# Guided Project 3: System Test Plan

## GP3 System Test Plan Instructions

There are 15 system-level system tests that were provided to validate that Guided Project 2 was working properly. You will ***revise*** the existing tests to meet the new requirements. Additionally, you will write another **5 system tests** for a total of **20 tests.**

**Identify *changed tests* by highlighting the row in light gray. Also, annotate the Test ID column with the tag (Modified).**

**Identify *new tests* by highlighting the row in a darker gray. Also, annotate the Test ID column with the tag (New).**

All tests are worth 1 point for a total of 20 points. For each test, half a point is for passing the test and half a point is for reporting the actual results of running the test on YOUR program - even if the test is failing! There are global deductions for incorrect highlighting.

## GP3 System Test Plan Execution Information

To run the tests:

1. Right click on WolfSchedulerGUI class in the Package Explorer.
2. Select Run As > Java Application

The FileChooser for the course catalog will load automatically.

All tests files are located in the test-files/ folder and the contents of the files used in testing are below:

*invalid\_course\_records.txt*

001,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

CSC216,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

CSC a216,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

CSCSC 16,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

16,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

CSC 16,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

CSC 2167,Software Development Fundamentals,001,3,sesmith5,MW,1330,1445

CSC 216,001,3,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,3,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,abc,3,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,001,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,001,0,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,001,6,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,001,3,MW,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,MW,1445

CSC 216,Software Development Fundamentals,01,3,sesmith5,MW,1330,1445

CSC 216,Software Development Fundamentals,001,3,,MW,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,MWA,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,A,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,MW,267,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,MW,1445,1330

CSC 216,Software Development Fundamentals,001,3,sesmith5,,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,MTWHT,1330,1445

CSC 216,Software Development Fundamentals,001,3,sesmith5,MTWH,1330,1445,extra

*course\_records.txt*

CSC 116,Intro to Programming - Java,001,3,jdyoung2,MW,0910,1100

CSC 116,Intro to Programming - Java,002,3,spbalik,MW,1120,1310

CSC 116,Intro to Programming - Java,003,3,tbdimitr,TH,1120,1310

CSC 116,Intro to Programming - Java,002,3,jtking,TH,0910,1100

CSC 216,Software Development Fundamentals,001,3,sesmith5,TH,1330,1445

CSC 216,Software Development Fundamentals,002,3,ixdoming,MW,1330,1445

CSC 216,Software Development Fundamentals,601,3,jctetter,A

CSC 217,Software Development Fundamentals Lab,202,1,sesmith5,M,1040,1230

CSC 217,Software Development Fundamentals Lab,211,1,sesmith5,T,830,1020

CSC 217,Software Development Fundamentals Lab,223,1,sesmith5,W,1500,1650

CSC 217,Software Development Fundamentals Lab,601,1,sesmith5,A

CSC 226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025

CSC 230,C and Software Tools,001,3,dbsturgi,MW,1145,1300

CSC 316,Data Structures and Algorithms,001,3,jtking,MW,830,945

Note that while all tests end with the statement to Close GUI, you can run Tests 2-13 on the same GUI run if there are no failures. If there are failures, you can use the preconditions to identify the dependent test cases.

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| --- | --- | --- | --- |
| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1: Invalid File  (Modified) | Preconditions: None   1. Run WolfSchedulerGUI. 2. In the **Load Course Catalog** FileChooser dialog select: test-files/invalid\_course\_records.txt 3. Click **Select** 4. *Check results* 5. Close GUI   1. Run WolfSchedulerGUI.   1. In the **Load Course Catalog** FileChooser dialog select: test-files/invalid\_records.txt 2. Click **Select** 3. *Check results* 4. Close GUI | * WolfSchdulerGUI loads * Course Catalog is empty * My Schedule is empty * Course Details only shows labels * *Add Event section is empty*   A pop-up dialog stating “Cannot find file.” is displayed. | Test case passes all expected results. Course Catalog and My Schedule are empty. Labels without contents are presented under Course Details. Add Event section is empty.  Test case does not pass. Pop-up dialog is not present and user is directed back to Eclipse Console. |
| Test 2: Valid File | Preconditions: None   1. Run WolfSchedulerGUI. 2. In the **Load Course Catalog** FileChooser dialog select: test-files/course\_records.txt 3. Click **Select** 4. *Check results* 5. Close GUI | WolfSchdulerGUI loads  Course Catalog contains 13 classes   * CSC 116, 001, Intro to Programming - Java, MW 9:10AM-11:00AM * CSC 116, 002, Intro to Programming - Java, MW 11:20AM-1:10PM * CSC 116, 003, Intro to Programming - Java,TH 11:20AM-1:10PM * CSC 216, 001, Software Development Fundamentals, TH 1:30PM-2:45PM * CSC 216, 002, Software Development Fundamentals, MW 1:30PM-2:45PM * CSC 216, 601, Software Development Fundamentals, Arranged * CSC 217, 202, Software Development Fundamentals Lab, M 10:40AM-12:30PM * CSC 217, 211, Software Development Fundamentals Lab, T 8:30AM-10:20AM * CSC 217, 223, Software Development Fundamentals Lab, W 3:00PM-4:50PM * CSC 217, 601, Software Development Fundamentals Lab, Arranged * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * CSC 230, 001, C and Software Tools, MW 11:45PM-1:00PM * CSC 316, 001, Data Structures and Algorithms, MW 8:30AM-9:45AM   My Schedule is empty  Course Details only shows labels  *Add Event only shows labels* | Test case passes all expected results. Course Catalog contains all 13 classes. My Schedule is empty and contains no contains. Labels are only present in Course Details and Add Event. |
| Test 3: Add - No Sel. | Preconditions: Test 2 has passed   1. Make sure that no row in the Course Catalog table is selected (if there is a row selected, restart the GUI) 2. Click **Add Course** 3. *Check results* 4. Click **OK** 5. Close GUI | A pop-up dialog stating “No course selected in the catalog.” is displayed. | Test case passes expected results. Pop-up dialog is present with required text displayed. |
| Test 16: Add –  Schedule Conflict  (New) | Preconditions: Test 2 has passed   1. Select the 1st row of the Course Catalog table (CSC 116, 001, Intro to Programming – Java, MW 9:10AM-11:00AM) 2. Click **Add Course** 3. Select the 7th row of the Course Catalog table (CSC 217, 202, Software Development Fundamental Lab, M 10:40AM-12:30PM) 4. Click **Add Course**   *4. Check results*  *5.* Close GUI | Course Catalog contains 1 class   * CSC 116, 001, Intro to Programming - Java, MW 9:10AM-11:00AM   A pop-up dialog stating “The course cannot be added due to a conflict.” is displayed. | Test case does not pass expected results. Pop-up dialog is not present.   Both courses are added to schedule regardless of schedule conflict. |
| Test 4: Add | Preconditions: Test 2 has passed   1. Select the 4th row of the Course Catalog table (CSC216, 001, Software Development Fundamentals) 2. *Check results* 3. Click **Add Course** 4. *Check results* 5. Close GUI | Course Details are displayed   * Name: CSC 216 * Section: 001 * Title: Software Development Fundamentals * Instructor: sesmith5 * Credits: 3 * Meeting: TH 1:30PM-2:45PM   Course CSC 216, 001, Software Development Fundamentals is listed in the My Schedule table | Test case passed expected results. Course details are present in Course Details with accurate content and Course CSC216 Section 001 is present under My Schedule |
| Test 5: Remove - No Sel. | Preconditions: Test 2 and Test 4 have passed   1. Make sure that no row in the My Schedule table is selected (if there is a row selected, restart the test) 2. Click **Remove Activity** 3. *Check results* 4. Click **OK** 5. Close GUI | A pop-up dialog stating “No item selected in the schedule.” is displayed. | Test case passes all expected results. Pop-up dialog is present with required text displayed. |
| Test 6: Add Same Course | Preconditions: Test 2 and Test 4 have passed   1. Select the 5th row of the Course Catalog table (CSC216, 002, Software Development Fundamentals) 2. *Check results* 3. Click **Add Course** 4. *Check results* 5. Click **OK** 6. Close GUI | Course Details are displayed   * Name: CSC 216 * Section: 002 * Title: Software Development Fundamentals * Instructor: ixdoming * Credits: 3 * Meeting: MW 1:30PM-2:45PM   A pop-up dialog stating “You are already enrolled in CSC216” is displayed. | Test case passes all expected results. Correct contents are listed under My Schedule. Pop-up dialog is present with required text displayed when Add Course is clicked. |
| Test 16: Add Event – Invalid Time  (New) | Preconditions: Test 2 has passed   1. Enter the following in the Add Event section leaving Event Start Time and End Time empty:  * Event Title: Lunch * Meeting Days: Mon and Wed * Event Start Time: * Event End Time: * Details: Meet at the Oval before class  1. Click **Add Event** 2. *Check results*   4. Close GUI | A pop-up dialog stating “Invalid meeting days and time” is displayed. | Test does not pass expected result. Start time and End time do not have option to leave empty.  Event is added to schedule with default time. |
| Test 18: Add Event – Conflicting Course and Event Times  (New) | Preconditions: Test 2 and Test 4 have passed   1. Enter the following in the Add Event section:  * Event Title: Lunch * Meeting Days: Mon and Wed * Event Start Time: 1:00PM * Event End Time: 12:00PM * Details: Meet at the Oval before class  1. Click **Add Event** 2. *Check results* 3. Click **OK**   5. Close GUI | A pop-up dialog stating “The event cannot be added due to a conflict.” is displayed. | Test does not pass expected result.  Event is added to schedule without conflicting schedule prompt. |
| Test 14: Add Event | Preconditions: Test 2 and Test 4 have passed   1. Enter the following in the Add Event section:  * Event Title: Lunch * Meeting Days: Mon and Wed * Event Start Time: 11:30AM * Event End Time: 12:30PM * Details: Meet at the Oval before class  1. Click **Add Event** 2. *Check results* 3. Close GUI | My Schedule table contains:   * CSC 216, 001, Software Development Fundamentals, TH 1:30PM-2:45PM * “”, “”, Lunch, MW 11:30AM-12:30PM | Test passes all expected results. Course and event are listed correctly under My Schedule with accurate content. |
| Test 17: Add Event – Conflicting Start/End Time  (New) | Preconditions: Test 2 and Test 14 has passed   1. Enter the following in the Add Event section:  * Event Title: Exercise * Meeting Days: Sun, Mon, Tue, Thu, Fri * Event Start Time: 11:00AM * Event End Time: 12:00AM * Details: Cardio days  1. Click **Add Event** 2. *Check results* 3. Click **OK**   5. Close GUI | A pop-up dialog stating “The event cannot be added due to a conflict.” is displayed. | Test does not pass expected result.  Event is added to schedule without conflicting schedule prompt. |
| Test 15: Duplicate Event | Preconditions: Test 2, Test 4, and Test14 have passed   1. Enter the following in the Add Event section:  * Event Title: Lunch * Meeting Days: Tue * Event Start Time: 12:00PM * Event End Time: 1:00PM * Details: Lunch with mom  1. Click **Add Event** 2. *Check results* 3. Click **OK** 4. Close GUI | A pop-up dialog stating “You have already created an event called Lunch.” is displayed. | Test case passes all expected results. Pop-up dialog is present with required text displayed. |
| Test 7: Reset | Preconditions: Test 2 and Test 4 have passed   1. Click **Reset Schedule** 2. *Check results* 3. Close GUI | My Schedule table is empty | Test case passes all expected results. Contents under My Schedule are cleared and empty. |
| Test 8: Add Several | Preconditions: Test 2 has passed   1. Select the 6th row of the Course Catalog table (CSC 216, 601, Software Development Fundamentals, Arranged) 2. Click **Add Course** 3. Select the 10th row of the Course Catalog table (CSC 217, 601, Software Development Fundamental Lab, Arranged) 4. Click **Add Course** 5. Select the 2nd row of the Course Catalog table (CSC 116, 002, Intro to Programming - Java, MW 11:20AM-1:10PM) 6. Click **Add Course** 7. Select the 12th row of the Course Catalog table (CSC 230, 001, C and Software Tools, MW 11:45AM-1:00PM) 8. Click **Add Course** 9. Enter the following in the Add Event section:  * Event Title: Exercise * Meeting Days: Sun, Mon, Tue, Thu, Fri * Event Start Time: 8:00AM * Event End Time: 9:00AM * Details: Cardio days  1. Click **Add Event** 2. Select the 11th row of the Course Catalog table (CSC 226, 001, Discrete Mathematics for Computer Scientists) 3. Click **Add Course** 4. Enter the following in the Add Event section:  * Event Title: Lunch * Meeting Days: Mon, Tue, Wed, Thu, Fri * Event Start Time: 11:45AM * Event End Time: 1:00PM * Details:  1. Click **Add Event** 2. *Check results* 3. Close GUI | My Schedule displays:   * CSC 216, 601, Software Development Fundamentals, Arranged * CSC 217, 601, Software Development Fundamentals Lab, Arranged * CSC 116, 002, Intro to Programming - Java, MW 11:20AM-1:10PM * CSC 230, 001, C and Software Tools, MW 11:45AM-1:00PM * “”, “”, Exercise, UMTHF 8:00AM-9:00AM * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * “”, “”, Lunch, MTWHF, 11:45AM-1:00PM | Test passes all expected results. All courses and events are listed correctly under My Schedule with accurate content. |
| Test 9: Remove | Preconditions: Test 2 and Test 8 have passed  Select the 3rd row of the My Schedule table (CSC116, 002, Intro to Programming - Java)  Click **Remove Activity**  *Check results*  Select the 6th row of the My Schedule table (Lunch)  Click **Remove Activity**  *Check results*  Close GUI | My Schedule displays:   * CSC 216, 601, Software Development Fundamentals, Arranged * CSC 217, 601, Software Development Fundamentals Lab, Arranged * CSC 230, 001, C and Software Tools, MW 11:45AM-1:00PM * “”, “”, Exercise, UMTHF 8:00AM-9:00AM * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * “”, “”, Lunch, MTWHF, 11:45AM-1:00PM   My Schedule displays:   * CSC 216, 601, Software Development Fundamentals, Arranged * CSC 217, 601, Software Development Fundamentals Lab, Arranged * CSC 230, 001, C and Software Tools, MW 11:45AM-1:00PM * “”, “”, Exercise, UMTHF 8:00AM-9:00AM * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM | Test case passes all expected results. Course CSC 116 Section 002 and “Lunch” event was removed for My Schedule and contents are displayed accurately. |
| Test 10: Set Title  (Modified) | Preconditions: Test 1 or Test 2 have passed   1. Enter “My Super Awesome Schedule” into the Schedule Title text field 2. Click **Set Title** 3. *Check results* 4. Close GUI   Remove any text in Schedule Title text field   1. Click **Set Title** 2. *Check results* 3. Close GUI | The label on the third section of the GUI now contains the text “My Super Awesome Schedule” instead of “My Schedule”  A pop-up dialog stating “Invalid Title.” is displayed. | Test case passes all expected results. Schedule Title is updated with the following text “My Super Awesome Schedule.”  Test case does not pass. Pop-up dialog is not present. Schedule Title text field remains empty. |
| Test 11: Finalize | Preconditions: Test 2 and Tests 8-10 have passed  Click **Display Final Schedule**  *Check results*  Close GUI | Schedule Title: “My Super Awesome Schedule”  Schedule Table   * CSC 216, 601, Software Development Fundamentals, 3, jctetter, Arranged, “” * CSC 217, 601, Software Development Fundamentals Lab, 1, sesmith5, Arranged, “” * CSC 230, 001, C and Software Tools, 3, dbsturgi, MW 11:45AM-1:00PM, “” * “”, “”, Exercise, “”, “”, UMTHF 8:30AM-9:00AM, Cardio days * CSC 226, 001, Discrete Mathematics for Computer Scientists, 3, tmbarnes, MWF 9:35AM-10:25AM, “” | Test case passes all expected results. GUI displays “My Super Awesome Schedule” with accurate course content listed below. |
| Test 12: Export – Invalid File Saving  (New | Preconditions: Test 2 and Tests 8-11 have passed   1. Click **Export Schedule** 2. Select test-files folder. 3. Click **Save** 4. *Check results* 5. Close GUI | A pop-up dialog stating “The file cannot be saved.” is displayed. | Test case does not pass expected results. No pop-up dialog is displayed. |
| Test 12: Export | Preconditions: Test 2 and Tests 8-11 have passed  Click **Export Schedule**  Select test-files folder. Enter the filename actual\_schedule.txt  Click **Save** (it’s ok to overwrite old results)  *Check results*  Close GUI | In Eclipse, right click on the WolfScheduler project and select **Refresh.**  Open the test-files folder and open actual\_schedule.txt in the editor.  The contents should be:  CSC 216,Software Development Fundamentals,601,3,jctetter,A  CSC 217,Software Development Fundamentals Lab,601,1,sesmith5,A  CSC 230,C and Software Tools,001,3,dbsturgi,MW,1145,1300  Exercise,UMTHF,800,900,Cardio days  CSC 226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025 | Test case fails to meet expected results.   File name “actual\_schedule.txt” is not present in GUI post Export.   Filename is listed as “actual\_schedule\_export.txt” with updated schedule information post export.  File is not listed under test-files folder in editor within Eclipse. |
| Test 13: Revise | Preconditions: Test 2 and Tests 8-11 have passed  Click **Revise Schedule**  *Check Results*  Close GUI | The Scheduler view is shown with   * 13 courses listed in the catalog * My Super Awesome Schedule as the schedule title * 4 courses in my schedule (CSC 216-601, CSC 217-601, CSC 230-001, CSC 226-001) and 1 event (Exercise) - all 4 columns are filled as expected for each activity. | Test case passes all expected results.   Schedule view is present with accurate list of courses. Course catalog contains all 13 courses. Schedule name is “My Super Awesome Schedule” with 4 courses and 1 activity listed under with correct content. |