# User Testing with Selenium IED:

All user testing was done through Selenium IED, using Selenium allowed me to automate the testing phase for each page of the web application. Selenium allowed me to create test scripts which would automatically insert test text into each text field for the teacher and student registration pages and the lesson application page; this saved me time and allowed me to complete the same action several times over in a short period of time to allow for any bugs to show their face.

## Testing Log

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| **Date** | **Description** | **Problems** | **Approx. Time Taken** |
| Monday 5th | Set up local environment, server and Selenium IED. |  | 45 minutes |
| Monday 5th | Began testing unfinished student and teacher registration pages. |  | 20 minutes |
| Tuesday 6th | Did further testing on updated student and teacher registration changes after they were merged with the master branch. Also started testing on lesson application page. | Received “email already in use error” even when that email had never been used on student and teacher registration pages. | 17 minutes |
| Wednesday 7th | Confirmed which pages email error was in. Also confirmed if I could still log in even if the error appeared. |  | 8 minutes |
| Wednesday 14th | Testing conducted on instrument hire. | Different students can hire the same instrument | 38 minutes |
| Sunday 18th | Began testing on AALV-58, 59 and 29 | Incorrect account deleted in AALV-29 and couldn’t find required pages to test AALV-58. | 45 minutes |
| Monday 19th | Continued on AALV-29 and started on AALV-15, 32 and 35. General website testing. | AALV-15: Filler text ‘No Requested Instruments to display’ is still shown next to requested instrument information. AALV-32: Requested instrument hire not appearing in list. | 1.5 Hours |
| Monday 19th | Continued testing after bug fixes. AALV-15 and 32 and general site tests. | Single page able to be access without being logged in. | 32 minutes |

## AALV-14 Student – Hire Instrument

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| **Steps** | **Description** | **Problems Encountered** |
| Click on ‘Students’ and then ‘Register’ to register for student account. | The students’ dropdown box should display ‘Lesson Info, Register and Apply for Lessons’. |  |
| Complete account registration. | Account registration includes providing a name, address, mobile number, email and password. |  |
| Log into website using new account. | Account log in using email and password provided in previous step. |  |
| Click on ‘students’ and then ‘Apply for Lessons’. | ‘Apply for Lessons’ should let the student select the instrument they wish to use as well as the start time and day for that lesson. |  |
| Select ‘Triangle’ from instrument type and then ‘Hire’ from BYO or Hire. | By selecting ‘Hire’ the student indicated they wish to hire that instrument. A new list of hirable instruments should appear below. |  |
| Select the triangle with serial ‘T000001’ from the instrument to hire list. | This list of instruments should show all hired out and available instruments. |  |
| Select a day and start time for the lesson. | The student indicated the day of the week and time they want the lesson to commence. |  |
| Click ‘submit’. | The status of the selected instrument should now be ‘hired’. |  |
| Repeat above steps. | Other students should not be able to hire out the same instrument during that timeslot. | Different students are able to hire out the same item during the same timeslots. |

## AALV-29 Manager – Deactivate Old Accounts

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| **Steps** | **Description** | **Problems Encountered** |
| Hover over ‘Techers’ and then click ‘Register’. |  |  |
| Register a new test teacher account by filling in required fields. |  |  |
| Hover over ‘Management’ and then select ‘View Teacher Accounts’. |  |  |
| Click on the test teacher account. |  |  |
| Click on ‘Deactivate’ |  |  |
| Confirm correct account has been deactivated. |  | Incorrect account deactivated. |
| Repeat above steps. |  |  |

## AALV-59 Student – Borrowed Info

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| **Steps** | **Description** | **Problems Encountered** |
| Log in using test student (with borrowed instrument). |  |  |
| Hover over ‘Students’ and then click ‘View Borrowed Instruments’. |  |  |
| Confirm student has only one borrowed instrument. |  |  |
| Hover over ‘Students’ and then click ‘Register’. |  |  |
| Create new test student account (nothing borrowed). |  |  |
| Hover over ‘Students’ and then click ‘View Borrowed Instruments’. |  |  |
| Log in as test student. |  |  |
| Confirm student has no borrowed instruments. |  |  |
| Repeat above steps. |  |  |

## AALV-58 Student – Lesson Information

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| **Steps** | **Description** | **Problems Encountered** |
| Hover over ‘Students’ and click ‘Lesson Information’ |  |  |
| Ensure that all information is on page and relevant. |  |  |

## AALV-15 Student – View Instrument History

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| **Steps** | **Description** | **Problems Encountered** |
| Log in as student. |  |  |
| Hover over ‘Students’ and then click ‘Apply for lessons’. |  |  |
| Apply for a lesson and request an instrument hire as test student. |  |  |
| Hover over ‘Students’ and then click ‘View borrowed instruments’. |  |  |
| Confirm the requested hire info is under ‘Requested Instruments’. |  | Filler text ‘No Requested Instruments to display’ is still shown next to requested instrument information. |
| Log out as student test and log in as manager. |  |  |
| Approve hire request. |  |  |
| Log back in as student test and confirm instrument is now under ‘Hired Instruments’. |  | Request not appearing in list. |
| Approve/deny request. |  |  |
| Log back in as student and confirm request is now approved/denied. |  |  |

## AALV-35 Manager – Mark Instruments as Returned

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| **Steps** | **Description** | **Problems Encountered** |
| Have student request an instrument to hire. |  |  |
| Log in as manager. |  |  |
| Log in as manager and navigate to ‘return hired instruments’. |  |  |
| Click on hired out instrument and then ‘Mark as returned’. |  |  |
| Confirm via student account that instrument has been marked as returned. |  |  |
| Repeat above steps. |  |  |

## AALV-32 Manager – View Instrument Hire Requests

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| **Steps** | **Description** | **Problems Encountered** |
| Have student request an instrument to hire. |  |  |
| Log in as manager. |  |  |
| Log in as manager and navigate to ‘View hire requests’. |  |  |
| Confirm that approving and denying of request work. |  | Instrument hire request not appearing in list. |
| Log in as student and confirm instrument request has been denied/approved. |  |  |
| Repeat above steps. |  |  |

## General Website Testing

/teacher/studentApplications

/student/instruments/borrowed

/management/teachers

/management/instrument/requests

/information

/login/student

/login/teacher

/login/manager

/register/manager

/management/instrument/new

/management/instrument/return

/lessons/application

/register/student

/register/teacher

The above URLs were tested to ensure that when a user isn’t logged in, with any accounts, they will be unable to access any pages that they shouldn’t be able to access. Only one, /teacher/student Applications, was able to be accessed when not logged in.

# Selenium Screenshots

## AALV-29:

During my testing with Selenium IED I encountered the above problem multiple times, Selenium didn’t properly detect and text input boxes and would therefore fail the automated testing. This problem was fixed by attempting the test multiple times or recording a new ‘suite’ and running that again.