Lab 11: 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		Pop up with message "User doesn't exist."
	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.	User ID and password text fields are cleared.
T2: Registrar Login	Preconditions: PackSchedulerGUI has loaded User ID: registrar Password: Regi5tr@r Click Login	View switches to Registrar 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.t xt 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:	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.		Error Message: Invalid last name

	Enter the following in the Student Information section: • First Name: Patience • Last Name: ID: pwilkins • Email: pwilkins@ncsu.ed u • Password: pw • Repeat Password: pw • Max Credits: 15	Error Message: Invalid last name	
	Click Add Student Click OK		
T6: Add Invalid Student - no id	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.		Error Message: Invalid id
	Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: • Email: pwilkins@ncsu.ed u • Password: pw • Repeat Password: pw • Max Credits: 15	Error Message: Invalid id	

	Click Add Student		
	Click OK		
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 Click OK	Error Message: Invalid email	Error Message: Invalid email
T8: Add Invalid Student - invalid email	PPreconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.		Error Message: Invalid email
	Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: pwilkins	Error Message: Invalid email	

	 Email: pwilkinsncsu.edu Password: pw Repeat Password: pw Max Credits: 15 Click Add Student 		
T9: Add Invalid Student - passwords 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.ed u • 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.		Error Message: Invalid max credits

	Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.ed u • Password: pw • Repeat Password: pw • Max Credits: 0 Click Add Student Click OK	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.		Error Message: Invalid max credits
	Enter the following in the Student Information section: • First Name: Patience • Last Name: Wilkins • ID: pwilkins • Email: pwilkins@ncsu.ed u • Password: pw • Repeat Password: pw • Max Credits: 19	Error Message: Invalid max credits	

	Click Add Student		
	Click OK		
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.ed u • 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		Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz

	 ID: rpuckett Email: rpuckett@ncsu.ed u Password: pw Repeat Password: pw Max Credits: 15 Click Add Student 	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:	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: Remove Student - no selection	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).	Error Message: No student selected	Error Message: No student selected

	Click Remove Student		
T16: Remove Student - middle	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Select Shannon Hansen Click Remove student	Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list	Shannon Hansen is removed. Athea Hicks follows Emerald Frost in the list
T17: Remove Student - front	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	Contents should be (note that the password hash may be different due to encoding): Demetrius,Austin,daustin,Cura bitur.egestas.nunc@placerato rcilacus.co.uk,0ÉRú±"ÃùuŸ¦Ù\ 7X²F′þâ9•{-OîFâapÄ,18	Contents should be (note that the password hash may be different due to encoding): Demetrius, Austin , daustin, Curabitu r.egestas.nunc@

Select test-files directory and name the file t19_student_directory.txt.

Lane,Berg,Iberg,sociis@non.org,0ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{-OîFâapÄ,14

Raymond,Brennan,rbrennan,li tora.torquent@pellentesquem assalobortis.ca,0ÉRú±"ÃùuŸ¦ Ù\7X²F′þâ9•{-OîFâapÄ,12 Emerald,Frost,efrost,adipiscin g@acipsumPhasellus.edu,0ÉRú±"ÃùuŸ¦Ù\7X²F′þâ9•{-OîFâapÄ,3

Althea,Hicks,ahicks,Phasellus.dapibus@luctusfelis.com,0ÉR ú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâa pÄ,11

Zahir,King,zking,orci.Donec@ ametmassaQuisque.com,0ÉR ú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâa pÄ,15

Dylan,Nolan,dnolan,placerat.C ras.dictum@dictum.net,0ÉRú± "ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ, 5

Rylee,Puckett,rpuckett,rpuckett@ncsu.edu,0ÉRú±"ÃùuŸ¦Ù\7 X²F´þâ9•{-OîFâapÄ,15

Cassandra,Schwartz,cschwart z,semper@imperdietornare.co .uk,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{ -OîFâapÄ,4

Griffith,Stone,gstone,porta@m agnamalesuadavel.net,0ÉRú± "ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ, 17 placeratorcilacus .co.uk.0ÉRú±"Ãù uŸ¦Ù\7X2F′bâ9•{-OîFâapÄ,18 Lane, Berg, Iberg, sociis@non.org, 0ÉRú±"ÃùuŸ¦Ù\7 X²F′þâ9•{-OîFâa pÄ,14 Raymond, Brenn an,rbrennan,litor a.torquent@pelle ntesquemassalo bortis.ca,0ÉRú±" ÃùuŸ¦Ù\7X²F′þâ 9•{-OîFâapÄ,12 Emerald, Frost, ef rost,adipiscing@ acipsumPhasellu s.edu,0ÉRú±"Ãù uŸ¦Ù\7X²F′þâ9•{-OîFâapÄ,3 Althea, Hicks, ahic ks, Phasellus.dap ibus@luctusfelis. com,0ÉRú±"Ãùu Ÿ¦Ù\7X2F′þâ9•{-OîFâapÄ,11 Zahir, King, zking, orci.Donec@am etmassaQuisque .com,0ÉRú±"Ãùu Ÿ¦Ù\7X2F7bâ9•{-OîFâapÄ,15 Dylan, Nolan, dnol an,placerat.Cras. dictum@dictum. net,0ÉRú±"ÃùuŸ

¦Ù\7X2F′bâ9•{-Oî

FâapÄ,5

			Rylee,Puckett,rp uckett,rpuckett@ ncsu.edu,0ÉRú± "ÃùuŸ¦Ù\7X²F′þâ 9•{-OîFâapÄ,15 Cassandra,Schw artz,cschwartz,s emper@imperdie tornare.co.uk,0É Rú±"ÃùuŸ¦Ù\7X² F′þâ9•{-OîFâapÄ,4 Griffith,Stone,gst one,porta@mag namalesuadavel.net,0ÉRú±"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.	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: • First Name: Patience • Last Name: Wilkins		

	 ID: pwilkins Email: pwilkins@ncsu.ed u 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.t xt 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: • Course Name:		

	Course Title: Computer Organization and Assembly Language Course Section: 001 Credits: 3 Instructor Id: lasher Enrollment Cap: 30 Start Time: 10:15 AM End Time: 11:30 AM Meeting Days: Tuesday & Thursday Click Add Course Click OK	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

	 Enrollment Cap: 30 Start Time: 10:15 AM End Time: 11:30 AM Meeting Days: Tuesday & Thursday Click Add Course Click OK 		
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 title

	Meeting Days: Tuesday & Thursday Click Add Course Click OK		
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

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 instructor id	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: Enrollment Cap: 30 Start Time: 10:15 AM End Time: 11:30 AM Meeting Days: Tuesday & Thursday Click Add Course	Error Message: Invalid instructor id	Error Message: Invalid instructor id
	Click OK		
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:		

	Organization and Assembly Language Course Section: 001 Credits: 3 Instructor Id: lasher Enrollment Cap: 30 Start Time: 11:30 AM End Time: 10:15 AM Meeting Days: Tuesday & Thursday Click Add Course Click OK	Error Message: Invalid meeting times	Error Message: Invalid meeting times
T31: Add Invalid Course - no meeting 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

	 Instructor Id: lasher Enrollment Cap: 30 Start Time: 10:15 AM End Time: 11:30 AM Meeting Days: Click Add Course Click OK 		
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	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: CSC113 Course Name: CSC113 Course Title: Introduction to Computer - MATLAB Course Section: 001 Credits: 3 Instructor Id: tbdimitr Enrollment Cap: 30 Start Time: 3:00 PM End Time: 3:50 PM Meeting Days: Monday & Wednesday Click Add Course Click OK Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. CSC113-001 is added to the list at the front and is followed by CSC116-001. CSC113-001 is added to the list at the front and is followed by CSC116-001.		Meeting Days: Tuesday & Thursday Click Add Course Click OK		
	Course -	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: 30 • Start Time: 3:00 PM • End Time: 3:50 PM • Meeting Days: Monday & Wednesday Click Add Course	list at the front and is followed	added to the list at the front and is followed by

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 the list between CSC116-003 and 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: No course selected

T36: Remove Course - middle	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Select CSC216-001 Click Remove Course	CSC216-001 is removed. CSC116-006 is followed by CSC216-002.	CSC216-001 is removed. CSC116-006 is followed by CSC216-002.
T37: Remove Course - front	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T33 has run. Select CSC113-001 Click Remove Course	CSC113-001 is removed. CSC116-001 is the first course in the catalog	CSC113-001 is removed. CSC116-001 is the first course in the catalog
T38: Remove Course - back	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32 has run. Select CSC236-001 Click Remove Course	CSC236-001 is removed. CSC230-001 is the last course in the catalog	CSC236-001 is removed. CSC230-001 is the last course in the catalog
T39: Save Course Catalog	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T32-T38 have run. Click Save Course Catalog	Contents should be: CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910, 1100 CSC116,Intro to Programming - Java,002,3,spbalik,MW,1120, 1310	Contents are: CSC116,Intro to Programming - Java,001,3,jdyou ng2,MW,910,110 0 CSC116,Intro to Programming - Java,002,3,spbal

	Select test-files directory and name the file t39_course_catalog.txt.	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,114 5,1300	ik,MW,1120,131 0 CSC116,Intro to Programming - Java,003,3,tbdim itr,TH,1120,1310 CSC116,Java,00 6,3,jdyoung2,TH, 1040,1230 CSC216,Progra mming Concepts - Java,002,4,jtking ,MW,1330,1445 CSC216,Progra mming Concepts - Java,601,4,jep,A CSC226,Discret e Mathematics for Computer Scientists,001,3,t mbarnes,MWF,9 35,1025 CSC230,C and Software Tools,001,3,dbst urgi,MW,1145,13 00
T40: New Course Catalog	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run. Click New Course Catalog	An empty course catalog is shown.	An empty course catalog is shown.
T41: Add Course - first	Preconditions: PackSchedulerGUI has loaded and registrar user		

	is logged in (T2). T20 has run. Enter the following in the Course Information section: • Course Name:	CSC216-601 is added to the list	CSC216-601 is added to the list
T42: Logout	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Click Logout	User is returned to the Login view	User is returned to the Login view
T44: Test Faculty	Preconditions: T2 has run Click on the Faculty Directory Tab. Check Results	Faculty Directory Functionality is displayed.	Faculty Directory Functionality is displayed.

T45: Test Load Invalid Faculty	Preconditions: T2, T43 Click Load Faculty Directory. Select invalid_faculty_records.txt Check Results	Faculty Directory is empty	Faculty Directory is empty
T46: Test Add Faculty	Preconditions: T2, T43 Click Load Faculty Directory. Select faculty_records.txt Check Results	There should be 8 faculty in the Faculty Directory Contents should be: Ashely,Witt,awitt, Fiona,Meadows,fmeadow Brent,Brewer,bbrewer, Halla,Aguirre,haguirr, Kevyn,Patel,kpatel, Elton,Briggs,ebriggs, Norman,Brady,nbrady, Lacey,Walls,lwalls,	There are 8 faculty in the Faculty Directory Contents are: Ashely,Witt,awitt, Fiona,Meadows,f meadow Brent,Brewer,bbr ewer, Halla,Aguirre,ha guirr, Kevyn,Patel,kpat el, Elton,Briggs,ebri ggs, Norman,Brady,n brady, Lacey,Walls,lwall s,
T47: Test Invalid Faculty Name	Preconditions: T2 Enter the following into Faculty Information section:	An error message appears with the text "Invalid first name".	An error message appears with the text "Invalid first name".

	 First Name: Last Name: Teacherson ID: tteacherson Email: tteacherson@ncsu .edu Password: pw Repeat Password: pw Max Credits: 3 Click Add Faculty Check Results Click OK		
T48: Test Invalid Faculty Name 2	Preconditions: T2 Enter the following into Faculty Information section: • First Name: Teachy • Last Name: • ID: tteacherson • Email: tteacherson@ncsu .edu • Password: pw • Repeat Password: pw • Max Credits: 3 Click Add Faculty Check Results Click OK	An error message appears with the text "Invalid last name".	An error message appears with the text "Invalid last name".

T49: Test Invalid Faculty ID	Preconditions: T2 Enter the following into Faculty Information section: • First Name: Teachy • Last Name: Teacherson • ID: • Email: tteacherson@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 3 Click Add Faculty Check Results	An error message appears with the text "Invalid id".	An error message appears with the text "Invalid id".
T50: Test Invalid Faculty Email	Click OK Preconditions: T2 Enter the following into Faculty Information section: • First Name: Teachy • Last Name: Teacherson • ID: tteacherson • Email: tteacherson@ncsu.edu • Password: pw	An error message appears with the text "Invalid email".	An error message appears with the text "Invalid email".

	 Repeat Password: pw Max Credits: 3 Click Add Faculty Check Results Click OK 		
T51: Test Add Faculty	Preconditions: T2, T43, T44 Enter the following into Faculty Information section: • First Name: Teachy • Last Name: Teacherson • ID: tteacherson • Email: tteacherson@ncsu.edu • Password: pw • Repeat Password: pw • Max Credits: 3 Click Add Faculty Check Results	Teachy Teacherson is added to end of Faculty Directory	Teachy Teacherson is ended to end of Faculty Directory
T52: Invalid Remove	Preconditions: T2, T50 Click Remove Faculty	An error message appears with the text "No faculty selected".	An error message appears with the text "No faculty selected".

T53: Remove Faculty	Preconditions: T2, T50 Select Norman Brady Click Remove Faculty	Norman Brady is removed from the Faculty Directory	Norman Brady is removed from the Faculty Directory
T54: Invalid Add Course to Faculty	Preconditions: T51 T23 Click on Faculty Assignment Tab. Click Teachy Teacherson Click Assign Faculty to Course Check Results Click OK	Dialogue box pops up with the text No Course Selected in the Catalog	Dialogue box pops up with the text No Course Selected in the Catalog
T55: Valid Add Course to Faculty 2	Preconditions: T51 T23 Click on Faculty Assignment Tab. Click Teachy Teacherson Click the First course in the catalogue Click Assign Faculty to Course Check Results	Teachy Teacherson is now the instructor for the first course	Teachy Teacherson is now the instructor for the first course