

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.

Test ID	Description	Expected Results	Actual Results
T1: Invalid Login	Preconditions: PackSchedulerGUI has loaded User ID: Iberg Password: pw Click Login Click OK Click Clear	 Pop up with message "User doesn't exist." User ID and password text fields are cleared.	The PackSchedulerGUI opens up After entering the credentials UserID: Iberg Password: pw Clicking on login gives a pop message saying "User doesn't exist" is shown

T2: Registrar Login	<p>Preconditions: PackSchedulerGUI has loaded</p> <p>User ID: registrar.properties.id Password: registrar.properties.pw Click Login</p>	View switches to Registrar panel with Student Directory functionality displayed	<p>After T1 is passed Enter user credentials User ID: jdoe Password: passw0rd</p> <p>Clicking on login switches to the registrar panel with Student Directory functionality</p>
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>	10 students are listed in alphabetical order by last name. The list starts with Demetrius Austin and ends with Griffith Stone.	<p>After T2 is passed</p> <p>Clicking on Load Student Directory and selecting student_records.txt from the test-files folder.</p> <p>Loads a list of 10 students in alphabetical order by the 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 		<p>After T2 and T3 are passing</p> <p>Enter the following in the Student Information section: First Name: Last Name: Wilkins ID: pwilkins Email: pwilkins@ncsu.edu</p>

	<ul style="list-style-type: none"> Email: pwilkins@ncsu.edu Password: pw Repeat Password: pw Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid first name	<p>Password: pw Repeat Password: pw Max Credits: 15 Clicking on Add Student</p> <p>Shows an error message saying 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 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	<p>After T2 and T3 are passing</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>Clicking on Add Student</p> <p>Shows an error message saying "Invalid last name"</p>
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: 		<p>After T2 and T3 are passing</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:

	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> pwilkins@ncsu.edu Password: pw Repeat Password: pw Max Credits: 15 <p>Clicking on Add Student</p> <p>Shows an error message saying "Invalid id"</p>
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 Repeat Password: pw Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid email	<p>After T2 and T3 are passing</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 Repeat Password: pw Max Credits: 15 <p>Clicking on Add Student</p> <p>Shows an error message saying "Invalid email"</p>
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 		<p>After T2 and T3 are passing</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

	<ul style="list-style-type: none"> • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	Error Message: Invalid email	<ul style="list-style-type: none"> • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Clicking on Add Student</p> <p>Shows an error message saying “Invalid email”</p>
T9: Add Invalid Student - password s 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> <p>Click OK</p>	Error Message: Passwords do not match	<p>After T2 and T3 are passing</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>Clicking on Add Student</p> <p>Shows an error message saying “Invalid password”</p>
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 		<p>After T2 and T3 are passing</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

	<ul style="list-style-type: none"> • Password: pw • Repeat Password: pw • Max Credits: 0 <p>Click Add Student</p> <p>Click OK</p>	User is added with max credits of 18. User is the last student in the list.	<ul style="list-style-type: none"> • Password: pw • Repeat Password: pw • Max Credits: 0 <p>Clicking on Add Student</p> <p>Student is added with mx credits of 18</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: Patrick • Last Name: Wilkins • ID: pwilkins2 • Email: pwilkins2@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 19 <p>Click Add Student</p> <p>Click OK</p>	User is added with max credits of 18. User is the last student in the list.	<p>After T2 and T3 are passing</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>Clicking on Add Student</p> <p>Student is added with mx credits of 18</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 		<p>After T2 and T3 are passing</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

	<ul style="list-style-type: none"> • Password: pw • Repeat Password: pw • Max Credits: 15 <p>Click Add Student</p> <p>Click OK</p>	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 <p>Clicking on Add Student 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> <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.	<p>After T2 and T3 are passing</p> <p>Enter the following in the Student Information section:</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>Clicking on Add Student Melvin Acevedo is added to the Student Directory and is the first student in the list.</p>
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	<p>After T2 is passing</p> <p>Clicked on Remove student</p> <p>The given error message is "No student selected."</p>

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>	<p>Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list</p>	<p>After T2 is passing Selected Shannon Hansen Clicked on Remove student</p> <p>Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list</p>
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>	<p>Melvin Acevedo is removed. Demetrius Austin is front of the directory</p>	<p>After T2 and T14 are passing Selected Melvin Acevedo Clicked on Remove student</p> <p>Melvin Acevedo is removed. Demetrius Austin is front of the directory</p>
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>Select Patrick Wilkins</p> <p>Click Remove student</p>	<p>Patience Wilkins is removed. Patrick Wilkins remains as the last in the directory</p> <p>Patrick Wilkins is removed. Griffith Stone is the last student in the directory.</p>	<p>After T2 and T12 are passing Selected Patience Wilkins Clicked on Remove student</p> <p>Patience Wilkins is removed. Griffith Stone is last in the directory</p>
T19: Save	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.</p>	<p>Contents should be (note that the password hash may be</p>	<p>Contents in t19_student_directory.txt.</p>

<p>Student Directory</p>	<p>Click Save Student Directory</p> <p>Select test-files directory and name the file t19_student_directory.txt.</p>	<p>different due to encoding):</p> <p>Demetrius,Austin,daustin,Cura bitur.egestas.nunc@placerator cilacus.co.uk,0ÉRú±"Äùuÿ!Ü\7 X²F´pâ9•{-OîFâapÄ,18 Lane,Berg,lberg,sociis@non.org,0ÉRú±"Äùuÿ!Ü\7X²F´pâ9•{-OîFâapÄ,14 Raymond,Brennan,rbrennan,lit ora.torquent@pellentesquema ssalobortis.ca,0ÉRú±"Äùuÿ!Ü\7X²F´pâ9•{-OîFâapÄ,12 Emerald,Frost,efrost,adipiscing @acipsumPhasellus.edu,0ÉRú ±"Äùuÿ!Ü\7X²F´pâ9•{-OîFâapÄ ,3 Althea,Hicks,ahicks,Phasellus. dapibus@luctusfelis.com,0ÉR ú±"Äùuÿ!Ü\7X²F´pâ9•{-OîFâap Ä,11 Zahir,King,zking,orci.Donec@a metmassaQuisque.com,0ÉRú± "Äùuÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 15 Dylan,Nolan,dnolan,placerat.C ras.dictum@dictum.net,0ÉRú± "Äùuÿ!Ü\7X²F´pâ9•{-OîFâapÄ, 5 Rylee,Puckett,rpuckett,rpuckett @ncsu.edu,0ÉRú±"Äùuÿ!Ü\7X ²F´pâ9•{-OîFâapÄ,15 Cassandra,Schwartz,cschwartz</p>	<p><u>Demetrius,Austin,daustin,Cura bitur.egestas.nunc@placerator cilacus.co.uk</u>,MMIS+rEiw/l1nwK m2Vw3WLJGtP7iOZV7LU/uRuJ hcMQ=,18 Lane,<u>Berg,lberg,sociis@non.or g</u>,MMIS+rEiw/l1nwKm2Vw3WLJ GtP7iOZV7LU/uRuJhcMQ=,14 <u>Raymond,Brennan,rbrennan,lit ora.torquent@pellentesquemas salobortis.ca</u>,MMIS+rEiw/l1nwK m2Vw3WLJGtP7iOZV7LU/uRuJ hcMQ=,12 Emerald,Frost,<u>efrost,adipiscing @acipsumPhasellus.edu</u>,MMIS +rEiw/l1nwKm2Vw3WLJGtP7iO ZV7LU/uRuJhcMQ=,3 <u>Althea,Hicks,ahicks,Phasellus. dapibus@luctusfelis.com</u>,MMIS +rEiw/l1nwKm2Vw3WLJGtP7iO ZV7LU/uRuJhcMQ=,11 <u>Zahir,King,zking,orci.Donec@a metmassaQuisque.com</u>,MMIS+r Eiw/l1nwKm2Vw3WLJGtP7iOZ V7LU/uRuJhcMQ=,15 Dylan,<u>Nolan,dnolan,placerat.Cr as.dictum@dictum.net</u>,MMIS+r Eiw/l1nwKm2Vw3WLJGtP7iOZ V7LU/uRuJhcMQ=,5 <u>Rylee,Puckett,rpuckett,rpuckett @ncsu.edu</u>,MMIS+rEiw/l1nwKm 2Vw3WLJGtP7iOZV7LU/uRuJh cMQ=,18 <u>Cassandra,Schwartz,cschwartz ,semper@imperdietornare.co.u k</u>,MMIS+rEiw/l1nwKm2Vw3WLJ</p>
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		z,semper@imperdietornare.co.uk,0ÉRú±"ÃùuŸ!Û\7X²F'pâ9•{-OîFâapÄ,4 Griffith,Stone,gstone,porta@magnamalesuadavel.net,0ÉRú±"ÃùuŸ!Û\7X²F'pâ9•{-OîFâapÄ,17	GtP7iOZV7LU/uRuJhcMQ=,4 <u>Griffith,Stone,gstone,porta@magnamalesuadavel.net</u> ,MMIS+rEiw/l1nwKm2Vw3WLJGtP7iOZV7LU/uRuJhcMQ=,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 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	Course Catalog functionality displayed

		displayed	
T23: Load Course Catalog	<p>Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2)</p> <p>Click Load Course Catalog Select test-files/course_records.txt Click Select</p>	<p>13 courses are listed starting with CSC116-001 and ending with CSC316-001</p>	<p>13 courses are listed starting with CSC 116-001 and ending with CSC 316-001 as provided in the course_records.txt file</p>
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: freeh • Enrollment Cap: 10 • 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>	<p>After T23 is passing Entered 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: freeh • Enrollment Cap: 10 • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message "Invalid course name."</p>

<p>T25: Add Invalid Course - no title</p>	<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: freeh • Enrollment Cap: 10 • 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 title</p>	<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • 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 <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message "Invalid course title."</p>
<p>T26: Add Invalid Course - no section</p>	<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: freeh • Enrollment Cap: 10 		<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • Course Title: Computer Organization and Assembly Language • Course Section: • Credits: 3 • Instructor Id: freeh

	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Enrollment Cap: 10 Start Time: 10:15 AM End Time: 11:30 AM Meeting Days: Tuesday & Thursday <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message "Invalid section number."</p>
T27: Add Invalid Course - section too short	<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: 0011 Credits: 3 Instructor Id: freeh Enrollment Cap: 10 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	<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> Course Name: CSC 236 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 <p>Clicked on Add Course</p> <p>Clicked OK</p>

			This gave an 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: freeh • Enrollment Cap: 10 • 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	<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • 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 <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message “Invalid section number.”</p>
T29: Add Invalid Course - no instructor id	<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 		<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • Course Title: Computer

	<p>Assembly Language</p> <ul style="list-style-type: none"> • Course Section: 001 • Credits: 3 • Instructor Id: • Enrollment Cap: 10 • 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 instructor unity id</p>	<p>Organization and Assembly Language</p> <ul style="list-style-type: none"> • Course Section: 001 • Credits: 3 • Instructor Id: • Enrollment Cap: 10 • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message "Invalid instructor id."</p>
<p>T30: Add Invalid Course - end time after start time</p>	<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: freeh • Enrollment Cap: 10 • Start Time: 11:30 AM • End Time: 10:15 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p>	<p>Error Message: Invalid meeting times</p>	<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • 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:

	Click OK		<p>Tuesday & Thursday Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message “Invalid meeting days and times.”</p>
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 • Course Section: 001 • Credits: 3 • Instructor Id: freeh • Enrollment Cap: 10 • 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	<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • 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: <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>This gave an error message “Invalid meeting days and times.”</p>

<p>T32: Add Course - end</p>	<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: freeh • Enrollment Cap: 10 • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Click Add Course</p> <p>Click OK</p>	<p>CSC236-001 is added to the list at the end following CSC230-001</p>	<p>After T23 is passing Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 236 • Course Title: Computer Organization and Assembly Language • Course Section: 001 • Credits: 3 • Instructor Id: freeh • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday <p>Clicked on Add Course</p> <p>Clicked OK</p> <p>CSC236-001 is added to the list at the end following CSC230-001</p>
<p>T33: Add Course - front</p>	<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 • Course Title: MATLAB • Course Section: 001 • Credits: 3 		<p>Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 113 • Course Title: Introduction to Computer - MATLAB • Course Section: 001 • Credits: 3 • Instructor Id: tbdimitr

	<ul style="list-style-type: none"> • Instructor Id: tbdimitr • Enrollment Cap: 250 • 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.	<ul style="list-style-type: none"> • Enrollment Cap: 250 • Start Time: 3:00 PM • End Time: 3:50 PM • Meeting Days: Monday & Wednesday <p>Clicked on Add Course</p> <p>Click OK</p> <p>CSC 113-001 is added to the list at the front and is followed by CSC 116-001.</p>
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 • Enrollment Cap: 33 • 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.	<p>After T23 is passing</p> <p>Entered the following in the Course Information section:</p> <ul style="list-style-type: none"> • Course Name: CSC 116 • 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 <p>Clicked Add Course</p>

			Clicked OK CSC 116-006 is added to the list between C
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: 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.	CSC 216-001 is removed. CSC 116-006 is followed by CSC 216-002.
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	CSC 113-001 is removed. CSC 116-001 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		CSC 236-001 is removed. CSC 316-001 is the last course in the catalog

	Click Remove Course	CSC236-001 is removed. CSC316-001 is the last course in the catalog	
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>Select test-files directory and name the file t39_course_catalog.txt.</p>	<p>Contents should be:</p> <p>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</p>	<p>The t39_course_catalog.txt in the test-files directory contains the following:</p> <p>CSC 116,Intro to Programming - Java,001,3,jdyoung2,MW,910,1100 CSC 116,Intro to Programming - Java,002,3,spbalik,MW,1120,1310 CSC 116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1310 CSC 116,Intro to Programming - Java,006,3,jdyoung2,TH,1040,1230 CSC 216,Software Development Fundamentals,002,3,ixdoming,MW,1330,1445 CSC 216,Software Development Fundamentals,601,3,jctetter,A CSC 217,Software Development Fundamentals Lab,202,1,sesmith5,M,1040,1230 CSC 217,Software Development Fundamentals Lab,211,1,sesmith5,T,830,1020 CSC 217,Software Development Fundamentals Lab,223,1,sesmith5,W,1500,1650 CSC 217,Software Development</p>

		,A CSC217,Software Development Fundamentals Lab,202,1,sesmith5,10,M,1040 ,1230 CSC217,Software Development Fundamentals Lab,211,1,sesmith5,10,T,830,1 020 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,11 45,1300 CSC316,Data Structures and Algorithms,001,3,jtking,10,MW, 830,945	Fundamentals Lab,601,1,sesmith5,A CSC 226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF, 935,1025 CSC 230,C and Software Tools,001,3,dbsturgi,MW,1145,1 300 CSC 316,Data Structures and Algorithms,001,3,jtking,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.	An empty course catalog is shown after clicking New Course Catalog
T41: Add	Preconditions: PackSchedulerGUI has loaded and		After T20 is passing

Course - first	<p>registrar user is logged in (T2). T20 has run.</p> <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>	CSC216-601 is added to the list	<p>Adding the following course details:</p> <ul style="list-style-type: none"> • Course Name: CSC 216 • Course Title: Programming Concepts - Java • Course Section: 601 • Credits: 4 • Instructor Id: jep • Start Time: • End Time: • Meeting Days: Arranged <p>Clicked Add Course</p> <p>Clicked OK CSC 216-601 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>	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	<p>User is returned to the Login view</p> <p>pwilkins is logged in and is switched to the user view.</p>

		<p>switched to the user view. The user can see the course catalog and register for courses.</p> <p>You'll need to create your own system tests for this functionality!</p>	<p>All that is shown is a Logout button.</p>
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