# 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* | **The GUI application has loaded. All tables are empty including catalog, schedule, and events. Also, the course details entail only labels.** |
| 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* | * **Exact same results as Test 1, everything loads, except this time the Course Catalog contains exactly 13 different classes. These classes are 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** |
| 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 pop-up appears after clicking “Add Course”. The pop-up states “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 Course Details area now displays the details of the CSC 216 class. Also, the my schedule table now has 1 entry which is the course CSC 216 and its other details.** |
| 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. | **After clicking the “Remove Activity” button, a pop-up appears. This pop-up states “No item selected in the schedule”.** |
| Test 16: Conflict Course (new) | Preconditions: Test 2 and Test 4 have passed   1. Select the 2nd row of the Course Catalog table (CSC116, 002, Software Development Fundamentals) 2. Click **Add Course** 3. Select the 12th row of the Course Catalog table (CSC230, 001, C and Software Tools) 4. Click **Add Course** 5. *Check results* 6. Click **OK**   Close GUI | Course Details for CSC 230 are displayed.  My Schedule contains:   * CSC 216, 001, Software Development Fundamentals * CSC 116, 002   Software Development  Fundamentals  A pop-up dialog stating “The course cannot be added due to a conflict” is displayed. | **CSC 116 is added, and then a pop up appears after trying to add CSC230 and it says “The course cannot be added due to a conflict.”** |
| 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. | **After selecting the 5th row of the Course Catalog (CSC216 again), the course details for this course appear under Course Details. But once I click Add Course, a pop up appears stating “You are already enrolled in CSC216”.** |
| 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 | **Course details are still the same for 216, my schedule now contains CSC 216 and “lunch” with the correct details and times.** |
| Test 17:  Conflict Event (new) | Preconditions: Test 14 has passed  1. Enter the following in the Add Event section:   * Event Title: Basketball * 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 | A pop-up dialog stating “The event cannot be added due to a conflict” is displayed. | **After trying to add basketball, a pop up appears saying “The event cannot be added due to a conflict.”** |
| Test 15: Duplicate Event | Preconditions: Test 2, Test 4, and Test 14 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. | **The event was not added to “My Schedule”, instead a pop-up appeared. This pop-up stated “You have already created an event called Lunch”, so it did not let me add it to My 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 | **After clicking the button “Reset Schedule”, My Schedule was cleared and is now empty.** |
| Test 18:  Add several, with conflict  (New) | 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. *Check results*       10. 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   A pop-up dialog stating “The course cannot be added due to a conflict.” Is displayed. | **The first 3 courses are added successfully. Then, after trying to add the fourth, a pop up appears saying “The course cannot be added due to a conflict.”** |
| Test 8: Add Several (modified) | Preconditions: Test 2 and Test 16 have passed   * + - 1. 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. *Check results* 5. 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 | **After adding all the courses and events, My Schedule now has 5 items. It has the 34courses that were added including CSC216, CSC217, and CSC226. It also has 1 event, exercise All the information for each of the courses and events are listed as well, including section, title, and meeting information.** |
| 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*  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 | **The results are the exact same as test 8, except the course CSC116 is now gone. My Schedule only contains 4 items, with the respective 3 courses and 1 event.** |
| 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”. | **Instead of the table title being “My Schedule”, it was changed to “My Super Awesome Schedule” after clicking the “Set Title” button.** |
| Test 19: Conflict event over event (new) | Preconditions: Test 9 has passed   * + - 1. Enter the following in the Add Event section: * Event Title: Sports * Meeting Days: Mon, Wed, Fri * Event Start Time: 8:30 AM * Event End Time: 9:30 AM * Details: Basketball   + - 1. Click **Add Event**       2. Check results       3. Close GUI | Everything should be the same since test 9 with the updated title.  A pop-up dialog stating “The event cannot be added due to a conflict.” Is displayed. | **A pop up appears saying “The event cannot be added due to a conflict.”** |
| Test 20: Conflict course over course (new) | Preconditions: Test 9 has passed  Select the 1st row of the Course Catalog Table (CSC 116, 001, Intro to Programming – Java)  Click **Add Course**  Check results  Close GUI | Everything should be the same since test 9 with the updated title.  A pop-up dialog stating “The course cannot be added due to a conflict.” Is displayed. | **A pop up appears saying “The course cannot be added due to a conflict.”** |
| Test 11: Finalize (modified) | 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, “” | **There are two buttons available, “Revise Schedule” and “Export Schedule”. Below those buttons, there is the title “My Super Awesome Schedule” which contains CSC 216, CSC 217, Exercise event, and CSC 226. All of these activities have their respective sections, titles, credits, instructors, meeting information, and details. Note that the courses don’t have details, and the event doesn’t have a name, section, credits, or instructor.** |
| Test 12: Export (modified) | 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 | **After exporting and saving it to the test-files folder, the conents inside actual\_schedule.txt are 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.**  **This matches the exact contents of the expected results.** |
| Test 13: Revise (modified) | 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. | **After clicking “Revise Schedule”, the Wolf Scheduler reappears with “My Super Awesome Schedule” as it was before. It still contains the 3 courses of CSC 216, CSC 216, and CSC 226. It also still contains the 1 event of Exercise.** |