National Library of Wales:  
Shipping Records Exploration System

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| Title: | Outline Project Specification |
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# Project Description

The Shipping Records Exploration System project will develop a web-based application to help the National Library of Wales find, search, and explore the library’s archives of “Ship” and “Mariner” details from the mid C19 to early C20. This information will also be available to public members of the library.

Since 2015, The National Library has made publicly available their large collection of shipping record data. This dataset contains information on the crew of ships passing through Aberystwyth Harbour between 1856 and 1914, transcribed from the original paper forms to a digital format by volunteers [1]. Given the volume of records in the data set, it is very difficult for people browsing the data to search for any specific data, or to explore the information of any particular given ship or crew member [2] as it involves searching the ~500 Excel spreadsheets manually.

This project will develop a web application to assist members of the public in searching and exploring this data. There will be an interactive exploration graph using the node and edge system included in the D3.js library [3]. This should allow a user to examine a specific ship’s details, along with any crew members on board, or any crew member’s details, along with any ships they served on.

The project will also develop a relational database management system to store the data in a reasonable manner.

The application is being developed for the National Library of Wales.

The project will be using a modified form of the Feature Driven Development (FDD) methodology to manage the tasks. An early part of the project will be to attempt to fit the team-based FDD structure onto a single-person project.

# Proposed Tasks

* **Investigation of server configurations –** Exploring the options for hosting the application. This will decide the type of server that is going to be used, as well as the development language.
* **Setting up local build environment and version control system –** Exploring the options for version control system, such as svn or git repository.
* **Setting up server-side environment for database and web application**
* **Development**
  + **Transferring data to Database –** The first part of the development will be to take the data transcribed into Excel Spreadsheets by volunteers and to import it into an RDBMS. This will include normalising the data to remove as much repetition as possible.
  + **Node based exploration graph –** The second part of the development will be to develop the web application centring around the node-based exploration graph.
* **Project Meetings and Project Diary**
* **Preparation for Demonstrations**

# Project Deliverables

* **Overall Model**
  + **Class Diagrams**
  + **Sequence Diagrams**
  + **Model Notes**
* **Features List**
* **Mid-Project Demonstration Notes**
* **Server Software**
* **Test Scripts**
* **Final Report**
* **Final Demonstration**

# Bibliography

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| [1] | National Library of Wales, “Aberystwyth Shipping Records 1856 - 1914,” 06 July 2015. [Online]. Available: https://www.llgc.org.uk/index.php?id=6670. [Accessed 14 January 2018]. |
| [2] | National Library of Wales, Interviewee, *Discussion with Client.* [Interview]. February 2018. |
| [3] | Data-Driven Documents, “D3,” [Online]. Available: https://d3js.org/. [Accessed 09 February 2018]. |