

Lab 07: 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.

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	View switches to Registrar panel with Student Directory functionality displayed

		panel with Student Directory functionality displayed	
T3: Load Student Directory	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2)</p> <p>Click Load Student Directory Select test-files/student_records.txt Click Select</p>	<p>10 students are listed in alphabetical order by last name. The list starts with Demetrius Austin and ends with Griffith Stone.</p>	<p>10 students are listed in alphabetical order by last name. The list starts with Demetrius Austin and ends with Griffith Stone.</p>
T4: Add Invalid Student - no first name	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	<p>Error Message: Invalid first name</p>	<p>Error Message: Invalid first name</p>
T5: Add Invalid Student - no last name	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience 		<p>Error Message: Invalid last name</p>

	<ul style="list-style-type: none"> • Last Name: • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid last name	
T6: Add Invalid Student - no id	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid id	Error Message: Invalid id
T7: Add Invalid Student - no email	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: • Password: pw 		Error Message: Invalid email

	<ul style="list-style-type: none"> • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid email	
T8: Add Invalid Student - invalid email	<p>PPreconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkinsncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid email	Error Message: Invalid email
T9: Add Invalid Student - passwords don't match	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw1 • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p>	Error Message: Passwords do not match	Error Message: Passwords do not match

	Click OK		
T10: Add Invalid Student - zero max credits	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 0 <p>Click Add Student</p> <p>Click OK</p>	<p>Error Message: Invalid max credits</p>	<p>Error Message: Invalid max credits</p>
T11: Add Invalid Student - 11 max credits	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 19 <p>Click Add Student</p> <p>Click OK</p>	<p>Error Message: Invalid max credits</p>	<p>Error Message: Invalid max credits</p>
T12: Add Student -	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p>		<p>Patience Wilkins is added to the Student Directory and is</p>

end	<p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	<p>Patience Wilkins is added to the Student Directory and is the last student in the list.</p>	<p>the last student in the list.</p>
T13: Add Student - middle	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p> <ul style="list-style-type: none"> • First Name: Rylee • Last Name: Puckett • ID: rpuckett • Email: rpuckett@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	<p>Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz</p>	<p>Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz</p>
T14: Add Student - front	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p> <p>Enter the following in the Student Information section:</p>		<p>Melvin Acevedo is added to the Student Directory and is the first student in the list.</p>

	<ul style="list-style-type: none"> • First Name: Melvin • Last Name: Acevedo • ID: macevedo • Email: macevedo@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Melvin Acevedo is added to the Student Directory and is the first student in the list.	
T15: Remove Student - no selection	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Click Remove Student</p>	Error Message: No student selected	Error Message: No student selected
T16: Remove Student - middle	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Select Shannon Hansen</p> <p>Click Remove student</p>	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	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T14 has run.</p> <p>Select Melvin Acevedo</p> <p>Click Remove student</p>	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	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12 has run.</p> <p>Select Patience Wilkins</p> <p>Click Remove student</p>	<p>Patience Wilkins is removed. Griffith Stone is last in the directory</p>	<p>Patience Wilkins is removed. Griffith Stone is last in the directory</p>
T19: Save Student Directory	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.</p> <p>Click Save Student Directory</p> <p>Select test-files directory and name the file t19_student_directory.txt.</p>	<p>Contents should be (note that the password hash may be different due to encoding):</p> <p>Demetrius,Austin,daustin,Cura bitur.egestas.nunc@placerator cilacus.co.uk,0ÉRú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,18 Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,14 Raymond,Brennan,rbrennan,lit ora.torquent@pellentesquema ssalobortis.ca,0ÉRú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,12 Emerald,Frost,efrost,adipiscing @acipsumPhasellus.edu,0ÉRú ±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,3 Althea,Hicks,ahicks,Phasellus. dapibus@luctusfelis.com,0ÉRú ±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,11 Zahir,King,zking,orci.Donec@a metmassaQuisque.com,0ÉRú± "ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,15</p>	<p>Contents should be (note that the password hash may be different due to encoding):</p> <p>Demetrius,Austin,daustin,Cura bitur.egestas.nunc@placerator cilacus.co.uk,0ÉRú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,18 Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,14 Raymond,Brennan,rbrennan,lit ora.torquent@pellentesquema ssalobortis.ca,0ÉRú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,12 Emerald,Frost,efrost,adipiscing @acipsumPhasellus.edu,0ÉRú ±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,3 Althea,Hicks,ahicks,Phasellus. dapibus@luctusfelis.com,0ÉR ú±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,11 Zahir,King,zking,orci.Donec@a metmassaQuisque.com,0ÉRú ±"ÀùuŸ!Ù\7X²F'pâ9•{-OîFâapÄ,15</p>

		Dylan,Nolan,dnolan,placerat.C ras.dictum@dictum.net,0ÉRú± "ÃùuŸ!Û\7X²F'pâ9•{- OîFâapÄ,5 Rylee,Puckett,rpuckett,rpuckett @ncsu.edu,0ÉRú±"ÃùuŸ!Û\7X ²F'pâ9•{-OîFâapÄ,15 Cassandra,Schwartz,cschwartz, semper@imperdietornare.co. uk,0ÉRú±"ÃùuŸ!Û\7X²F'pâ9•{- OîFâapÄ,4 Griffith,Stone,gstone,porta@m agnamalesuadavel.net,0ÉRú±" ÃùuŸ!Û\7X²F'pâ9•{- OîFâapÄ,17	Dylan,Nolan,dnolan,placerat.C ras.dictum@dictum.net,0ÉRú± "ÃùuŸ!Û\7X²F'pâ9•{- OîFâapÄ,5 Rylee,Puckett,rpuckett,rpuckett @ncsu.edu,0ÉRú±"ÃùuŸ!Û\7 X²F'pâ9•{-OîFâapÄ,15 Cassandra,Schwartz,cschwartz, semper@imperdietornare.co. uk,0ÉRú±"ÃùuŸ!Û\7X²F'pâ9•{- OîFâapÄ,4 Griffith,Stone,gstone,porta@m agnamalesuadavel.net,0ÉRú±" ÃùuŸ!Û\7X²F'pâ9•{- 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: <ul style="list-style-type: none"> • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 Click Add Student	Patience Wilkins is added to the Student Directory and is	Patience Wilkins is added to the Student Directory and is the only student in the list.

	Click OK	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: <ul style="list-style-type: none"> • Course Name: • 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	Error Message: Invalid course name	Error Message: Invalid course name
T25: Add	Preconditions: PackSchedulerGUI has loaded and		Error Message: Invalid course

Invalid Course - no title	<p>registrar user is logged in (T2). T23 has run.</p> <p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC236 • Course Title: • Course Section: 001 • Credits: 3 • Instructor Id: lasher • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid course title	title
T26: Add Invalid Course - no section	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p> <p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: • Credits: 3 • Instructor Id: lasher • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid section number	Error Message: Invalid section number
T27: Add Invalid	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p>		Error Message: Invalid section number

Course - section too short	<p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: 0011 • Credits: 3 • Instructor Id: lasher • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid section number	
T28: Add Invalid Course - section too long	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p> <p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: 01 • Credits: 3 • Instructor Id: lasher • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid section number	Error Message: Invalid section number
T29: Add Invalid	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p>		Error Message: Invalid instructor unity id

Course - no instructor id	<p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: 001 • Credits: 3 • Instructor Id: • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid instructor unity id	
T30: Add Invalid Course - end time after start time	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p> <p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: 001 • Credits: 3 • Instructor Id: lasher • Start Time: 11:30 AM • End Time: 10:15 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid meeting times	Error Message: Invalid meeting times
T31: Add Invalid	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.		Error Message: Invalid meeting days

Course - no meeting days	<p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • 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: <p>Click Add Course</p> <p>Click OK</p>	Error Message: Invalid meeting days	
T32: Add Course - end	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p> <p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • 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 <p>Click Add Course</p> <p>Click OK</p>	CSC236-001 is added to the list at the end following CSC230-001	CSC236-001 is added to the list at the front and is followed by CSC116-001
T33: Add Course -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.		CSC113-001 is added to the list at the front and is followed

front	<p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • 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 <p>Click Add Course</p> <p>Click OK</p>	CSC113-001 is added to the list at the front and is followed by CSC116-001.	by CSC116-001.
T34: Add Course - middle	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.</p> <p>Enter the following in the Course Information section:</p> <ul style="list-style-type: none"> • 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 <p>Click Add Course</p> <p>Click OK</p>	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	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p>		Error Message: No course selected

Course - no selection	Click Remove Course	Error Message: 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. CSC230-001 is the last course in the catalog	CSC236-001 is removed. CSC230-001 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	Contents should be: CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910,	Contents should be: CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910,

	Select test-files directory and name the file t39_course_catalog.txt .	1100 CSC116,Intro to Programming - Java,002,3,spbalik,MW,1120,1 310 CSC116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1 310 CSC116,Java,006,3,jdyoung2, TH,1040,1230 CSC216,Programming Concepts - Java,002,4,jtking,MW,1330,14 45 CSC216,Programming Concepts - Java,601,4,jep,A CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MW F,935,1025 CSC230,C and Software Tools,001,3,dbsturgi,MW,1145 ,1300	1100 CSC116,Intro to Programming - Java,002,3,spbalik,MW,1120,1 310 CSC116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1 310 CSC116,Java,006,3,jdyoung2, TH,1040,1230 CSC216,Programming Concepts - Java,002,4,jtking,MW,1330,14 45 CSC216,Programming Concepts - Java,601,4,jep,A CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MW F,935,1025 CSC230,C and Software Tools,001,3,dbsturgi,MW,1145 ,1300
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:		CSC216-601 is added to the list

	<ul style="list-style-type: none"> • Course Name: CSC216 • Course Title: Programming Concepts - Java • Course Section: 601 • Credits: 4 • Instructor Id: jep • Start Time: • End Time: • Meeting Days: Arranged <p>Click Add Course</p> <p>Click OK</p>	CSC216-601 is added to the list	
T42: Logout	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Click Logout</p>	User is returned to the Login view	User is returned to the Login view
T42: Login Student	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run</p> <p>User ID: pwilkins Password: pw</p> <p>Click: Login</p>	pwilkins is logged in and is switched to the user view. All that is shown is a Logout button.	Pop up with message "User doesn't exist."