# Lab 08: 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. | **Pop up with “User doesn’t exist.”**  **User ID and password text 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 | **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 Pop up: 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 Pop Up: 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 Pop up: 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 Pop up: 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 Pop up: 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 Pop up: 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. | **Patience Wilkins is added to the Student Directory list at the last position. Max credits is set to 18.** |
| 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. | **Patrick Wilkins is not added to the list. Error pup up message: “Invalid max credits”** |
| 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 | **Student is added to the Student Directory list between Nolan and 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. | **Student is added to the list at the first position** |
| 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 pop up: 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 | **Student Hansen is removed from the list. Hicks is now below Frost.** |
| 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 | **Student Acevedo is removed from the list. Austin is now the first Student in the list.** |
| 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. | **Student Patience Wilkins is removed from the list. Stone is now the last student in the list.**  **T11 was failed, so Patrick Wilkins was never added.** |
| 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 | **Contents of the saved file:**  **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. | **The student directory list is emptied.** |
| 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. | **Student is added to the list. Student 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 panel is 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 | **13 courses are listed with CSC116-001 as the first, and CSC316-001 as the last.** |
| 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 | **Error message pop up:**  **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: **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 | **Error pop up 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: **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 | **Error pop up 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: **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 | **Error pop up 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: **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 | **Error pop up 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 unity id | **Error pop up 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: **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 | **Error message pop up: End time cannot be before start time** |
| 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 | **Error message pop up: 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 | **Course CSC236 is added to the list before CSC 316 and after CSC230.** |
| 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. | **Course CSC113 is added to the top of the list.** |
| 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 list after CSC116- 003 and before 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 | **Error message pop up: 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 is removed. CSC116-001 is now the top of the list.** |
| 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 | **CSC 236-001 is removed. CSC316-001 is now the bottom of the list.** |
| 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 | **Saved file contents:**  **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,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** |
| 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. | **The course catalog list is emptied.** |
| 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 | **CSC216-601 is added to the list. It is the only Course in the list.** |
| 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 panel.** |
| T43: 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! | **Student pwilkins is logged in and is shown the student registration panel. The courses are loaded, with empty seats showing, in the catalog, and the schedule is empty.** |
| T44:  Add Course to Student Schedule | Preconditions: T43 has passed  Select Course **CSC116 – 001**  Click: **Add Course** | CSC116-001 is added to the Students schedule. | **Course CSC116-001 is added to the schedule.** |
| T45: Add Conflicting Course to Schedule | Preconditions: T44 has passed  Select Course: **CSC226 – 001**  Click:  **Add Course** | Error message: This course cannot be added due to a conflict. | **Error message pop-up: This course cannot be added due to a conflict.** |
| T46: Remove Course | Preconditions: T44 has passed  Select Course: **CSC216 – 601**  Click: **Add Course**  Select **CSC 216 – 601** in the Student’s schedule  Click: **Remove Course** | CSC 216 – 601 is added to the schedule.  CSC216- 601 is removed from the schedule. | **CSC 216 – 601 is added to the schedule.**  **CSC216 – 601 is removed from the schedule.** |
| T47: Change Schedule Title | Preconditions: T43 has passed  Click in the Schedule Title box  Type: **“Schedules are okay”**  Click:  **Set Title** | The title of the schedule changes to “Schedules are okay” | **The title of the Schedule is changed to “Schedules are okay”** |
| T48:  Reset Schedule | Preconditions: T44 has passed  Click: **Reset Schedule** | The schedule is now empty, the schedule title returns to “My Schedule” | **The schedule title changes to “My Schedule” and the schedule is now empty.** |
| T49: show open seats after adding to schedule | Preconditions: T43 has passed  Select **CSC116 -001**  Click **Add Course** | Both the course catalog and the schedule list the open seats as 9 in the added Course | **Open Seats in both the schedule and course catalog now read 9.** |
| T50: hit max credits | Preconditions: T2 and T21 have passed  Click **Logout**  Enter username: registrar  Enter password: Regi5tr@r  Click Login  Click Course Catalog  Click Load Course Catalog  Select test-files/t50\_course\_records.txt  Click Logout  Enter pwilkins  Enter pw  Click Login  Select CSC101  Click Add Course  Click CSC102  Click Add Course  Click CSC103  Click Add Course  Click CSC 104  Click Add Course | Error Pop up: Course cannot be added to the schedule | **Pop up error: Course cannot be added to the schedule.** |
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