Lab 00: 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 Expected Results Actual Results Description T1: Invalid Preconditions: PackSchedulerGUI has loaded Login User ID: Iberg Password: pw Pop up with message "User Click Login Pop up with message "User doesn't exist." doesn't exist." Click **OK** User ID and password text User ID and password text Click Clear fields are cleared. fields are cleared.

T2: Regis- trar Login	Preconditions: PackSchedulerGUI has loaded User ID: registrar Password: Regi5tr@r Click Login	View switches to Registrar panel with Student Directory functionality displayed	View switches to Registrar panel with Student Directory functionality displayed
T3: Load Student Directory	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2) Click Load Student Directory Select test-files/student_records.txt Click Select	10 students are listed in alphabetical order by last name. The list starts with Demetrius Austin and ends with Griffith Stone.	10 students are listed in alphabetical order by last name. The list starts with Demetrius Austin and ends with Griffith Stone.
T4: Add Invalid Student - no first name	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: First Name: Last Name: Wilkins ID: pwilkins Email: pwilkins@ncsu.edu Password: pw Repeat Password: pw Max Credits: 15 Click Add Student Click OK	Error Message: Invalid first name	Error Message: Invalid first name

T5: Add Invalid Student - no last name	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: First Name: Patience Last Name: ID: pwilkins Email: pwilkins@ncsu.edu Password: pw Repeat Password: pw Max Credits: 15 Click Add Student Click OK	Error Message: Invalid last name	Error Message: 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: Invalid id

T7: Add Invalid Student - no email	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: First Name: Patience Last Name: Wilkins ID: pwilkins Email: Password: pw Repeat Password: pw Max Credits: 15 Click Add Student	Error Message: Invalid email	Error Message: Invalid email
	Click OK		
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 • ID: pwilkins • Email: pwilkinsncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 15 Click Add Student Click OK	Error Message: Invalid email	Error Message: Invalid email

T9: Add Invalid Student - pass- words don't match	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw1 • Repeat Password: pw • Max Credits: 15 Click Add Student Click OK	Error Message: Passwords do not match	Error Message: 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	Error Message: Invalid max credits	Error Message: Invalid max credits

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: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 19 Click Add Student Click OK	Error Message: Invalid max credits	Error Message: Invalid max credits
T12: Add Student - end	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: 15 Click Add Student Click OK	Patience Wilkins is added to the Student Directory and is the last student in the list.	Patience Wilkins is added to the Student Directory and is the last student 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	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: • 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.	Melvin Acevedo is added to the Student Directory and is the first student in the list.

T15: Re- move Stu- dent - no	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		Error Message: No student selected
selection	Click Remove Student	Error Message: No student selected	
T16: Re- move Stu- dent - 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: Re- move Stu- dent - front	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T14 has run. Select Melvin Acevedo		Melvin Acevedo is removed. Demetrius Austin is front of the directory
	Click Remove student	Melvin Acevedo is removed. Demetrius Austin is front of the directory	
T18: Re- move Stu- dent -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12 has run.		Patience Wilkins is removed. Griffith Stone is last in the directory
back	Select Patience Wilkins		,
	Click Remove student	Patience Wilkins is removed. Griffith Stone is last in the directory	

T19: Save Student	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.	Contents should be (note that the password hash may be dif-	Contents are:
Directory	registral user is logged in (12). 112-116 have full.	ferent due to encoding):	Demetrius, Austin, daustin, Cura-
	Click Save Student Directory		bitur.egestas.nunc@placera-
	•	Demetrius, Austin, daustin, Cura-	torcila-
	Select test-files directory and name the file t19_student_directory.txt .	bitur.egestas.nunc@placera- torcila-	cus.co.uk,0ÉRú±"ÃùuŸ¦Ù\7X2F 'pâ9•{-OîFâapÄ,18
	<u></u>	cus.co.uk,0ÉRú±"ÃùuŸ¦Ù\7X²F	Lane,Berg,Iberg,so-
		′þâ9•{-OîFâapÄ,18	ciis@non.org,0ÉRú±"ÃùuŸ¦Ù\7
		Lane, Berg, Iberg, so-	X ² F´þâ9•{-OîFâapÄ,14
		ciis@non.org,0ÉRú±"ÃùuŸ¦Ù\7	Raymond, Brennan, rbren-
		X²F´þâ9•{-OîFâapÄ,14	nan,litora.torquent@pel-
		Raymond, Brennan, rbren-	lentesquemassalobor-
		nan,litora.torquent@pel-	tis.ca,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9
		lentesquemassalobor-	•{-OîFâapÄ,12
		tis.ca,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9	Emerald,Frost,efrost,adipis-
		•{-OîFâapÄ,12	cing@acipsumPhasel-
		Emerald, Frost, efrost, adipis-	lus.edu,0ÉRú±"ÃùuŸ¦Ù\7X²F´þ
		cing@acipsumPhasel-	â9•{-OîFâapÄ,3
		lus.edu,0ÉRú±"ÃùuŸ¦Ù\7X²F´þ â9•{-OîFâapÄ,3	Althea, Hicks, ahicks, Phasellus.dapibus@luc-
		Althea,Hicks,ahicks,Phasel-	tusfelis.com,0ÉRú±"ÃùuŸ¦Ù\7X
		lus.dapibus@luc-	²F′þâ9•{-OîFâapÄ,11
		tusfelis.com,0ÉRú±"ÃùuŸ¦Ù\7X	Za-
		² F'þâ9•{-OîFâapÄ,11	hir,King,zking,orci.Donec@am
		Za-	etmassaQu-
		hir,King,zking,orci.Donec@ame	isque.com,0ÉRú±"ÃùuŸ¦Ù\7X²
		tmassaQu-	F´bâ9•{-OîFâapÄ,15
		isque.com,0ÉRú±"ÃùuŸ¦Ù\7X2	Dylan, Nolan, dnolan, plac-
		F´þâ9•{-OîFâapÄ,15	erat.Cras.dictum@dic-
		Dylan, Nolan, dnolan, plac-	tum.net,0ÉRú±"ÃùuŸ¦Ù\7X2F´þ
		erat.Cras.dictum@dic-	â9•{-OîFâapÄ,5
		tum.net,0ÉRú±"ÃùuŸ¦Ù\7X²F´þ	Rylee, Puckett, rpuckett, rpuck-
1		â9•{-OîFâapÄ,5	ett@ncsu.edu,0ÉRú±"ÃùuŸ¦Ù\
		Rylee, Puckett, rpuckett, rpuck-	7X²F´þâ9•{-OîFâapÄ,15
		ett@ncsu.edu,0ÉRú±"ÃùuŸ¦Ù\	

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	An empty student directory is shown.
	Click New Student Directory	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: • 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 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:	Error Message: Invalid name	Error Message: 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:	Error Message: Invalid title	Error Message: Invalid title

T26: Add Invalid Course - no section	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section:	Error Message: Invalid section	Error 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:	Error Message: Invalid section	Error Message: Invalid section

	Click OK		
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	Error Message: Invalid section

T29: Add Invalid Course - no in- structor id	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 instructor id	Error Message: Invalid instructor id
T30: Add Invalid Course - end time after start time	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section: Course Name: CSC236 Course Title: Computer Organization and Assembly Language Course Section: 001 Credits: 3 Instructor Id: lasher Enrollment Cap: 10 Start Time: 11:30 AM End Time: 10:15 AM Meeting Days: Tuesday & Thursday Click Add Course	Error Message: Invalid meeting times	Error Message: Invalid meeting times

	Click OK		
T31: Add Invalid Course - no meet- ing days	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 days	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: Course Name: CSC236 Course Title: Computer Organization and Assembly Language Course Section: 001 Credits: 3 Instructor Id: lasher Enrollment Cap: 10 Start Time: 10:15 AM End Time: 11:30 AM Meeting Days: Tuesday & Thursday Click Add Course Click OK	CSC236-001 is added to the list at the end following CSC230-001	CSC236-001 is added to the list at the end following CSC230-001
T33: Add Course - front	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section: Course Name: CSC113 Course Title: Introduction to Computer - MATLAB Course Section: 001 Credits: 3 Instructor Id: tbdimitr Enrollment Cap: 10 Start Time: 3:00 PM End Time: 3:50 PM Meeting Days: Monday & Wednesday Click Add Course	CSC113-001 is added to the list at the front and is followed by CSC116-001.	CSC113-001 is added to the list at the front and is followed by CSC116-001.

	Click OK		
T34: Add Course - middle	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section: Course Name: CSC116 Course Title: Introduction to Programming - Java Course Section: 006 Credits: 3 Instructor Id: jdyoung2 Enrollment Cap: 10 Start Time: 10:40 AM End Time: 12:30 PM Meeting Days: Tuesday & Thursday Click Add Course Click OK	CSC116-006 is added to the list between CSC116-003 and CSC216-001.	CSC116-006 is added to the list between CSC116-003 and CSC216-001.

T35: Re- move Course -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		Error Message: No course selected
no selec- tion	Click Remove Course	Error Message: No course selected	
T36: Re- move Course -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		CSC216-001 is removed. CSC116-006 is followed by CSC216-002.
middle	Select CSC216-001		
	Click Remove Course	CSC216-001 is removed. CSC116-006 is followed by CSC216-002.	
T37: Re- move Course -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T33 has run.		CSC113-001 is removed. CSC116-001 is the first course in the catalog
front	Select CSC113-001		in the canalog
	Click Remove Course	CSC113-001 is removed. CSC116-001 is the first course in the catalog	
T38: Re- move Course -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32 has run.		CSC236-001 is removed. CSC230-001 is the last course in the catalog
back	Select CSC236-001		3
	Click Remove Course	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 Select test-files directory and name the file t39_course_catalog.txt.	Contents should be: CSC116,Intro to Programming - Java,001,3,jdyoung2,10,MW,91 0,1100 CSC116,Intro to Programming - Java,002,3,spba- lik,10,MW,1120,1310 CSC116,Intro to Programming - Java,003,3,tbdi- mitr,10,TH,1120,1310 CSC116,Java,006,3,jdyoung2, 10,TH,1040,1230 CSC216,Programming Concepts - Java,002,4,jtking,10,MW,1330, 1445 CSC216,Programming Concepts - Java,601,4,jep,10,A CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,10,MWF,9 35,1025 CSC230,C and Software Tools,001,3,dbsturgi,10,MW,11	Contents are: CSC116,Intro to Programming - Java,001,3,jdyoung2,10,MW,9 10,1100 CSC116,Intro to Programming - Java,002,3,spba- lik,10,MW,1120,1310 CSC116,Intro to Programming - Java,003,3,tbdi- mitr,10,TH,1120,1310 CSC116,Java,006,3,jdyoung2, 10,TH,1040,1230 CSC216,Programming Concepts - Java,002,4,jtking,10,MW,1330, 1445 CSC216,Programming Concepts - Java,601,4,jep,10,A CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,10,MWF,9 35,1025 CSC230,C and Software
			·
T40: New Course Catalog	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run.		An empty course catalog is shown.
Jakaiog	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 Enrollment Cap: 10 Start Time: End Time: Meeting Days: Arranged Click Add Course	CSC216-601 is added to the list	CSC216-601 is added to the list
T42: Log- out	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		User is returned to the Login view
	Click Logout	User is returned to the Login view	
T43: Login Stu- dent	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run User ID: pwilkins Password: pw		pwilkins is logged in and is switched to the user view. All that is shown is a Logout button.
	Click: Login	pwilkins is logged in and is switched to the user view. All that is shown is a Logout button.	

T44: Login Student with Course Catalog	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 has run. Click Load Course Catalog Select test-files/t43_course_catalog.txt Click Select	The course catalog now has 9 classes, starting with ART215 and ending with MUS120.	The course catalog now has 9 classes, starting with ART215 and ending with MUS120.
	Click Logout . User ID: pwilkins Password: pw	pwilkins is logged in and is switched to the user view. The course catalog is shown with 9 classes.	pwilkins is logged in and is switched to the user view. The course catalog is shown with 9 classes.
	Click: Login		
T45			
T45: Add	Preconditions: PackSchedulerGUI has loaded and T44 has run.		
course to schedule	Select CSC116 001	CSC116 001's course information is seen in the course details	CSC116 001's course information is seen in the course details
	Click Add Course	CSC116 is added to the schedule	CSC116 is added to the schedule
T46: Add dupli- cate	Preconditions: PackSchedulerGUI has loaded and T45 has run.	Error Message: Course cannot be added to schedule.	Error Message: Course cannot be added to schedule.
course to schedule	Select CSC116 002 Click Add Course		
	Click OK		

T47: Add con- flicting course to schedule	Preconditions: PackSchedulerGUI has loaded and T46 has run. Select BIO101 001 Click Add Course Click OK	Error Message: Course cannot be added to schedule.	Error Message: Course cannot be added to schedule.
T48: Re- move course from schedule	Preconditions: PackSchedulerGUI has loaded and T47 has run. Select CSC116 001 in Student's Schedule Click Remove Course	Schedule is now empty	Schedule is now empty
T49: Add multiple courses and set ti- tle	Preconditions: PackSchedulerGUI has loaded and T44 has run. Select ART215 001 Click Add Course Select CSC114 006 Click Add Course Select BIO101 001 Click Add Course Select CSC116 002 Click Add Course Select MUS120 Click Add Course In the text field next to Schedule Title, type "Fall 2017" Click Set Title	Schedule now has 5 classes, starting with ART215 and ending with MUS120 The schedule's title is now: Fall 2017 Each class in the schedule shows 9 open seats.	Schedule now has 5 classes, starting with ART215 and ending with MUS120 The schedule's title is now: Fall 2017 Each class in the schedule shows 9 open seats.

T50: At- tempt to overload student's schedule	Preconditions: PackSchedulerGUI has loaded and T49 has run. Select ECN101 Click Add Course	Error Message: Course cannot be added to schedule.	Error Message: Course cannot be added to schedule.
	Click OK		
T50: reset schedule	Preconditions: PackSchedulerGUI has loaded and T49 has run.	The schedule is empty and the title is now "My Schedule"	The schedule is empty and the title is now "My Schedule"
	Click Reset Schedule		