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: 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.	Pop up with "User doesn't exist." User ID and password text are cleared.
T2: Registrar	Preconditions: PackSchedulerGUI has loaded		View switches to Registrar panel with Student Directory

Login	User ID: registrar.properties.id Password: registrar.properties.pw Click Login	View switches to Registrar panel with Student Directory functionality displayed	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 -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.		Error Message Pop Up: Invalid last name

no last name	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	
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		Error message Pop up: Invalid email

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	 ID: pwilkins Email: Password: pw Repeat Password: pw Max Credits: 15 Click Add Student 	Error Message: Invalid email	
T8: Add Invalid Student - invalid email	PPreconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkinsncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 Click Add Student Click OK	Error Message: Invalid email	Error message Pop up: Invalid email
T9: Add Invalid Student - password s 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		Error message Pop up: Passwords do not match

	Max Credits: 15 Click Add Student Click OK	Error Message: Passwords do not match	
T10: Add Invalid Student - zero max credits	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 0 Click Add Student Click OK	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	User is added with max credits of 18. User is the last student	Patrick Wilkins is not added to the list. Error pup up message: "Invalid max credits"

	Click OK	in the list.	
T13: Add Student - middle	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: • First Name: Rylee • Last Name: Puckett • ID: rpuckett • Email: rpuckett@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 Click Add Student Click OK	Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz	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	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Click Remove Student	Error Message: No student	Error message pop up: No student selected
selection		selected	
T16: Remove Student -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		Student Hansen is removed from the list. Hicks is now below Frost.
middle	Select Shannon Hansen		
	Click Remove student	Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list	
T17: Remove Student -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T14 has run.		Student Acevedo is removed from the list. Austin is now the first Student in the list.
front	Select Melvin Acevedo		
	Click Remove student	Melvin Acevedo is removed. Demetrius Austin is front of the directory	
T18: Remove Student -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12 has run.		Student Patience Wilkins is removed from the list. Stone is now the last student in the
back	Select Patience Wilkins		list.
	Click Remove student	Patience Wilkins is removed. Patrick Wilkins remains as the	T11 was failed, so Patrick Wilkins was never added.
	Select Patrick Wilkins	last in the directory	
	Click Remove student	Patrick Wilkins is removed. Griffith Stone is the last	

		student 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¦Ù\7 X²F′þâ9•{-OîFâapÄ, 18 Lane, Berg, Iberg, sociis@non.org, 0ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{-OîFâapÄ, 14 Raymond, Brennan, rbrennan, lit ora. torquent@pellentesquema ssalobortis. 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, 5 Rylee, Puckett, rpuckett, rpuckett@ncsu.edu, 0ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{-OîFâapÄ, 15	Contents of the saved file: Demetrius, Austin, daustin, Cu rabitur.egestas.nunc@placer atorcilacus.co.uk, 0ÉRú±"Ãù uŸ¦Ù\7X²F′þâ9•{-OîFâapÄ,18 Lane, Berg, Iberg, sociis@non. org, 0ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9 •{-OîFâapÄ,14 Raymond, Brennan, rbrennan, litora.torquent@pellentesqu emassalobortis.ca, 0ÉRú±"Ã ùuŸ¦Ù\7X²F′þâ9•{- OîFâapÄ,12 Emerald, Frost, efrost, adipisci ng@acipsumPhasellus.edu, 0 ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{- OîFâapÄ,3 Althea, Hicks, ahicks, Phasellu s.dapibus@luctusfelis.com, 0 ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{- OîFâapÄ,11 Zahir, King, zking, orci. Donec @ametmassaQuisque.com, 0 ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{- OîFâapÄ,15 Dylan, Nolan, dnolan, placerat. Cras.dictum@dictum.net, 0É Rú±"ÃùuŸ¦Ù\7X²F′þâ9•{- OîFâapÄ,5 Rylee, Puckett, rpuckett, rpuckett@ncsu.edu, 0ÉRú±"ÃùuŸ¦ Ù\7X²F′þâ9•{-OîFâapÄ,15 Cassandra, Schwartz, cschwartz, semper@imperdietornare

		Cassandra, Schwartz, cschwart z, semper@imperdietornare.co. uk, 0 ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{-OîFâapÄ,4Griffith, Stone, gstone, porta@magnamalesuadavel.net, 0 ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{-OîFâapÄ, 17	.co.uk,0ÉRú±"ÃùuŸ¦Ù\7X²F´þ â9•{-OîFâapÄ,4 Griffith,Stone,gstone,porta@ magnamalesuadavel.net,0ÉR ú±"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:	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		Error pop up message: Invalid title

	 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 	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:	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		Error pop up message: Invalid section

	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	
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:	Error Message: Invalid section number	Error pop up message: Invalid section
T29: Add Invalid Course - no instructor	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section:		Error pop up message: Invalid instructor id

id	 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 	Error Message: Invalid instructor unity 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:	Error Message: Invalid meeting times	Error message pop up: End time cannot be before start time
T31: Add Invalid Course -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run.		Error message pop up: Invalid meeting days.

no meeting days	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	
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:	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	Preconditions: PackSchedulerGUI has loaded and		Course CSC113 is added to

Course - front	registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section:	CSC113-001 is added to the list at the front and is followed by CSC116-001.	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:	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	000040 004 is reserved	CSC216-001 is removed, CSC116-006 is followed by CSC216-002.
	Click Remove Course	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		CSC113 is removed. CSC116-001 is now the top of the list.
	Click Remove Course	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		CSC 236-001 is removed. CSC316-001 is now the bottom of the list.
	Click Remove Course	CSC236-001 is removed. CSC316-001 is the last course in the catalog	
T39: Save Course	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32-T38 have run.	Contents should be: CSC116,Intro to Programming	Saved file contents: CSC116,Intro to Programming -

,001,3,jdyoung2,10,MW,	-	Click Save Course Catalog	Catalog
100	Java,001,3,jdyoung2,10,MW,9	•	J
116,Intro to	10,1100	Select test-files directory and name the file	
ramming -	CSC116,Intro to Programming	t39_course_catalog.txt.	
,002,3,spbalik,10,MW,11	-	•	
10	Java,002,3,spbalik,10,MW,112		
116,Intro to	0,1310		
ramming -	CSC116,Intro to Programming		
,003,3,tbdimitr,10,TH,11	-		
310	Java,003,3,tbdimitr,10,TH,112		
116,Introduction to	0,1310		
ramming -	CSC116,Introduction to		
,006,3,jdyoung2,33,TH,1	Programming -		
230	Java,006,3,jdyoung2,33,TH,10		
216,Software	40,1230		
lopment	CSC216,Software		
amentals,002,3,ixdomin	Development		
MW,1330,1445	Fundamentals,001,3,sesmith5,		
216,Software	10,TH,1330,1445		
lopment	CSC216,Software		
amentals,601,3,jctetter,	Development		
	Fundamentals,002,3,ixdoming,		
217,Software	10,MW,1330,1445		
Iopment Fundamentals	CSC216,Software		
202,1,sesmith5,10,M,104	Development		
80	Fundamentals, 601, 3, jctetter, 10		
217,Software	,A		
Iopment Fundamentals	CSC217,Software		
211,1,sesmith5,10,T,830,	Development Fundamentals		
	Lab,202,1,sesmith5,10,M,1040		
217,Software	,1230		
lopment Fundamentals	CSC217,Software		
223,1,sesmith5,10,W,150	Development Fundamentals		
60	Lab,211,1,sesmith5,10,T,830,1		
217,Software	020		
lopment Fundamentals	CSC217,Software		
223,′ 60 217,5	Development Fundamentals Lab,211,1,sesmith5,10,T,830,1 020		

		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,1 145,1300 CSC316,Data Structures and Algorithms,001,3,jtking,10,MW, 830,945	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,M W,830,945
T40: New Course Catalog	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.		The course catalog list is emptied.
	Click New Course Catalog	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: • Course Name: CSC216 • Course Title: Programming Concepts - Java • Course Section: 601 • Credits: 4 • Instructor Id: jep • Start Time: • End Time:		CSC216-601 is added to the list. It is the only Course in the list.

	Meeting Days: Arranged Click Add Course Click OK	CSC216-601 is added to the list	
T42: Logout	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		User is returned to the login panel.
	Click Logout	User is returned to the Login view	
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	Preconditions: T44 has passed	Error message: This course	Error message pop-up: This

Conflictin g Course to Schedule	Select Course: CSC226 – 001 Click: Add Course	cannot be added due to a conflict.	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	Preconditions: T2 and T21 have passed	Error Pop up: Course cannot be added to the schedule	Pop up error: Course cannot be added to the

credits	Click Logout	schedule.
	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	