# 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* | **Since the file has invalid course records none of the courses are loaded in the course catalog.** |
| 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* | **The course catalog loads all the 13 courses in the course catalog box.** |
| 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. | **Since no course is selected in the course catalog, we see a pop-up dialog: “No course selected in the catalog.”** |
| 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 following course is added to the my schedule table:**   * Name: CSC 216 * Section: 001 * Title: Software Development Fundamentals * Instructor: sesmith5 * Credits: 3 * Meeting: TH 1:30PM-2:45PM |
| 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. | **Since no item is selected in the schedule, we cannot remove anything.** |
| 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. | **Since we are trying to enroll in the same course again (just a different section) we get an error saying that we have already enrolled in CSC 216.** |
| 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 | **After selecting the relevant information needed for the event, we click add event which adds the event to the schedule along the list of courses.** |
| 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. | **When we try to add the given event we get a pop-up message saying that the event lunch is already there in the schedule.** |
| 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 | **An empty schedule table is displayed.** |
| Test 8: Add Several  [Modified] | 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~~ | **The following courses and events are added to the my schedule table:**   * **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** |
| Test 9: Remove  [Modified] | 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~~ | **CSC 116 and the lunch activity gets removed from the schedule and the following courses are in my schedule table:**   * 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 |
| 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” | **Changes the title of the schedule 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, “” * 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, “” | **The final schedule is displayed with title: “My Super Awesome Schedule” and the my schedule table has the following:**   * **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 8:00AM-9:00AM, Cardio days**   **CSC 226, 001, Discrete Mathematics for Computer Scientists, 3, tmbarnes, MWF 9:35AM-10:25AM, “”** |
| 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 | **The following contents are written to a file named actual\_schedule.txt:**  **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 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. | **When I click on revise schedule it takes us back to the scheduler view, where we can view the 13 courses and our current schedule that we just exported.** |
| Test 16  [New]  Adding a course and event with overlapping time (start time of event =end time of course) | Preconditions: Test 2 passes  Reset Schedule or open GUI if you have already closed it.  Select CSC 116, MW 9:10AM-11:00AM.  Then click add course.  Let’s add an event:  Event title: Lunch  Meeting Days: MTWHF  Event Start Time: 11:00 AM  Event End Time: 11:45 AM  Event Details: Food  Click Add Event. | “The event cannot be added due to a conflict.” | **Since the end time of CSC 116 is the same as the start time of event lunch, we get an error message due to the overlapping times – “The event cannot be added due to a conflict.”** |
| Test 17 [New]  Adding a course which occurs at the exact time of an event and same day | Preconditions: Test 2,16 passes  Select Event lunch in the My Schedule table.  Click Remove Activity.  Let’s add an event:  Event title: Gym  Meeting Days: W  Event Start Time: 9:10 AM  Event End Time: 11:00 AM  Event Details: Work it out!  Close GUI | “The event cannot be added due to a conflict.” | **Since CSC 116 class occurs at the exact same time as event gym, we get an error message due to the overlapping times – “The event cannot be added due to a conflict.”** |
| Test 18 [New]  Add event with no days selected | Let’s add an event:  Event title: Drive  Meeting Days:  Event Start Time: 7:10 AM  Event End Time: 8:30 AM  Event Details: Enjoy  Click add event.  Do not close GUI | “The event must occur at least one day.” | **Since the drive event occurs at the same exact time as the csc 116 class we get an error message saying that the event must on at least one day of the week.** |
| Test 19 [New]  Adding an event with overlapping time of course | Preconditions: Test 2,16 passes  Select Event Drive in the My Schedule table.  Click Remove Activity.  Let’s add an event:  Event title: study time  Meeting Days: W  Event Start Time: 9:20 AM  Event End Time: 10:30 AM  Event Details:  Click add event.  Close GUI | “The event cannot be added due to a conflict.” | **Since the event is on a overlaps during the csc 116 class we get an error message saying that an event cannot be added due to conflict.** |
| Test 20 [New]  Event starts and ends at the same time | Let’s add an event:  Event title: Get groceries.  Meeting Days: M  Event Start Time: 9:20 AM  Event End Time: 9:20 AM  Event details: apples | “The event cannot be added due to a conflict.” | **Since the start and end time of the end are the same, we get an error message that “The event cannot be added due to a conflict.”** |