Lab 05: 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.

The project should have a registrar properties file that contain values for the following properties:

first=Michael last=Lee id=registrar email=registrar@ncsu.edu pw=Regi5tr@r

The values should be substituted in the tests below as appropriate for the local copy of the registrar.properties file.

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.

Note: Tests 24-34, 39 modified for enrollment cap field.

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Test ID	Description	Expected Results	Actual Results
T1: Invalid	Preconditions: PackSchedulerGUI has loaded		

Login	User ID: Iberg Password: pw Click Login Click OK	Pop up with message "User doesn't exist."	Pop up with message "User doesn't exist."
	Click Clear	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.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	Error Message: Invalid id	Error Message: Invalid id
	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	Error Message: Invalid email	Error Message: Invalid email
T8: Add Invalid Student - invalid email	Click OK 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: 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 • 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	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information		

credits	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: Remove Student - no selection	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Click Remove Student	Error Message: No student selected	Error Message: No student selected
T16: Remove Student - middle	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). Select Shannon Hansen		

	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 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.or g, 0ÉRú±"ÃùuŸ¦Ù\7 X²F′þâ9•{-OîFâapÄ, 14 Raymond, Brennan, rbrennan, lit ora. torquent@pellentesquema	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, 0 R U U U U U U U U U U U U U U U U U

Student Directory	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.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 course name	Error Message: Invalid course 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 course title	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 Message: Invalid section number
T27: Add Invalid Course - section too short	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section: • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: 0011 • 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	Error Message: Invalid section number	Error Message: Invalid section number

	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: • Course Name: CSC236 • Course Title: Computer Organization and Assembly Language • Course Section: 01 • Credits: 3 • Enrollment Cap: 10 • Instructor Id: lasher • Start Time: 10:15 AM • End Time: 11:30 AM • Meeting Days: Tuesday & Thursday Click Add Course Click OK	Error Message: Invalid section number	Error Message: Invalid section number
T29: Add Invalid Course - no instructor id	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information section: 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	Error Message: Invalid	Error Message: Invalid

	Click Add Course	instructor unity id	instructor unity 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:	Error Message: Invalid course times	Error Message: Invalid course 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: • 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: Click Add Course Click OK 	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:	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.
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 -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2).		

middle	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 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,9 10,1100 CSC116,Intro to Programming - Java,002,3,spbalik,10,MW,112 0,1310 CSC116,Intro to Programming -	Contents should be: CSC116,Intro to Programming - Java,001,3,jdyoung2,10,MW,9 10,1100 CSC116,Intro to Programming - Java,002,3,spbalik,10,MW,112 0,1310 CSC116,Intro to Programming -

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		Java,003,3,tbdimitr,10,TH,112 0,1310 CSC116,Introduction to Programming - Java,006,3,jdyoung2,10,TH,10 40,1230 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,935,1025 CSC230,C and Software Tools,001,3,dbsturgi,10,MW,1 145,1300	Java,003,3,tbdimitr,10,TH,112 0,1310 CSC116,Introduction to Programming - Java,006,3,jdyoung2,10,TH,10 40,1230 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,935,1025 CSC230,C and Software Tools,001,3,dbsturgi,10,MW,1 145,1300
T40: New Course Catalog	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T12-T18 have run. Click New Course Catalog	An empty course catalog is shown.	An empty course catalog is shown.
T41: Add Course - first	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T20 has run. 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: Meeting Days: Arranged Click Add Course 	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
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. All that is shown is a Logout button.	pwilkins is logged in and is switched to the user view. All that is shown is a Logout button.
T44: Add Course as	Preconditions: PackSchedulerGUI has loaded and student user is logged in (T43).		
Student	Select CSC216		
	Click Add Course	CSC216 is shown in the schedule. Course details are shown at the bottom of the panel.	CSC216 is shown in the schedule. Course details are shown at the bottom of the panel.

T45: Remove Course as Student –	Preconditions: PackSchedulerGUI has loaded and student user is logged in (T43). T44 has run. Select CSC216 Click Remove Course	CSC216 is removed and the	CSC216 is removed and the
		schedule is empty.	schedule is empty.
T46: Set Title	Preconditions: PackSchedulerGUI has loaded and student user is logged in (T43). T44 has run.		
	Enter "New Schedule" in title field		
	Click Set Title	Title field shows "New Schedule"	Title field shows "New Schedule"
T46: Add Course as Student after New	Preconditions: PackSchedulerGUI has loaded and student user is logged in (T43). T46 has run. Select CSC216		
Title	Click Add Course	Schedule shows CSC216. Title shows "New Schedule"	Schedule shows CSC216. Title shows "New Schedule"
T47: Reset Schedule	Preconditions: PackSchedulerGUI has loaded and student user is logged in (T43). T44 has run.		
as Student	Select CSC216		
	Click Reset Schedule	Schedule is empty. Title shows "My Schedule"	Schedule is empty. Title shows "My Schedule