Lab 07: 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 User ID: **lberg** Password: **pw** Click **Login** Click **OK** Click **Clear**	Pop up with message "User doesn't exist." User ID and password text fields are cleared.	**Popup message with "User doesn't exist" shows up**
T2: Registrar Login	Preconditions: PackSchedulerGUI has loaded User ID: **registrar**		**REgistrar panel with student directory is displayed**

	Password: **Regi5tr@r** Click **Login**	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.	**The students are loaded**
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	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.		**Error Message: Invalid last name**

Student - 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: Invalid id**
T7: Add Invalid Student -	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run.		**Error Message: Invalid email**

no email	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	
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: Invalid email**
T9: Add Invalid Student - passwords don't	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T3 has run. Enter the following in the Student Information section:		**Error Message: Passwords do not match**

match	- 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	
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**	Patience Wilkins is added to the Student Directory and is the last student in the list. Max credits is set to 18.	**Patience Wilkins is added to the Student Directory and is the last student in the list. 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:		**Patience Wilkins is added to the Student Directory and is the last student in the list.**

	● 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**	Patience Wilkins is added to the Student Directory and is the last student in the list. Max credits is set to 18.	**Max credits is set to 18.**
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:		**Rylee Puckett is added to the Student Directory between Dylan Nolan and Cassandra Schwartz**

	● 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	
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	Contents should be (note that the password hash may be different due to encoding): Demetrius,Austin,daustin,Curabitur.egestas.nunc@placerator	**Contents are as intended**

| | **t19_student_directory.txt**. | cilacus.co.uk,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,18 Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÃùuŸ¦Ù\7X²F´þâ9•{-OîFâapÄ,14 Raymond,Brennan,rbrennan,litora.torquent@pellentesquemassalobortis.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,15 Cassandra,Schwartz,cschwartz,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	
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.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	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2)		**13 courses are listed starting with CSC116-001**

Course Catalog	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	**and ending with CSC316-001**
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** ● Start Time: **10:15 AM** ● End Time: **11:30 AM** ● Meeting Days: **Tuesday & Thursday** Click **Add Course** Click **OK**	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: ● Course Name: **CSC236** ● Course Title: ● Course Section: **001** ● Credits: **3**		**Error Message: Invalid course title**

	● 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 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: ● Course Name: **CSC236** ● Course Title: **Computer Organization and Assembly Language** ● Course Section: ● Credits: **3** ● 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**
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**		**Error Message: Invalid section number**

	● Course Section: **0011** ● Credits: **3** ● 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	
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** ● 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**		**Error Message: Invalid instructor unity id**

	● Course Title: **Computer Organization and Assembly Language** ● Course Section: **001** ● Credits: **3** ● Instructor Id: ● Start Time: **10:15 AM** ● End Time: **11:30 AM** ● Meeting Days: **Tuesday & Thursday** Click **Add Course** Click **OK**	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: ● Course Name: **CSC236** ● Course Title: **Computer Organization and Assembly Language** ● Course Section: **001** ● Credits: **3** ● Instructor Id: **lasher** ● 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	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T23 has run. Enter the following in the Course Information		**Error Message: Invalid meeting days**

meeting days	section: ● Course Name: **CSC236** ● Course Title: **Computer Organization and Assembly Language** ● Course Section: **001** ● Credits: **3** ● Instructor Id: **lasher** ● 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: ● Course Name: **CSC236** ● Course Title: **Computer Organization and Assembly Language** ● Course Section: **001** ● Credits: **3** ● Instructor Id: **lasher** ● 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 between CSC230-001 and CSC316-001	**CSC236-001 is added to the list between CSC230-001 and CSC316-001**
T33: Add Course -	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**

front	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** ● Start Time: **3:00 PM** ● End Time: **3:50 PM** ● Meeting Days: **Monday & Wednesday** Click **Add Course** Click **OK**	CSC113-001 is added to the list at the front and is followed by CSC116-001.	**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: ● Course Name: **CSC116** ● Course Title: **Introduction to Programming - Java** ● Course Section: **006** ● Credits: **3** ● Instructor Id: **jdyoung2** ● 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: 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. CSC316-001 is the last course in the catalog	**CSC236-001 is removed. CSC316-001 is the last course in the catalog**
T39:	Preconditions: PackSchedulerGUI has loaded and	Contents should be:	**Contents are as intended**

| Save Course Catalog | 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**. | CSC116,Intro to Programming - Java,001,3,jdyoung2,MW,910,1100
CSC116,Intro to Programming - Java,002,3,spbalik,MW,1120,1310
CSC116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1310
CSC116,Introduction to Programming - Java,006,3,jdyoung2,TH,1040,1230
CSC216,Software Development Fundamentals,002,3,ixdoming,MW,1330,1445
CSC216,Software Development Fundamentals,601,3,jctetter,A
CSC217,Software Development Fundamentals Lab,202,1,sesmith5,M,1040,1230
CSC217,Software Development Fundamentals Lab,211,1,sesmith5,T,830,1020
CSC217,Software | |

	Development Fundamentals Lab,223,1,sesmith5,W,1500,1650 CSC217,Software Development Fundamentals Lab,601,1,sesmith5,A CSC226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025 CSC230,C and Software Tools,001,3,dbsturgi,MW,1145,1300 CSC316,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.**
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**		**CSC216-601 is added to the list**

	● Instructor Id: **jctetter** ● Start Time: ● End Time: ● 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). Click **Logout**	User is returned to the Login view	**User is returned to the Login view**
T42: Login Student	Preconditions: PackSchedulerGUI has loaded and registrar user is logged in (T2). T21 and T42 have run. User ID: **pwilkins** Password: **pw** Click: **Login**	pwilkins is logged in and is switched to the user view. They see the catalog and an empty schedule	**pwilkins is logged in and is switched to the user view. They see the catalog and an empty schedule**