# 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 | 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* | **WolfScheduler pops up with absolutely no courses and nothing under My Schedule, but it is still possible to add events.** |
| 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* | **WolfSchedulerGUI loads with all 13 classes. My schedule, course details, and add event still remain empty for now.** |
| 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. | **A popup appears with an OK button, with the same message as provided in the expected section. Returns back to the unchanged GUI.** |
| 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 | **Clicking on the course selects it in blue, and adding course simply adds it to my schedule without any popup. Course details now displays the info regarding the course.** |
| 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 dialog with an OK button displays with the same message as provided in the expected section. Pressing OK returns to the GUI with the same one course in my schedule, and course details unchanged.** |
| 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 course details of this different CSC 216 course displays, but a pop-up appears letting me know that I’m already enrolled in the course. After pressing OK, I’m returned to the same GUI interface with the same course in my schedule, and the course details of the course I attempted to add to schedule.** |
| 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 | **Event is added to the schedule without any further pop-up, right under the initial CSC 216 course. Event has no section or name.** |
| 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. | **Pop-up dialog box appears stating that I’ve already created an event called lunch. Event is not added, but the information I entered in the Add event section still persists.** |
| 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 | **My schedule section becomes empty. Other sections remain intact to how they were before.** |
| 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. 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: Dinner * Meeting Days: Mon, Tue, Wed, Thu, Fri * Event Start Time: 7:45PM * Event End Time: 9:00PM * 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 * “”, “”, Exercise, UMTHF 8:00AM-9:00AM * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM * “”, “”, Dinner, MTWHF, 7:45AM-9:00PM | **Schedule displays all courses and events in the same order which they were added.** |
| 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 5th 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 * “”, “”, 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 * “”, “”, Exercise, UMTHF 8:00AM-9:00AM * CSC 226, 001, Discrete Mathematics for Computer Scientists, MWF 9:35AM-10:25AM | **CSC 116 gets removed, shifting activities below it upwards. Event for lunch also gets removed successfully with no pop-up.** |
| 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 label for “My Schedule” updates to “My Super Awesome Schedule”** |
| 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, “” * “”, “”, Exercise, “”, “”, UMTHF 8:30AM-9:00AM, Cardio days * CSC 226, 001, Discrete Mathematics for Computer Scientists, 3, tmbarnes, MWF 9:35AM-10:25AM, “” | **Final schedule displays with 4 activities, excluding the ones removed from the previous task. Name of schedule is still “My Super Awesome Schedule.”** |
| 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  Exercise,UMTHF,800,900,Cardio days  CSC 226,Discrete Mathematics for Computer Scientists,001,3,tmbarnes,MWF,935,1025 | **Upon exporting to the file and refreshing WolfScheduler, the contents of actual\_schedule.txt are updated to the final schedule provided by “My Super Awesome Schedule”** |
| 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 (Exercise) - all 4 columns are filled as expected for each activity. | **Takes the GUI back to the Scheduler view, with the same 4 activities in “My Super Awesome Schedule”** |
| Test 16: Course course conflict | Preconditions: None  Run WolfSchedulerGUI.  In the **Load Course Catalog** FileChooser dialog select: test-files/invalid\_course\_records.txt  Click **Select**  Add CSC 116, Section 001 to Schedule  Add CSC 316, Section 001 to Schedule  Add CSC 230, Section 001 to Schedule  *Check Results* | * First course (CSC 116) gets added to schedule * Second course (CSC 316) does not get added, and instead, a pop-up dialog box appears stating “The course cannot be added due to a conflict.” * Third course (CSC 230) is added successfully | **The second course is not added to schedule due to time conflict, but the third course is added due to no conflicts.** |
| Test 17: Event conflict due to course | Preconditions: Test 16 passes   1. Add first event, “Filler 1”    1. Meeting Days: Monday    2. Time: 11:05 AM - 11:40 AM    3. Event Details may remain empty 2. Add second event, “Filler 2”    1. Meeting Days: Wednesday, Thursday    2. Time: 11:00 AM - 11:40 AM    3. Event Details may remain empty 3. *Check Results* | * First event (Filler 1) is successfully added to schedule, below CSC 116 and CSC 230 * Second event is unable to be added, and a pop-up dialog box displays “The event cannot be added due to a conflict.” | **First two filler events are able to be added, but the third filler event is not added due to a conflict with CSC 116. Dialog box appears as described in the adjacent box.** |
| Test 18: Course conflict due to event | Preconditions: Test 17 passes   1. Remove CSC 116-001 from My Schedule 2. Retry adding Filler 2 event (contents should still be intact within Add Event section) 3. Retry adding CSC 116-001 4. *Check Results* | * CSC 116-001 is removed successfully from my schedule * Filler 2 event is successfully implemented into schedule * CSC 116-001 is now not able to be added, and a pop-up dialog box appears with the message, “The course cannot be added due to a conflict.” | **The course with the conflict with Filler 2 is removed, which enables Filler 2 to get added to the schedule. However, this makes the initial course, CSC 116-001, unaddable to the schedule, due to its inevitable time overlap. Thus, a dialog-box is displayed.** |
| Test 19: Different Day Conflict | Preconditions: Test 18 Passes   1. Remove Filler 1 and Filler 2 events. Now the only activity in My Schedule should be CSC 230. 2. Add an event, “230 Study Sessions”    1. Meeting Days: Sunday, Tuesday, Thursday, Friday, Saturday    2. Time: 1:00 PM - 2:00 PM    3. Event Details may remain empty 3. Add an event, “Play games!”    1. Meeting Days: Sunday, Monday, Thursday, Saturday    2. Time: 11:00 AM - 11:45 AM    3. Event Details may remain empty 4. *Check Results* | * Both filler events are successfully removed, leaving one course in the schedule only. * “230 Study Sessions” was successfully added to My Schedule. * “Play games!” is not able to be added due to a conflict on Mondays. A pop-up dialog box displays, saying “The event cannot be added due to a conflict. | **The schedule clears only CSC 230 remaining. The first event, with an overlapping time, is added to the schedule since there are no common days. However, the second event is unable to be added due to the time conflict that persists on Mondays. A dialog-box displays with the same message that is stated in the box to the left.** |
| Test 20: Arranged no Conflict | Preconditions: None  Clear Schedule if not already clear.  Add CSC 216-601 (Arranged course) to My Schedule  Add Event “24/7”:   * All Days of week selected * Time: 2:00 AM - 11:05 PM * Details may be left empty   Add CSC 217-601 (Arranged Course) to My Schedule  Add CSC 316-001 to My Schedule  *View Results* | * CSC 216-601 is added first * 24/7 event is successfully added after. * CSC 217-601 is added after as well * CSC 316-001 is not able to be added, and a pop-up dialog box appears stating “The course cannot be added due to a conflict.” | **Both Arranged courses and Event of all days of the week from 2:00 AM to 11:05 PM (essentially the entire day) are in the schedule, showing that arranged courses do not have any sort of time conflicts. However, a normal course, CSC 316-001, is unable to be added due to its nature of conflict with the “24/7” event.** |