

WEBAPP – USER INTERFACE/SERVER TESTING DOCUMENT

This document shows testing that was performed with the selenium IDE plug in. It includes testing of the major button initiated server requests and responses by simulating input and asserting page contents. Tests are described with pass or fail indication at in the first section of the documents, more in-depth results provided last.

The tests documented here can be replicated by importing the selenium IDE test files into a Firefox browser selenium IDE plugin. The aforementioned test files are to be found in *webApp/Tests/seleniumIDETests* folder and are in the form of .html files.

To replicate the tests the database needs to be populated by running the *populate.sql* file and a valid connection to the server should be established. Both of these requirements should be a result of successfully building and running the project instructions for which can be found in the README.md.

UI TESTS:

TEST 1 – Login page *fdmLogin.html*

Pass requirements:

- */index*, (the login page) can be opened.
- The correct page is displayed.
- That when a valid username and password for an admin is entered and the *submit* button is pressed access to main web app is granted. This is determined by asserting that the text “Create course” and “Schedule course” is on the page which is as expected.

PASSED

TEST 2 – Login Failed *fdmloginfail.html*

Pass requirements:

- */index* , (the login page) can be opened.
- The correct page is displayed.
- That when an in-valid username and password for an admin is entered and the *submit* button is pressed the page is refreshed and the login page is displayed again.

PASSED

TEST 3 – correct table for courses *fdmCheckCourseTable.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Correct field names for courses table are displayed in the correct place.

PASSED

TEST 4 – correct table for classrooms, *fdmCheckClassroomTable.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Correct field names for classrooms table are displayed in the correct place.

PASSED

TEST 5 – correct table for trainers, *fdmCheckTrainerTable.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Correct field names for trainers table are displayed in the correct place.

PASSED

TEST 6 – correct table for scheduled courses, *fdmCheckViewScheduledTable.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Scheduled courses button switches table to scheduled courses table.
- Correct field names for scheduled courses table are displayed in the correct place.

PASSED

TEST 7 – retrieving + displaying course data, *fdmCreateCoursePopup.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Correct field names for courses table are displayed in the correct place.
- Correct data retrieved from database displayed in correct places in table.

PASSED

TEST 8 – retrieving + displaying classroom data, *fdmCreateCoursePopup.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Correct field names for classrooms table are displayed in the correct place.
- Correct data retrieved from database displayed in correct places in table.

PASSED

TEST 9 – retrieving + displaying trainer data, *fdmCreateCoursePopup.html*

Pass requirements:

- */index*, (the login page) can be opened.
- Successful login
- Correct field names for trainers table are displayed in the correct place.
- Correct data retrieved from database displayed in correct places in table.

PASSED

DATABASE/SERVER TESTS:

The database and server were tested using a custom python test script: databaseResponseTest.py. The script performs http requests to the database and the responses are measured against those defined in the .py script. The script tests 6 different request types from the database and verified its functionality. The script is included in the webApp/Tests directory.

URLs tested by the script:

/trainer/data/

/existingcourse/data

/rqstdcourse/?ID=120

/existingbystring/?SEARCHTERM=comput

/usercourses/?ID=101

classroomById/?CLASSROOMID=2

The test script passed successfully when connected to the database.

UI TESTS – LOG OUTPUT

TEST 1 – Log results

- [info] Playing test case fdmlogin
- [info] Executing: |open | /index | |
- [info] Executing: |assertText | css=label.control-label | Username: |
- [info] Executing: |assertText | //form[@id='command']/div[2]/label | Password: |
- [info] Executing: |assertText | //button[@type='submit'] | Submit |
- [info] Executing: |type | id=username | admin |
- [info] Executing: |type | id=password | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] | |
- [info] Executing: |assertText | link=Create course | Create course |
- [info] Executing: |assertText | link=Schedule course | Schedule course |
- [info] Test case passed

TEST 2 – Log results

- [info] Playing test case fdmloginfail
- [info] Executing: |open | /index | |
- [info] Executing: |assertText | css=label.control-label | Username: |
- [info] Executing: |assertText | //form[@id='command']/div[2]/label | Password: |
- [info] Executing: |assertText | //button[@type='submit'] | Submit |
- [info] Executing: |type | id=username | notindatabase |
- [info] Executing: |type | id=password | notindatabase |
- [info] Executing: |clickAndWait | //button[@type='submit'] | |
- [info] Executing: |assertText | css=label.control-label | Username: |
- [info] Executing: |assertText | //form[@id='command']/div[2]/label | Password: |
- [info] Executing: |assertText | //button[@type='submit'] | Submit |
- [info] Test case passed

TEST 3 – Log results

- [info] Playing test case fdmloginfail
- [info] Executing: |open | /index | |
- [info] Executing: |assertText | css=label.control-label | Username: |
- [info] Executing: |assertText | //form[@id='command']/div[2]/label | Password: |
- [info] Executing: |assertText | //button[@type='submit'] | Submit |
- [info] Executing: |type | id=username | notindatabase |

- [info] Executing: |type | id=password | notindatabase |
- [info] Executing: |clickAndWait | //button[@type='submit'] ||
- [info] Executing: |assertText | css=label.control-label | Username: |
- [info] Executing: |assertText | //form[@id='command']/div[2]/label | Password: |
- [info] Executing: |assertText | //button[@type='submit'] | Submit |
- [info] Test case passed

TEST 4 – Log results

- [info] Playing test case fdmCheckClassroomTable
- [info] Executing: |open | /index ||
- [info] Executing: |type | id=username | admin |
- [info] Executing: |type | id=password | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] ||
- [info] Executing: |clickAndWait | link=Classroom ||
- [info] Executing: |assertText | css=th | Name |
- [info] Executing: |assertText | //th[2] | City |
- [info] Executing: |assertText | //th[3] | Address |
- [info] Executing: |assertText | //th[4] | Capacity |
- [info] Executing: |assertText | //th[5] | Type |
- [info] Executing: |assertText | //th[6] | Projector |
- [info] Executing: |assertText | //th[7] | studentComp |
- [info] Executing: |assertText | //th[8] | Whiteboard |
- [info] Executing: |assertText | //th[9] | Audio Recording |
- [info] Executing: |assertText | //th[10] | Video Recording |
- [info] Executing: |assertText | //th[11] | Wheelchair Access |
- [info] Executing: |assertText | //th[12] | Listening System |
- [info] Test case passed

TEST 5 – Log results

- [info] Playing test case fdmCheckTrainerTable
- [info] Executing: |open | /index ||
- [info] Executing: |type | id=password | admin |
- [info] Executing: |type | id=username | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] ||
- [info] Executing: |clickAndWait | link=Trainer ||

- [info] Executing: |assertText | css=th | Name |
- [info] Executing: |assertText | //th[2] | Address |
- [info] Executing: |assertText | //th[3] | Email |
- [info] Executing: |assertText | //th[4] | Phone |
- [info] Test case passed

TEST 6 – Log results

- [info] Playing test case fdmCheckViewScheduledTable
- [info] Executing: |open | /index | |
- [info] Executing: |type | id=password | admin |
- [info] Executing: |type | id=username | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] | |
- [info] Executing: |click | //button | |
- [info] Executing: |assertText | css=div.table_holder.scheduled-holder > table.table.table-striped > thead > tr.table_header > th | Course |
- [info] Executing: |assertText | //div[2]/table/thead/tr/th[2] | Start time |
- [info] Executing: |assertText | //div[2]/table/thead/tr/th[3] | End time |
- [info] Executing: |assertText | //div[2]/table/thead/tr/th[4] | Classroom |
- [info] Executing: |assertText | //div[2]/table/thead/tr/th[5] | Trainer |
- [info] Executing: |assertText | //th[6] | Remaining places |
- [info] Test case passed

TEST 7 – Log results

- [info] Playing test case fdmTestCourseDataRetrieval
- [info] Executing: |open | /index | |
- [info] Executing: |type | id=username | admin |
- [info] Executing: |type | id=password | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] | |
- [info] Executing: |assertText | css=th | Title |
- [info] Executing: |assertText | //th[2] | Description |
- [info] Executing: |assertText | //th[3] | Capacity |
- [info] Executing: |assertText | //th[4] | Duration |
- [info] Executing: |assertText | css=td | Software Engineering |
- [info] Executing: |assertText | //td[2] | Understand the software life-cycle. Select a development process appropriate for a given task and context. Use appropriate tools to manage the development process. Work effectively as team to capture the requirements, produce a design and complete the implementation for a given task. |
- [info] Executing: |assertText | //tr[3]/td | Communication Theory |
- [info] Executing: |assertText | //tr[3]/td[2] | This module builds on the first-year syllabus of ELEC1410 to give more quantitative/analytical tools for the design of modern communications systems, including Fourier analysis and signal processing, as well as the statistical treatment of signals |
- [info] Executing: |assertText | //tr[4]/td | Procedural Prog |

- [info] Executing: |assertText | //tr[4]/td[2] | Learn how to develop a solution to a problem and design and implement its solution as a procedural program. |
- [info] Executing: |assertText | //tr[5]/td | Electronic Circuits |
- [info] Executing: |assertText | //tr[5]/td[2] | The module begins with a look at the concept of ‘signal conditioning’ and then considers how some common signal conditioning functions can be implemented using circuits based on operational-amplifiers. |
- [info] Executing: |assertText | //tr[6]/td | Gates to PC |
- [info] Executing: |assertText | //tr[6]/td[2] | This module aims to give students a deep insight into how a modern computer system works, from the low-level logic gates to high-level programming languages. This is achieved through a series of laboratory tasks in which the students will develop the building blocks of a general purpose computer. |
- [info] Executing: |assertText | //tr[7]/td | Algorithms |
- [info] Executing: |assertText | //tr[7]/td[2] | n completion of this module, students should understand and be proficient in analysis and design of key algorithms that are fundamental to computing (searching, sorting, number conversion, goal seeking, backtracking) and in application of basic data structures (arrays, lists, stacks, and priority queues). |
- [info] Executing: |assertText | //td[3] | 50 |
- [info] Executing: |assertText | //td[4] | 15 |
- [info] Executing: |assertText | //tr[3]/td[3] | 45 |
- [info] Executing: |assertText | //tr[3]/td[4] | 21 |
- [info] Executing: |assertText | //tr[4]/td[3] | 45 |
- [info] Executing: |assertText | //tr[4]/td[4] | 17 |
- [info] Executing: |assertText | //tr[5]/td[3] | 40 |
- [info] Executing: |assertText | //tr[4]/td[4] | 17 |
- [info] Executing: |assertText | //tr[5]/td[3] | 40 |
- [info] Executing: |assertText | //tr[5]/td[4] | 10 |
- [info] Executing: |assertText | //tr[6]/td[3] | 60 |
- [info] Executing: |assertText | //tr[6]/td[4] | 10 |
- [info] Executing: |assertText | //tr[7]/td[3] | 55 |
- [info] Executing: |assertText | //tr[7]/td[4] | 11 |
- [info] Test case passed

TEST 8 – Log results

- [info] Playing test case fdmTestClassroomDataRetrieval
- [info] Executing: |open | /index | |
- [info] Executing: |type | id=username | admin |
- [info] Executing: |type | id=password | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] | |
- [info] Executing: |clickAndWait | link=Classroom | |
- [info] Executing: |assertText | css=th | Name |
- [info] Executing: |assertText | //th[2] | City |
- [info] Executing: |assertText | //th[3] | Address |
- [info] Executing: |assertText | //th[4] | Capacity |
- [info] Executing: |assertText | //th[5] | Type |
- [info] Executing: |assertText | //th[6] | Projector |
- [info] Executing: |assertText | //th[7] | studentComp |
- [info] Executing: |assertText | //th[8] | Whiteboard |
- [info] Executing: |assertText | //th[9] | Audio Recording |
- [info] Executing: |assertText | //th[10] | Video Recording |
- [info] Executing: |assertText | //th[11] | Wheelchair Access |
- [info] Executing: |assertText | //th[12] | Listening System |
- [info] Executing: |assertText | css=td | Rodger Stevens LT 19 |
- [info] Executing: |assertText | //td[2] | Leeds |
- [info] Executing: |assertText | //td[3] | LS2 9NH Roger Stevens Building |
- [info] Executing: |assertText | //td[4] | 100 |
- [info] Executing: |assertText | //td[5] | Lecture theatre |
- [info] Executing: |assertText | //td[6] | false |
- [info] Executing: |assertText | //td[7] | false |
- [info] Executing: |assertText | //td[10] | false |
- [info] Executing: |assertText | //td[12] | false |
- [info] Executing: |assertText | //td[8] | true |
- [info] Executing: |assertText | //td[9] | true |
- [info] Executing: |assertText | //td[11] | true |
- [info] Executing: |assertText | //tr[3]/td | Chemistry West LT A |
- [info] Executing: |assertText | //tr[3]/td[2] | Leeds |
- [info] Executing: |assertText | //tr[3]/td[3] | 211 Clarendon Rd, LS2 9JT |
- [info] Executing: |assertText | //tr[3]/td[4] | 110 |
- [info] Executing: |assertText | //tr[3]/td[5] | Lecture theatre |
- [info] Executing: |assertText | //tr[3]/td[6] | false |
- [info] Executing: |assertText | //tr[3]/td[7] | false |
- [info] Executing: |assertText | //tr[3]/td[10] | false |
- [info] Executing: |assertText | //tr[3]/td[12] | false |
- [info] Executing: |assertText | //tr[3]/td[8] | true |
- [info] Executing: |assertText | //tr[3]/td[9] | true |
- [info] Executing: |assertText | //tr[3]/td[11] | true |
- [info] Executing: |assertText | //tr[4]/td | Edge Sports Hall 1 |
- [info] Executing: |assertText | //tr[4]/td[2] | Leeds |
- [info] Executing: |assertText | //tr[4]/td[3] | Willow Terrace Rd, LS2 9JT |
- [info] Executing: |assertText | //tr[4]/td[4] | 90 |
- [info] Executing: |assertText | //tr[4]/td[5] | Hall |
- [info] Executing: |assertText | //tr[4]/td[8] | true |

- [info] Executing: |assertText | //tr[4]/td[9] | true |
- [info] Executing: |assertText | //tr[4]/td[11] | true |
- [info] Executing: |assertText | //tr[4]/td[6] | false |
- [info] Executing: |assertText | //tr[4]/td[7] | false |
- [info] Executing: |assertText | //tr[4]/td[10] | false |
- [info] Executing: |assertText | //tr[4]/td[12] | false |
- [info] Executing: |assertText | //tr[5]/td | Great Hall |
- [info] Executing: |assertText | //tr[5]/td[2] | Leeds |
- [info] Executing: |assertText | //tr[5]/td[3] | Great hall university of leeds |
- [info] Executing: |assertText | //tr[5]/td | Great Hall |
- [info] Executing: |assertText | //tr[5]/td[4] | 100 |
- [info] Executing: |assertText | //tr[5]/td[5] | Hall |
- [info] Executing: |assertText | //tr[5]/td[4] | 100 |
- [info] Executing: |assertText | //tr[5]/td[6] | false |
- [info] Executing: |assertText | //tr[5]/td[6] | false |
- [info] Executing: |assertText | //tr[5]/td[8] | false |
- [info] Executing: |assertText | //tr[5]/td[9] | false |
- [info] Executing: |assertText | //tr[5]/td[10] | false |
- [info] Executing: |assertText | //tr[5]/td[11] | true |
- [info] Executing: |assertText | //tr[5]/td[12] | false |
- [info] Executing: |assertText | //tr[6]/td | Tower of london |
- [info] Executing: |assertText | //tr[6]/td[2] | London |
- [info] Executing: |assertText | //tr[6]/td[3] | St Katharines & Wapping EC3N 4AB |
- [info] Executing: |assertText | //tr[6]/td[4] | 4 |
- [info] Executing: |assertText | //tr[6]/td[5] | Historical site |
- [info] Executing: |assertText | //tr[6]/td[7] | true |
- [info] Executing: |assertText | //tr[6]/td[8] | true |
- [info] Executing: |assertText | //tr[6]/td[9] | true |
- [info] Executing: |assertText | //tr[6]/td[11] | true |
- [info] Executing: |assertText | //tr[6]/td[6] | false |
- [info] Executing: |assertText | //tr[6]/td[10] | false |
- [info] Executing: |assertText | //tr[6]/td[12] | false |
- [info] Test case passed

TEST 9 – Log results

- [info] Playing test case fdmTestTrainerDataRetreival
- [info] Executing: |open | /index | |
- [info] Executing: |type | id=username | admin |
- [info] Executing: |type | id=password | admin |
- [info] Executing: |clickAndWait | //button[@type='submit'] | |
- [info] Executing: |clickAndWait | link=Trainer | |
- [info] Executing: |assertText | css=th | Name |
- [info] Executing: |assertText | //th[2] | Address |
- [info] Executing: |assertText | //th[3] | Email |
- [info] Executing: |assertText | //th[4] | Phone |
- [info] Executing: |assertText | css=td | Andrew Lumsden |
- [info] Executing: |assertText | //td[2] | 123 sandwich street |
- [info] Executing: |assertText | //td[3] | 111@leeds.ac.uk |
- [info] Executing: |assertText | //td[4] | 111 |
- [info] Executing: |assertText | //tr[3]/td | Edward Cottle |
- [info] Executing: |assertText | //tr[3]/td[2] | 321 curry grove |
- [info] Executing: |assertText | //tr[3]/td[3] | 222@leeds.ac.uk |
- [info] Executing: |assertText | //tr[3]/td[4] | 222 |
- [info] Executing: |assertText | //tr[4]/td | Samrudh Sharma |
- [info] Executing: |assertText | //tr[4]/td[2] | 45 Italian food lane |
- [info] Executing: |assertText | //tr[4]/td[3] | 333@leeds.ac.uk |
- [info] Executing: |assertText | //tr[4]/td[4] | 333 |
- [info] Executing: |assertText | //tr[5]/td | Michael Glad |
- [info] Executing: |assertText | //tr[5]/td[2] | 34 Fish and Chips street |
- [info] Executing: |assertText | //tr[5]/td[3] | 444@leeds.ac.uk |
- [info] Executing: |assertText | //tr[5]/td[4] | 444 |
- [info] Executing: |assertText | //tr[6]/td | Callum Boustaed |
- [info] Executing: |assertText | //tr[6]/td[2] | 67 KFC avenue |
- [info] Executing: |assertText | //tr[6]/td[3] | 555@leeds.ac.uk |
- [info] Executing: |assertText | //tr[6]/td[4] | 555 |
- [info] Test case passed