**Testing Documentation**

This file briefly documents acceptance testing performed for the project’s user stories.

For each user story, there is a task with the goal of verifying that the user story had successfully been completed. This generally involves going through steps to ensure that the acceptance criteria have been met. The verification steps used for this project include (but are not limited to):

* Automated testing using Selenium
* Informal testing of the new feature by either other members of the group, a client, and checking to see if what has been developed meets expectations
* Documenting how the work done has directly met the acceptance criteria

Acceptance criteria for user stories can be found on the project’s JIRA.

**Selenium Testing**

Selenium was used as a tool to provide automated testing of the functionality of the website. This was especially useful for ensuring functionality when rewriting or reorganising source code. The test suite (and test cases) can be found in */doc/selenium*.

**User Story Acceptance Testing**

**Sprint 1**

**Story ID 32: Efficient Development Environment**

* The story acceptance criteria was found to have been directly met
  + All project members are part of the Github project
  + Jira has been set up and all issues have been added it for tracking purposes
  + A server instance has been created using Amazon EC2, and LAMP stack was installed
  + The permission key and database passwords for the web server were shared as needed

**Story ID 40: Developer: Database**

* The story acceptance criteria was found to have been directly met
  + The proposed database structure suits the project
  + The database tables with the appropriate columns have been created
  + Database users and passwords have been shared

**Story ID 31: Website Registration / Profile Creation**

* Sign up form and log in functionality was successfully added to the website
* Feature was demonstrated to the client at the end of sprint 1, and issues were noted and addressed
* Testing was done internally by the group by simply inputting random information and checking to see if the form works as intended, and that new student’s information was added to the database
* A Selenium test case was created
  + Go to the home page, and click the sign up link – expect to be prompted for date of birth
  + Enter in invalid dates of birth, including empty fields and invalid dates (e.g. 31st February) and expect to receive the error messages describing what the user did wrong
  + Enter in a valid date and expect to see the details form
  + Test form validation by inputting invalid data/no data into the form, and submitting and seeing if the page displays the error messages as expected
  + Input valid data and expect to see a confirmation of success
  + Repeat process for a date of birth for under 18, and a date of birth for over 18 to verify that parental guardian details are only requested for cases of under 18 students

**Story ID 17: List of Teachers**

* Feature was demonstrated to the client at the end of sprint 1, and issues were noted and addressed
* Placeholder information was created and the feature was tested
* A Selenium test case was created
  + Open up the teachers’ page and check there is a list of all the teachers with their details
  + Select a category of instruments and click Search – check that there are only teachers that specialise in the requested type of instruments
  + Repeat for other categories, and for when “All” is selected

**Sprint 2**

**Story ID 36: Updateable Profile**

* Students are able to go to their profile and click on the update profile link, and update their details
* Internal testing of the update profile page was done by using dummy accounts, updating their information, and then checking the stored information in the database, and was displayed on the profile page
* A Selenium test case was created
  + Go to profile page and click update profile – expect to see profile update form
  + Test form validation by inputting invalid data/no data into the form, and submitting and seeing if the page displays the error messages as expected
  + Input valid data and expect to see a confirmation of success
* **Story acceptance criteria was not fully met**
  + Some details that the student may want to edit are not available to edit

**Story ID 12: Instrument hire catalogue**

* Placeholder instruments were created and added to the database for testing and demonstration purposes
* A Selenium test case was created
  + Visit the instruments page – check there is a list of all instruments with details
  + Select a category of instruments and click Search – check that there are only instruments of that type
  + Repeat for other types of instruments, and for when “All” is selected
* **Story acceptance criteria was not fully met**
  + The following part of the criteria is not yet satisfied: “Having made a choice of instrument, the user is then able to proceed and select a payment option.”

**Story ID 13: Ability to update instrument hire catalogue**

* Placeholder management page was created, with links to add and create new instrument entries and test the developed functionality
* Selenium test cases were not yet created as integration on the website is going to change
* **Story acceptance criteria was not met**
  + The following part of the criteria is not yet satisfied: “When the owner/staff visits the instruments page, they are able to see an edit button for each instrument which allows them to freely update its information and picture. Otherwise an “add new instrument button” is shown when not in a specific instrument. This opens up to a link which allows the owner to add a new instrument to the inventory.”
  + **Only basic prototype and functionality is completed**

**Story ID 39:** **Make lesson bookings**

* Placeholder booking page was created to test basic functionality of the calendar and booking system
* Simple manual testing was done by inputting random details for bookings and verifying that the booking was added to the database. This was aided by printing what was happening/variables to the web page.
* Selenium test cases were not yet created as integration on the website is going to change
* **Story acceptance criteria was not met**
  + **Full development and integration of the feature is not complete**
  + **Only basic prototype and functionality was completed**