# Lab 02: Black Box Test Plan

## Test Overview

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| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| Test 1:  Open GUI  Equivalence Class | Preconditions: None   1. Run WolfScheduler/src as a Java application. 2. *Check Results* 3. Close GUI | The default GUI is displayed.  The Student Directory tab is blank.  The fields under Student Information are blank. | **The default GUI layout is displayed with no information filled in.** |
| Test 2:  Load Invalid Course Records  Equivalence Class | Preconditions: Test 1 has passed.   1. Select the option for **Load Student Directory** 2. Select **invalid\_student\_records.txt** under **test-files** 3. Click **Open** 4. *Check results* 5. Close GUI | The Student Directory tab remains blank. | **No student objects are added under Student Directory** |
| Test 3:  Load Valid Course Records  <Equivalence Class> | Preconditions: Test 1 has passed   1. Click the **Load Student Directory** option. 2. Select **student\_records.txt** under **test-files** 3. Click **Open** 4. *Check results* 5. Close GUI | The Student Directory tab shows a list of 10 students in the following order,   1. Zahir, King, zking 2. Cassandra, Shwartz, cschwartz 3. Shannon, Hansen, shansen 4. Demetrius, Austin, daustin 5. Raymond, Brennan, rbrennan 6. Emerald, Frost, efrost 7. Lan, Berg, lberg 8. Griffith, Stone, gstone 9. Althea, Hicks, ahicks 10. Dylan, Nolan, dnolan | **The number of students under the Student Directory and their given order match the expected results.** |
| Test 4: Create Student Directory  <Equivalence Class> | Preconditions: Tests 1 and 3 have passed   1. Click the **New Student Directory** button. 2. *Check results* 3. Close GUI | The Student Directory tab is blank. | **The students listed from the student\_records.txt file are removed and the Student Directory tab is made blank.** |
| Test 5: Add Student  <Equivalence Class> | Preconditions: Test 1 and 3 have passed.   1. In the section for Student Information, write,    * First Name: New    * Last Name: Student    * ID: nstuden    * Email: email@ncsu.edu    * Password: password    * Repeat Password: password    * Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Close GUI | A new student is added to the end of the list in the Student Directory,   1. Zahir, King, zking 2. Cassandra, Shwartz, cschwartz 3. Shannon, Hansen, shansen 4. Demetrius, Austin, daustin 5. Raymond, Brennan, rbrennan 6. Emerald, Frost, efrost 7. Lan, Berg, lberg 8. Griffith, Stone, gstone 9. Althea, Hicks, ahicks 10. Dylan, Nolan, dnolan 11. New, Student, nstuden | **A new student object (New, Student, nstuden) is placed below those already listed in the Student Directory, matching the expected results.** |
| Test 6:  Add Student Invalid First Name  <Boundary Value> | Preconditions: Test 1 and 3 have passed.   1. In the section for Student Information, write,    1. First Name:    2. Last Name: Student    3. ID: nstuden    4. Email: email@ncsu.edu    5. Password: password    6. Repeat Password: password    7. Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Click **OK** 5. *Check results* 6. Close GUI | A pop-up dialog box with the text “Invalid first name” is displayed.  No changes occur under Student Directory | **A pop-up dialog box is displayed, showing the text “Invalid first name”**  **No student objects are added to the Student Directory** |
| Test 7:  Add Student Invalid Last Name  <Boundary Value > | Preconditions: Test 1 and 3 have passed   1. In the section for Student Information, add,    1. First Name: New    2. Last Name:    3. ID: nstuden    4. Email: email@ncsu.edu    5. Password: password    6. Repeat Password: password    7. Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Click **OK** 5. *Check results* 6. Close GUI | A pop-up dialog box with the text “Invalid last name” is displayed.  No changes occur under Student Directory | **A pop-up dialog box appears. The text within it states “Invalid last name”**  **After the dialog box is closed, no students are added to the Student Directory** |
| Test 8:  Add Student Invalid ID  <Boundary Value > | Preconditions: Test 1 and 3 have passed   1. In the section for Student Information, add,    1. First Name: New    2. Last Name: Student    3. ID:    4. Email: email@ncsu.edu    5. Password: password    6. Repeat Password: password    7. Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Click **OK** 5. *Check results* 6. Close GUI | A pop-up dialog box with the text “Invalid id” is displayed.  No changes occur under Student Directory | **The pop-up dialog box appears with the text “Invalid id”.**  **No students are added to the student directory.** |
| Test 9:  Add Student Duplicate ID  <Equivalence Class> | Preconditions: Test 1, 3, and 5 have passed   1. In the section for Student Information, add,    1. First Name: Newer    2. Last Name: Student    3. ID: nstuden    4. Email: newemail@ncsu.edu    5. Password: newpassword    6. Repeat Password: newpassword    7. Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Click **OK** 5. *Check results* 6. Close GUI | A pop-up dialog box with the text “Student already in system.” is displayed.  No changes occur under Student Directory | **A pop-up dialog box appears. The text within it states “Student already in system.”**  **After the dialog box is closed, no students are added to the Student Directory** |
| Test 10: Student Invalid Email  <Boundary Value> | Preconditions: Test 1 and 3 have passed.   1. In the section for Student Information, add,    1. First Name: New    2. Last Name: Student    3. ID: nstuden    4. Email: email.ncsu@edu    5. Password: password    6. Repeat Password: password    7. Max Credits: 15 2. Select Add Student 3. *Check results* 4. Click **OK** 5. *Check results* 6. Close GUI | A pop-up dialog box with the text “Invalid email” is displayed.  No changes occur under Student Directory | **A pop-up dialog box appears. The text within states “Invalid email”**  **When the dialog box is closed, no changes are made to the student directory.** |
| Test 11: Add Student Invalid Password  <Boundary Value> | Preconditions: Test 1 and 3 have passed   1. In the section for Student Information, add,    1. First Name: New    2. Last Name: Student    3. ID: nstuden    4. Email: email@ncsu.edu    5. Password:    6. Repeat Password:    7. Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Click **OK** 5. *Check results* 6. Close GUI | A pop-up dialog box with the text “Invalid password” is displayed.  No changes occur under Student Directory | **The pop-up dialog box appears, displaying the text “Invalid password”**  **The Student Directory is unchanged** |
| Test 12:  Add Student Non-Matching Passwords  <Equivalence Class> | Preconditions: Test 1 and 3 have passed   1. In the section for Student Information, add,    1. First Name: New    2. Last Name: Student    3. ID: nstuden    4. Email: email@ncsu.edu    5. Password: password    6. Repeat Password: passwords    7. Max Credits: 15 2. Select **Add Student** 3. *Check results* 4. Close GUI | A pop-up dialog box with the text “Passwords do not match” is displayed”  No changes occur under Student Directory. | **The pop-up dialog box appears, displaying the text “Passwords do not match”**  **The Student Directory is unchanged** |
| Test 13: Remove Student No Selection  <Equivalence Class> | Preconditions: Test 1 and 3 have passed   1. With no student selected, click the Remove Student button 2. *Check results* 3. Click **OK** 4. *Check results* 5. Close GUI | A pop-up dialog box with the text “No student selected.” Is displayed.  No changes occur under Student Directory | **The pop-up dialog box appears, displaying the text “No student selected.”**  **The Student Directory is unchanged** |
| Test 14:  Remove Student  <Equivalence Class> | Preconditions: Test 1, 3 and 5 have passed   1. Select the student in the 11th row (New, Student, nstuden) from the directory. 2. Click **Remove Student** 3. *Check results* 4. Close GUI | New Student is removed from the directory. | **The 11th row is removed from the directory.**  **The list now displays 10 students.** |
| Test 15:  Save Student Records  <Equivalence Class> | Preconditions: Test 1, 3, 5, and 14 have passed   1. Click Save Student Directory 2. Select test-files. 3. Set File Name to “saved\_student\_records.txt” 4. Click **Save** 5. Close GUI 6. *Check results* | The file is present in test-files as “saved\_student\_records.txt”  The text within the file consists of,  Zahir,King,zking,orci.Donec@ametmassaQuisque.com,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,15  Cassandra,Schwartz,cschwartz,semper@imperdietornare.co.uk,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,4  Shannon,Hansen,shansen,convallis.est.vitae@arcu.ca,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,14  Demetrius,Austin,daustin,Curabitur.egestas.nunc@placeratorcilacus.co.uk,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,18  Raymond,Brennan,rbrennan,litora.torquent@pellentesquemassalobortis.ca,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,12  Emerald,Frost,efrost,adipiscing@acipsumPhasellus.edu,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,3  Lane,Berg,lberg,sociis@non.org,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,14  Griffith,Stone,gstone,porta@magnamalesuadavel.net,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,17  Althea,Hicks,ahicks,Phasellus.dapibus@luctusfelis.com,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,11  Dylan,Nolan,dnolan,placerat.Cras.dictum@dictum.net,0ÉRú±"ÃùuŸ\_¦Ù\7X²F´þâ9•{-OîFâapÄ,5 | **The file appears with the same text as student\_records.txt for the first 10 rows.**  **A blank newline is present at the 11th row.** |