

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.properties.id		View switches to Registrar panel with Student Directory functionality display

	Password: registrar.properties.pw Click Login	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: <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 Click Add Student Click OK	Error Message: Invalid first name	Error Message: Invalid first name
T5: Add	Preconditions: PackSchedulerGUI has loaded and		Error Message: Invalid last

Invalid Student - no last name	<p>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: • 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	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 -	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.</p>		Error Message: Invalid email

no email	<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 • 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	<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>		Error Message: Passwords do not match

match	<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> <p>Click OK</p>	Error Message: Passwords do not match	
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>	Error Message: Invalid max credits	Error Message: Invalid max credits
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 		Error Message: Invalid max credits

	<ul style="list-style-type: none"> • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 19 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid max credits	
T12: Add Student - end	<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: 15 <p>Click Add Student</p> <p>Click OK</p>	Patience Wilkins is added to the Student Directory and is the last student in the list.	
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 		Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz

	<ul style="list-style-type: none"> • 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	
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: <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 Click Add Student Click OK	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		Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list

	Click Remove student	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,Cura bitur.egestas.nunc@placerator cilacus.co.uk,0ÉRú±"ÃùuŸ!Û7 X²F'pâ9•{-OîFâapÄ,18 Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÃùuŸ!Û7X²F'pâ9•{-	Contents should be (note that the password hash may be different due to encoding): Demetrius,Austin,daustin,Cura bitur.egestas.nunc@placerator cilacus.co.uk,0ÉRú±"ÃùuŸ!Û7 X²F'pâ9•{-OîFâapÄ,18 Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÃùuŸ!Û7X²F'pâ9•{-

		<p>OîFâapÄ, 14 Raymond,Brennan,rbrennan,lit ora.torquent@pellentesquema ssalobortis.ca,0ÉRú±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 12 Emerald,Frost,efrost,adipiscing @acipsumPhasellus.edu,0ÉRú ±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ ,3 Althea,Hicks,ahicks,Phasellus. dapibus@luctusfelis.com,0ÉR ú±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâap Ä, 11 Zahir,King,zking,orci.Donec@a metmassaQuisque.com,0ÉRú± "ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 15 Dylan,Nolan,dnolan,placerat.C ras.dictum@dictum.net,0ÉRú± "ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 5 Rylee,Puckett,rpuckett,rpuckett @ncsu.edu,0ÉRú±"ÄùuYÿ!Ü\7X ²F´pâ9•{-OîFâapÄ, 15 Cassandra,Schwartz,cschwart z,semper@imperdietornare.co. uk,0ÉRú±"ÄùuYÿ!Ü\7X²F´pâ9•{- OîFâapÄ,4 Griffith,Stone,gstone,porta@m agnamalesuadavel.net,0ÉRú±" ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ,1 7</p>	<p>OîFâapÄ, 14 Raymond,Brennan,rbrennan,lit ora.torquent@pellentesquema ssalobortis.ca,0ÉRú±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 12 Emerald,Frost,efrost,adipiscin g@acipsumPhasellus.edu,0ÉR ú±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâ apÄ,3 Althea,Hicks,ahicks,Phasellus. dapibus@luctusfelis.com,0ÉR ú±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâap Ä, 11 Zahir,King,zking,orci.Donec@ ametmassaQuisque.com,0ÉR ú±"ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâap Ä, 15 Dylan,Nolan,dnolan,placerat.C ras.dictum@dictum.net,0ÉRú± "ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 5 Rylee,Puckett,rpuckett,rpuckett @ncsu.edu,0ÉRú±"ÄùuYÿ!Ü\7 X²F´pâ9•{-OîFâapÄ, 15 Cassandra,Schwartz,cschwart z,semper@imperdietornare.co. uk,0ÉRú±"ÄùuYÿ!Ü\7X²F´pâ9•{- OîFâapÄ,4 Griffith,Stone,gstone,porta@m agnamalesuadavel.net,0ÉRú±" ÄùuYÿ!Ü\7X²F´pâ9•{-OîFâapÄ,1 7</p>
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T20: New Student Directory	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.</p> <p>Click New Student Directory</p>	An empty student directory is shown.	An empty student directory is shown.
T21: Add Student - first	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T20 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: 15 <p>Click Add Student</p> <p>Click OK</p>	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	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Click Course Catalog</p>	Course Catalog functionality displayed	Course Catalog functionality displayed
T23: Load Course Catalog	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2)</p> <p>Click Load Course Catalog</p> <p>Select test-files/course_records.txt</p> <p>Click Select</p>	8 courses are listed starting	8 courses are listed starting with CSC116-001 and ending with CSC230-001

		with CSC116-001 and ending with CSC230-001	
T24: Add Invalid Course - no name	<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: • 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>	<p>Error Message: Invalid course name</p>	Error Message: Invalid course name
T25: Add Invalid Course - no title	<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: • Course Section: 001 • Credits: 3 • Instructor Id: lasher • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday 		Error Message: Invalid course title

	Click Add Course Click OK	Error Message: 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: <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 Click Add Course Click OK	Error Message: Invalid section number	Error Message: 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: <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 		Error Message: Invalid section number

	<ul style="list-style-type: none"> End Time: 11:30 AM Meeting Days: Tuesday & Thursday Click Add Course Click OK	Error Message: 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: <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 Click Add Course Click OK	Error Message: Invalid section number	Error Message: 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: <ul style="list-style-type: none"> Course Name: CSC236 Course Title: Computer Organization and Assembly Language Course Section: 001 Credits: 3 		Error Message: Invalid instructor unity id

	<ul style="list-style-type: none"> • 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 Course - no meeting days	<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 		Error Message: Invalid meeting days

	<ul style="list-style-type: none"> • 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	
T33: Add Course - front	<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: CSC113 		CSC113-001 is added to the list at the front and is followed by CSC116-001.

	<ul style="list-style-type: none"> • 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.	
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.	
T35: Remove Course - no	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Click Remove Course</p>	Error Message: No course	Error Message: No course selected

selection		selected	
T36: Remove Course - middle	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Select CSC216-001</p> <p>Click Remove Course</p>	<p>CSC216-001 is removed. CSC116-006 is followed by CSC216-002.</p>	<p>CSC216-001 is removed. CSC116-006 is followed by CSC216-002.</p>
T37: Remove Course - front	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T33 has run.</p> <p>Select CSC113-001</p> <p>Click Remove Course</p>	<p>CSC113-001 is removed. CSC116-001 is the first course in the catalog</p>	<p>CSC113-001 is removed. CSC116-001 is the first course in the catalog</p>
T38: Remove Course - back	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32 has run.</p> <p>Select CSC236-001</p> <p>Click Remove Course</p>	<p>CSC236-001 is removed. CSC230-001 is the last course in the catalog</p>	<p>CSC236-001 is removed. CSC230-001 is the last course in the catalog</p>
T39: Save Course Catalog	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32-T38 have run.</p> <p>Click Save Course Catalog</p>	<p>Contents should be:</p> <p>CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910,</p>	<p>Contents should be:</p> <p>CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910,</p>

	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.		CSC216-601 is added to the list

	<p>Enter the following in the Course Information section:</p> <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>	<p>CSC216-601 is added to the list</p>	
T42: Logout	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).</p> <p>Click Logout</p>	<p>User is returned to the Login view</p>	<p>User is returned to the Login view</p>
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>	<p>pwilkins is logged in and is switched to the user view. All that is shown is a Logout button.</p>	<p>pwilkins is logged in and is switched to the user view. All that is shown is a Logout button.</p>