# 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 black box 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 if 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

*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 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 | 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 | WolfSchdulerGUI loads  Course Catalog is empty  My Schedule is empty  Course Details only shows labels  Add Event section is empty | WolfSchedulerGUI opened with course catalog, schedule, course details, and add event section empty, as expected |
| 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 * CSC 116, 002, Intro to Programming - Java * CSC 116, 003, Intro to Programming - Java * CSC 216, 001, Software Development Fundamentals * CSC 216, 002, Software Development Fundamentals * CSC 216, 601, Software Development Fundamentals * CSC 217, 202, Software Development Fundamentals Lab * CSC 217, 211, Software Development Fundamentals Lab * CSC 217, 223, Software Development Fundamentals Lab * CSC 217, 601, Software Development Fundamentals Lab * CSC 226, 001, Discrete Mathematics for Computer Scientists * CSC 230, 001, C and Software Tools * CSC 316, 001, Data Structures and Algorithms   My Schedule is empty  Course Details only shows labels  Add Event only shows labels | WolfSchedulerGUI opened with the 13 expected courses in course catalog long with empty schedule, course details, and add event section, as expected |
| 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. | Pop up dialog stating no course selected was displayed, as expected |
| 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 | The expected course details are displayed and the schedule now lists CSC 216, 001, Software Development Fundamentals, TH 1:30PM-2:45PM, as expected |
| 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. | A pop up stating that no items had been selected in the schedule was displayed, as expected |
| 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. | The expected course details are displayed and a pop up stating that I was already enrolled in CSC 216 was displayed, as expected |
| Test 14: Add Event | Preconditions: Test 2 and Test 4 have passed   1. Enter the following in the Add Event section:  * Event Title: Lunch * Event Weekly Repeat: 2 * 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 | The event is in the schedule with title “Lunch” and meeting information of “MW 11:30AM-12:30PM (every 2 weeks)” | The event was in the schedule with title “Lunch” and meeting info of “MW 11:30AM-12:30PM (every 2 weeks)”, as expected |
| 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 * Event Weekly Repeat: 1 * Meeting Days: Tue * Event Start Time: 12:00PM * Event End Time: 1:30PM * 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. | A pop up stating that I had already created an event called Lunch was displayed, as expected |
| 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 | The My Schedule table contained no activities, as expected |
| Test 8: Add Several | Preconditions: Test 2 has passed   1. (CSC 216, 601, Software Development Fundamentals) 2. Click **Add Course** 3. Select the 10th row of the Course Catalog table (CSC 217, 601, Software Development Fundamental Lab) 4. Click **Add Course** 5. Select the 12th row of the Course Catalog table (CSC 230, 001, C and Software Tools) 6. Click **Add Course** 7. Enter the following in the Add Event section:  * Event Title: Exercise * Event Weekly Repeat: 1 * Meeting Days: 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 * Event Weekly Repeat: 1 * Meeting Days: Mon, Tue, Wed, Thu, Fri * Event Start Time: 10:35AM * Event End Time: 11:35AM * 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 230, 001, C and Software Tools, MW 11:45AM-1:00PM * Exercise, MTHF 8:00AM-9:00AM (every 1 weeks) * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * Lunch, MTWHF, 10:35AM-11:35PM (every 1 weeks) | The my schedule section now displays all 6 activities, as expected |
| Test 9: Remove | Preconditions: Test 2 and Test 8 have passed  Select the 3rd row of the My Schedule table (CSC230, 001, C and Software Tools)  Click **Remove Activity**  *Check results*  Select the 3rd row of the My Schedule table (Exercise)  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 * Exercise, MTHF 8:00AM-9:00AM (every 1 weeks) * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * Lunch, MTWHF, 11:45AM-1:00PM (every 1 weeks)   My Schedule displays:   * CSC 216, 601, Software Development Fundamentals, Arranged * CSC 217, 601, Software Development Fundamentals Lab, Arranged * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * Lunch, MTWHF, 11:45AM-1:00PM (every 1 weeks) | Both activities were able to be removed from the my schedule section, as expected |
| Test 10: Set Title | Preconditions: Test 1 or Test 2 have passed  Enter “My Super Awesome Schedule” into the Schedule Title text field  Click **Set Title**  *Check results*  Close GUI | The label on the third section of the GUI now contains the text “My Super Awesome Schedule” instead of “My Schedule” | The title now reads “My Super Awesome Schedule”, as expected |
| 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 226, 001, Discrete Mathematics for Computer Scientists, 3, tmbarnes, MWF 9:35AM-10:25AM, “” * “”, “”, Lunch, “”, “”, MTWHF, 11:45AM-1:00PM (every 1 weeks) | The final schedule was displayed with title “My Super Awesome Schedule” and the 4 expected activities |
| 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 226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025  Lunch,MTWHF,1145,1300,1, | actual\_schedule.txt contained the 4 expected lines of output |
| 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 * 3 courses in my schedule (CSC 216-601, CSC 217-601, CSC 226-001) and 1 event (Lunch) | The GUI went back to the scheduler view with the 4 expected activities in the My Schedule section |
| Test 16:  Course Time Conflict | Preconditions: Test 2 and Test 8 have passed  Click (CSC 116, 002, Intro to Programming)  Click **Add Course**  *Check Results*  Close GUI | A pop-up dialog stating “This course cannot be added due to conflict.” is displayed. | A pop up was displayed saying the course could not be added due to conflict, as expected |
| Test 17:  Event Time Conflict | Preconditions: Test 2 and Test 8 have passed  Enter the following in the Add Event section:   * Event Title: Study * Event Weekly Repeat: 1 * Meeting Days: Mon, Tue, Thu, Fri * Event Start Time: 11:00AM * Event End Time: 12:00PM * Details: Study Time!   Click **Add Event**  *Check Results*  Close GUI | A pop-up dialog stating “This event cannot be added due to conflict.” is displayed. | A pop up was displayed saying the event could not be added due to conflict, as expected |
| Test 18:  Invalid Event Name | Preconditions: Test 2 and Test 8 have passed  Enter the following in the Add Event section:   * Event Title: * Event Weekly Repeat: 1 * Meeting Days: Mon, Tue, Thu, Fri * Event Start Time: 1:00PM * Event End Time: 2:00PM * Details:   Click **Add Event**  *Check Results*  Close GUI | A pop-up dialog stating “The event is invalid” is displayed. | A pop up stating that the event was invalid was displayed, as expected |
| Test 19:  Invalid Event Times | Preconditions: Test 2 and Test 8 have passed  Enter the following in the Add Event section:   * Event Title: Study * Event Weekly Repeat: 1 * Meeting Days: Mon, Tue, Thu, Fri * Event Start Time: 2:00PM * Event End Time: 1:00PM * Details: Study Time!   Click **Add Event**  *Check Results*  Close GUI | A pop-up dialog stating “The event is invalid” is displayed. | A pop up stating that the event was invalid was displayed, as expected |
| Test 20: Event Missing Days | Preconditions: Test 2 and Test 8 have passed  Enter the following in the Add Event section:   * Event Title: Study * Event Weekly Repeat: 1 * Meeting Days: **None** * Event Start Time: 1:00PM * Event End Time: 2:00PM * Details: Study Time!   Click **Add Event**  *Check Results*  Close GUI | A pop-up dialog stating “The event must occur on at least one day” is displayed. | A pop up was displayed stating that the event needed to occur on at least one day, as expected |

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