

# Final Requirements Specification

## Introduction

### Aim

To develop an MVC-style web application to hold suggestions for potential final year project ideas. It should give the ability for students to suggest new project ideas, as well as edit or withdraw their own submitted ideas. Administrators should have free reign on these abilities.

### Deficiencies of the Current System

The system in its current form is highly limited in its functionality, where even simple features are not implemented. This includes editing and withdrawing submitted ideas to the database, which provides a rather poor user experience and means that the general quality of ideas in the database suffers.

The searching abilities of the system are also severely lacking where they don't enable users to properly explore the submitted project ideas. For example, the search system currently in-place does not enable for specific fields in the submitted ideas to be searched. Instead, it simply searches for the term provided anywhere in the idea text. This frequently gives unwanted results, which degrades the user experience.

The current system also does not follow an MVC-style architecture, and as such, it is not as maintainable as it could be.

The current system can be found at: <http://www.sums.port.ac.uk/spi/>

# Features

The new system will provide users with a number of features. Some of these features are abilities of the current system, others will be completely new. The new features will seek to overcome the shortcomings of the aforementioned deficiencies of the current system.

## Feature List

### User System with Privilege Levels

The system will handle users to cater for differing levels of privileges. The user system hierarchy will be as follows:

- **Unregistered users.** These users will be the least privileged, and consequently they will only being able to use a very limited number of features.
- **Registered users.**
  - **Students.** These users will be able to use the features of the system that do not infringe on changing content they have not produced.
  - **Administrators.** These users will be the most privileged, having complete access to all the site features.

The above groups of users will be mentioned for each of the following features to show if authorisation access is required.

### Submit New Project Ideas

Registered users will have the ability to submit new ideas. They will be provided with a form containing various fields - some optional and other required - to describe their idea. The form fields for the current system will still be used, plus a few new ones may be added to enable for better searching. One of these new fields may include the expected (or potential) programming languages and/or technologies that may be used in the form of a comma delineated list.

### Modify Submitted Project Ideas

Registered users will have the ability to modify submitted ideas by either editing the content or withdrawing the idea altogether. Student users will only be allowed to modify

their own submitted ideas. Admin users will be able to freely modify any submitted ideas.

## Searching Submitted Project Ideas

Any users (both registered and unregistered) will be able to search through the submitted project ideas. The new search system will enable for users to browse through project ideas according to any fields (such as title or description) of the idea.

## Task Schedule

The expected development stage each task will be completed in will vary. The following shows the development stages:

- **Alpha.** To be completed by 2016-03-04
- **Beta.** To be completed by 2016-03-11
- **Final.** To be completed by 2016-03-18

Non-critical tasks (which may include additional features) that may be included if things are going well will be marked with **Time Dependent** for the development stage.

Expected development stage for implementing each feature:

Task	Development Stage
User interface design	Alpha
Database design and creation	Alpha
User system with privilege levels	Alpha
Submit new project ideas	Alpha
View all submitted project ideas	Beta
Modify submitted project ideas	Beta
Searching submitted project ideas	Final
Ajax for usage for responsive UI filtering	Time Dependent