java** from the Course Catalog  Click **Add Course**  Select **CSC116-001 Intro to Programming – Java** from the Course Catalog  Click **Add Course** | “Course cannot be added to schedule” pop-up msg is displayed | “Course cannot be added to schedule” pop-up msg is displayed |
| T57: Display Final Schedule | Preconditions: PackSchedulerGUI has loaded and T53 has run.  Click **Display Final Schedule** button | The student’s schedule is displayed showing the courses in a table listing | The Display Final Schedule button is muted and cannot be selected |
| T58: | Preconditions: PackSchedulerGUI has loaded and T53 has run. Pwilkins has logged in. T48 has run, so a course exists in the schedule  Pwilkins clicks the logout button | Packscheduler displays the login screen | Packscheduler displays the login screen |
| T59: | Preconditions: PackSchedulerGUI has loaded and T53 has run. Pwilkins has logged in. T48 has run, so a course exists in the schedule  Pwilkins clicks the logout button | Packscheduler displays the login screen | Packscheduler displays the login screen |