



# Individual Report

Autumn 2014

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**Module:**

Prj300

**Program:**

B.Sc. in Web Development and Creative Media, Level 7 Year 3

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**Project Source:**

[www.studentwebport.com](http://www.studentwebport.com)

[www.mobile.studentwebport.com](http://www.mobile.studentwebport.com)

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## 1) Introduction

### 1.1) My role within the team

#### Website

- **Interface Design**  
I was responsible for interface design and user experience. This included all aspects of design elements such as wireframes, logo design, custom graphics, colour scheme and layout.
- **Styling**  
I wrote CSS, such as style overrides of Joomla/Community Builder default styles.
- **Student Profiles**  
I took on the responsibility of implementing the student profiles section of the site. This included the configuration of the extension "Community Builder" which allowed me to create a student profile and build upon it to add more functionality such as a portfolio gallery. I also created a student profiles list page in order for registered users to browse all student profiles.
- **Joomla content**  
I worked on the CAM structure within Joomla building categories, articles and menus and added content.
- **Digital Marketing**  
I took responsibility for incorporating visual digital marketing on the site in the form of slogans and infographics.
- **Responsive Design**  
I played a key role in assuring that the site would be fully accessible on all digital devices. This was carried out by facilitating Bootstrap's responsive functionality and CSS media queries.

#### Mobile App

- **Interface Design**  
I played a part in the interface design of the mobile app and provided a wireframe design.

### 1.2) Working within the team

During the course of this project I feel I worked well as part of the team and demonstrated the many qualities of a "team player". Working as part of a team was something I had previous experience in, largely from my previous career as part of a sales team but also a little from previous small scale college group projects. Although this was quite a different scenario and was a more intense team situation than I was accustomed to, I took my past experiences and the soft skills I had acquired and

applied them to this project. One of the most important skills required to work well in a team environment is good communication. I felt that maintaining regular contact with all the group members was crucial to the project running smoothly and significantly increased productivity. I made sure to keep everyone updated on what I was working on and what I planned to do next. Using agile project management throughout was a very positive way to maintain regular communication throughout the project by having daily stand up and weekly meetings.

Keeping good communication also came in to play when a problem arose or if you were unsure of a particular task, as they say *a problem shared is a problem halved* and this was very true in regards to webport. If I was having trouble with something I would not hesitate to approach a group member to voice my worries. Likewise I would always provide a listening ear to everyone in the group even if the problem they were having was beyond my scope, I would still try my best to give suggestions and above all encouragement. For example while James was working on the mobile app he came across some difficulties and although I had no knowledge of app building we would sit down together, along with Lianna and have a look at his work and give our input.

I have no doubt that all team members felt the same as I did in regards the importance of good communication. However I do feel that Liam didn't find it as easy to communicate with the group especially when it came to difficulties with tasks and also when working in close collaboration with other group members. I can only surmise that this may have been a confidence issue. I offered advice and words of encouragement to Liam at different stages of the project. Liam decided to leave the group in the later stages of the project. Following this unexpected change in the group, we held a meeting to evaluate the situation and adapted our remaining tasks to accommodate this change.

Having a group member playing a team leader role was an important part of the running of this project. In the early stages of the project we found it challenging to distinguish roles and to organise individual tasks. This was due to a number of reasons but was mainly due to the absence of a team leader. In the first number of weeks into the project we decided that we were going to take turns on a two weekly basis to fill the role of team leader. This may have worked against us so we decided that it would be better to appoint a team leader to guide the project for the rest of the year. Lianna was a willing candidate for the job and was chosen because of her past experience in the area and in her ability to envisage the end product.

## 2) Running of the project

### 2.1) Meetings

Following agile project management principles we carried out daily stand up meetings. We also had a weekly meeting or a sprint retrospective which would consist of outlining what we would keep working at or what we would change or do differently. We met as a group to further discuss tasks and work together. Weekly meetings were held with our project supervisor. We used this time to ask questions, brainstorm, discuss problems and allocate tasks. Every group member participated and made an effort to attend all meetings.

## 2.2) Was the project a success as a team?

In my view I think the project was a success as a team. From the early stages of the project we set goals and we committed ourselves to reaching those goals. Now we are at a point where we can step back and see how far we've come and how much we've learnt. The final year project module is there to give us a taste of working in a real team environment and to learn from the experience. So looking at it from that angle I can definitely say everyone gained a huge amount from the experience therefore it was a success. In regards objectives, I think there will always be those "in hindsight" moments where you think maybe if I had done this different or if I had more time I could've done that but all in all despite a certain amount of teething problems and setbacks along the way I feel we have done what we set out to do.

## 3) Contribution

### Research

I spent time on researching different technologies such as content management systems, CSS frameworks, database technologies and what languages to use. Once these were chosen I played a role in putting a project proposal together to give to our supervisor.

Research was an ongoing requirement throughout the project and was also carried out for choosing such elements as Joomla extensions, design choices and trouble shooting in general.

### Sitemap

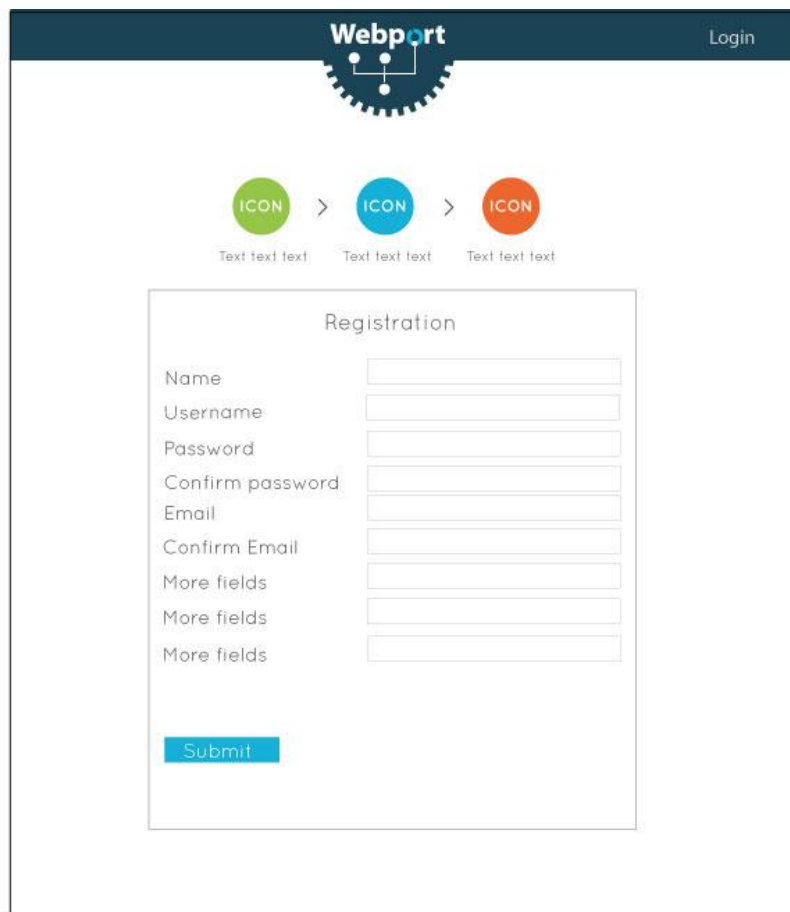
I sat down along with the group and started to plan the structure of the site and its navigation. I produced a paper based sitemap.

### Design

#### Website Design & Logo

My role in webport was heavily in design. My first task was to design an interface for the homepage and template for the site. Using the sitemap as a guide I drew up paper based sketches of my design ideas in order to get feedback from other group members on the kind of content we wanted and the layout of the homepage. Then I created a wireframe using Illustrator to define the information hierarchy and to plan the layout according to how I wanted the user to process the information. I spent time giving consideration into design elements such as colour schemes and choice of font. Having received the approval of all group members I proceeded to develop this design into a detailed wireframe based on a 12 grid system in order for it to be built in Twitter Bootstraps 12 grid based framework. I continued to add to this design, creating attention grabbing graphics such as the homepage banner image. Also, heading graphics such as, "about webport", "student info", "business info". I used an infographic on the "About us" page to help the user understand the concepts of webport. I also spent time designing the logo for webport.

## Registration Form Mock-up:



The mock-up shows a web page for 'Webport'. At the top is a dark blue header with the 'Webport' logo (a gear with a circuit inside) and a 'Login' link. Below the header are three colored circles (green, blue, orange) each labeled 'ICON' with a right-pointing arrow between them. Under each circle is the text 'Text text text'. The main content area contains a 'Registration' form with the following fields: Name, Username, Password, Confirm password, Email, Confirm Email, More fields, More fields, and More fields. A blue 'Submit' button is at the bottom of the form.

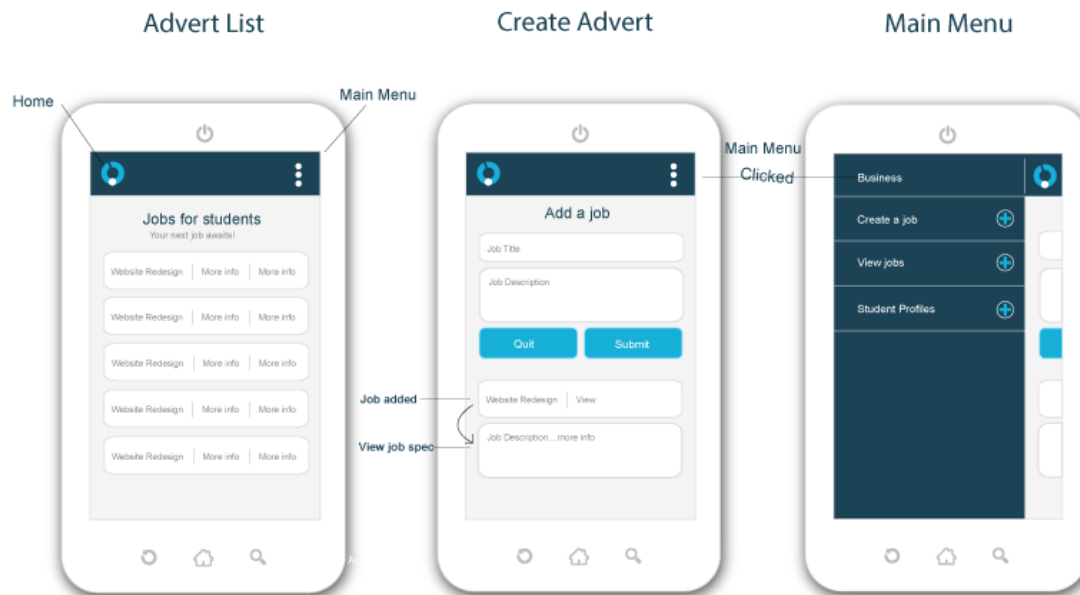
## Samples of Logo Design ideas:



## Mobile Design

I did research into the concepts of app design and created an interface design for the webport mobile app using Illustrator based on the mobile app sitemap and provided James with a mock-up design.

Sample of Mobile Design Mock-up:



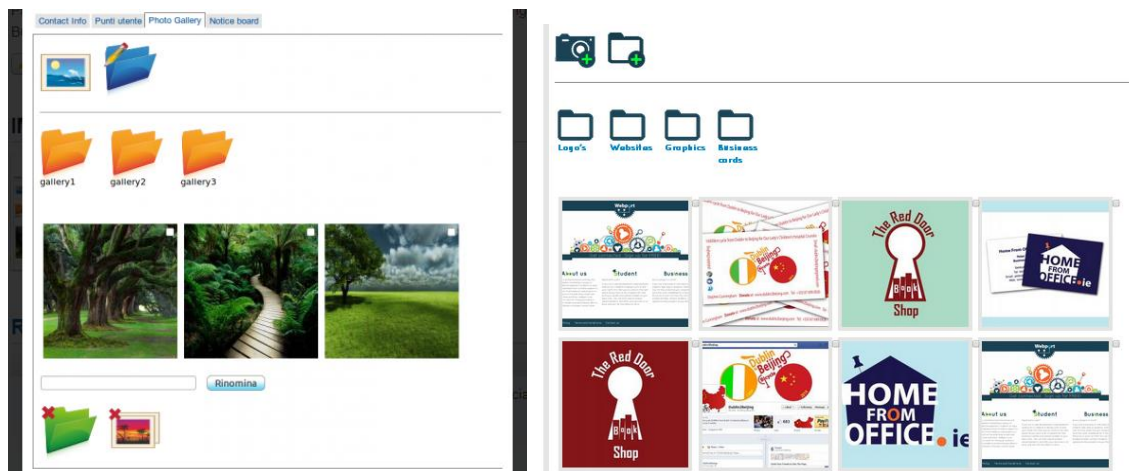
## Template & Joomla

Once the design was finalised, myself and Lianna set about building custom templates, one for the homepage and one for the rest of the site using Bootstrap, HTML5 and CSS3. Having come to the realisation that we would only need one template that could be used throughout the site, we decided that Lianna would continue on with the template and I would move on to prepare our Joomla site for the installation of the template. I created a CAM system i.e. built categories, article and menus. Once the template was installed I set about building the layout and design in Joomla, adding images and publishing content.

## CSS

Next I moved on to my next task and my biggest task of writing CSS. The majority of my time was spent writing custom CSS and doing style overrides on default template styles such as Bootstrap and Joomla. Also, Community builder default styles such as student profiles, student list page, registration/login forms and error messages. I also individually styled each plug-in I installed such as the "like" button, Comments wall and photo gallery. I used the browser add-on "Firebug" to help me target styles.

### Gallery Styling:



### Community Builder (Student Profiles)

Community builder is a social community networking solution that allowed me to build the student profiles section of the site. James had began a little of the configuration before he moved on to working on the app. I continued on with the configuration process controlling such things as what fields display on registration form, selecting access levels, positioning and layout of content on the profile, required fields etc. Community Builder allows you to add fields to allow the user add information to their profile. It also allows you to create tabs to display this information. I created fields and tabs so that students can add such info as skills, profile info and about me. I also created a delimiter field with customised html.

To add features to the profile I used a number of add-ons. I installed a gallery tab called "photo gallery for cb" in order for students to be able to upload samples of their work and display them in a slideshow and categorise if required.

I added a profile "like" button to the profile that displays the number of likes the student has which I felt would encourage interactivity.

I set up and configured a user list page which lists student profiles so that users can browse all student profiles. I enabled this to allow users search by college.

I installed and configured a comments wall add-on called "cb notice board" beneath the profile to allow the student to use it as a comments or blog wall and for the student, fellow students or businesses to be able to add comments, testimonials, feedback, images, videos and hyperlinks.

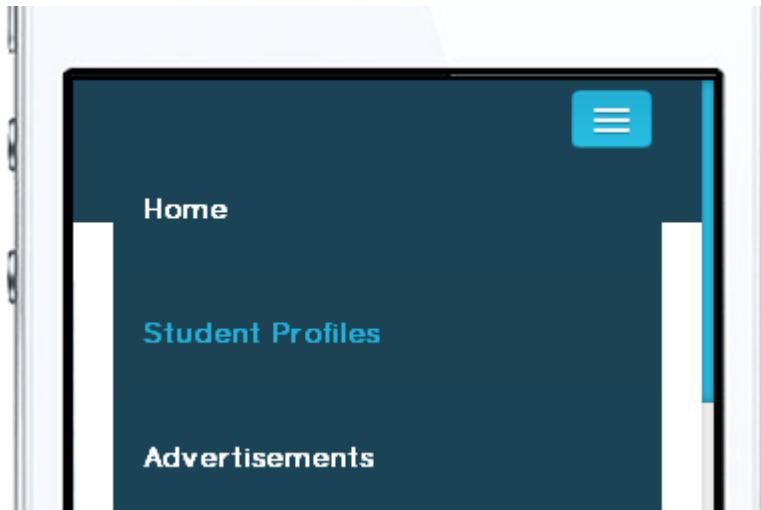
To enhance ease of use and user experience I installed a page navigating plug-in called "Skyline CB Profile Navigator" which allows the user to easily navigate between student profiles.



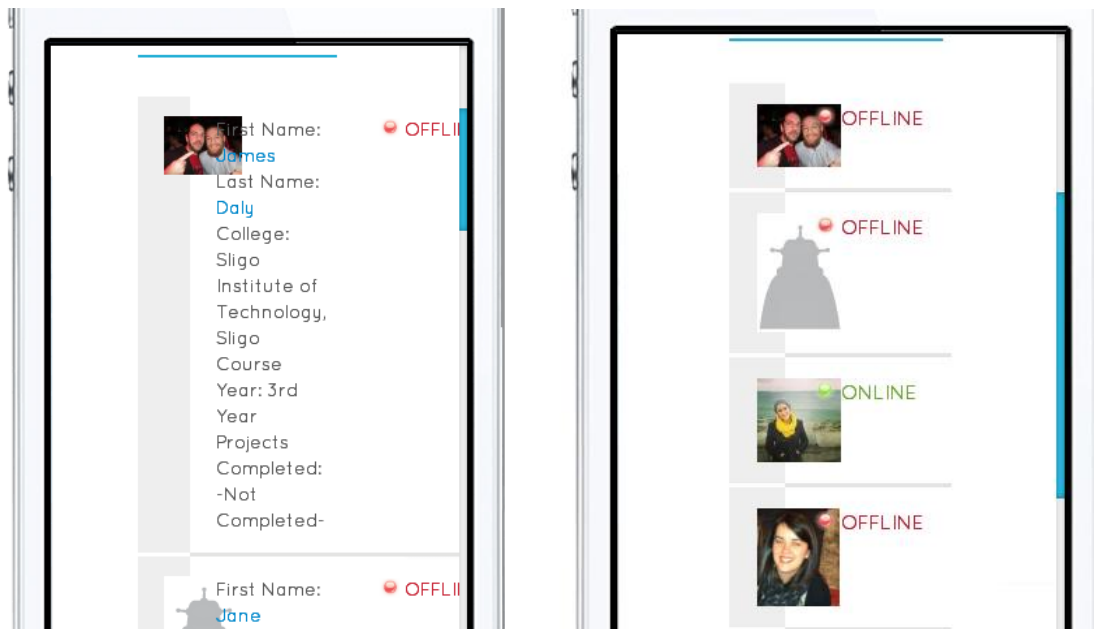
## Responsive Design

Throughout the project I was working continually on responsive design. I used Bootstraps responsive utilities such as the use of responsive menu/navbar and calling of classes such as .visible-phone. I tested the results on websites such as <http://www.isresponsive.com/#!> to see how it looked on different sized devices. I also used CSS using media queries to show/hide, resize, change background colour etc.

Bootstrap Navbar:



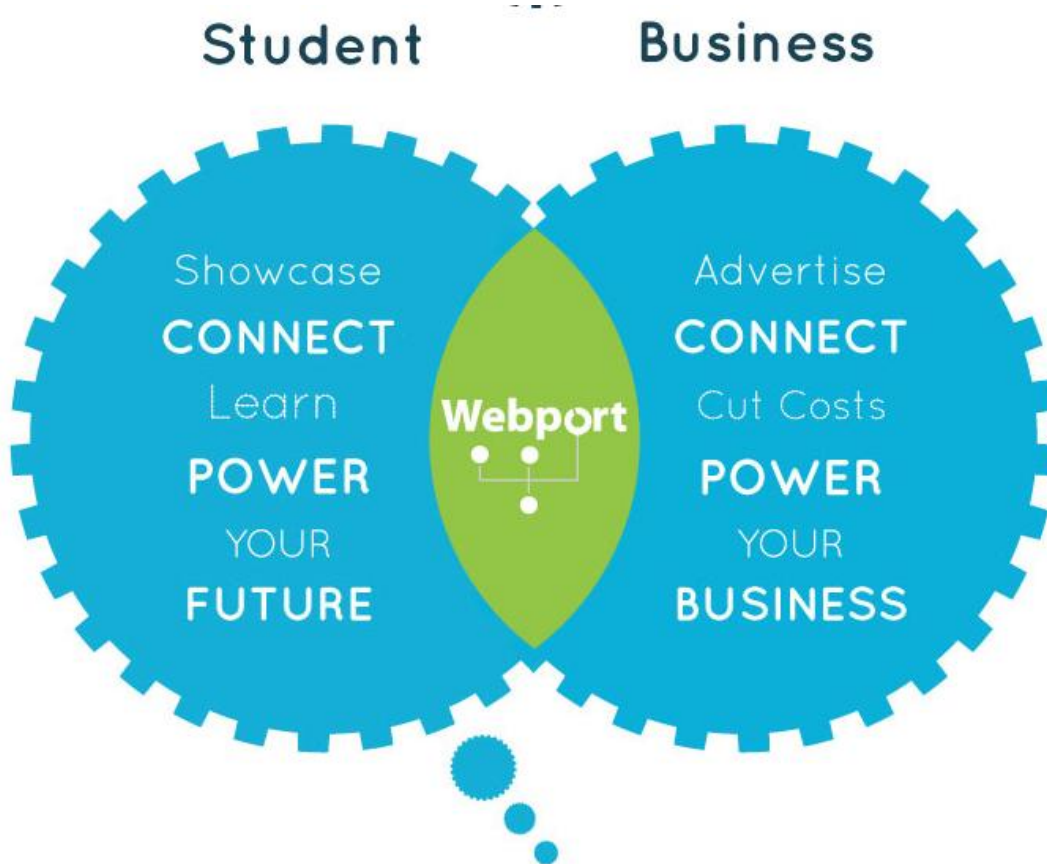
Simple Responsive Design Example:



## Digital Marketing

I designed visual imagery and slogans to aid digital marketing on the site.

Infographic:



## 4) Reflection

### 4.1) Problems encountered

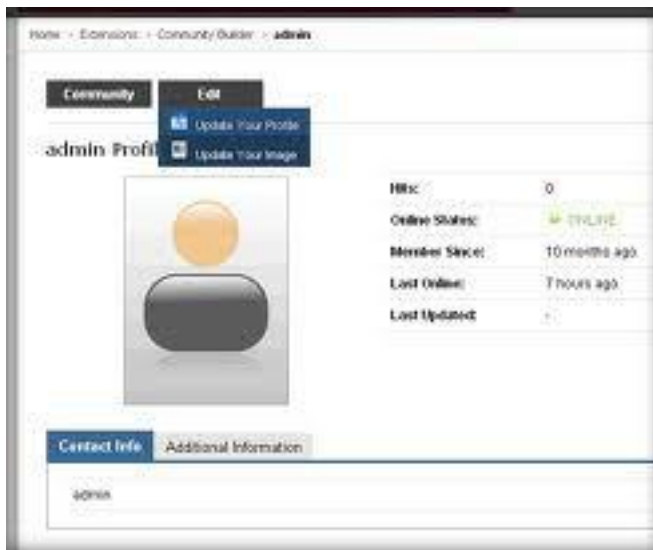
#### Hosting issues:

Once the site was put on a free hosting server and the template was installed I set about building the design and styling. After a short while it became obvious that there were issues with the host as the site was constantly crashing and going offline for hours at a time. This caused problems for me as I could not carry on with my work in this manner. It became apparent that this host did not support the most recent version of php. It also delayed me from being able to set up student profiles as the Community Builder extension required support for at least version 5. We decided to move to a new hosting service. Lianna transferred the site to a new paid hosting provider which solved these problems.

## Community Builder

Once community builder was installed it enabled me to set up student profiles. As the default layout and styling were extremely basic I wanted to completely redesign the layout. I planned to do this by doing a template override. Template overrides are now a feature in the latest version of Joomla but I soon realised that Community builder did not support template overrides. The other option I had was to edit the file in the backend but this was not an advisable option as it was not maintainable and would be vulnerable to being wiped in future updates. I overcame this by committing to the challenge of using purely CSS styling and Community Builder control panel configuration of layout and positioning to give the profile a new look.

Challenge:



Community Builder's core package is a commercial free product. There are many add-ons available to extend its functionality but the majority of these add-ons are paid extensions or subject to a paid subscription. As I had planned on adding extra features to the profile such as a photo gallery, I was limited in the resources I could use. I spent time trying to source a gallery plug-in that would enable the student to add different categories such as "website" or "logo's" therefore making it easier for the user/business to filter their browsing. Although I sourced one that carried this feature it was quite limited in what it could do, for example it did not provide a function for students to add a hyperlink to their images. The same goes for a lot of other features I would have liked to have added to the profile such as a profile completeness status and profile star ranking. The other issue I came up against countless times was that free add-ons I had planned to use were outdated and did not carry support for the newer versions of Community Builder or Joomla. For the features that I could not find an appropriate add-on for I overcame this by making use of the basic core fields that can be added to the profile such as providing a basic text tab to display links and by using a checkbox field for the skills picker.

## 4.2) What I learned

Now that our project is coming to an end I can see now more than ever the relevance and the thinking behind the final year project module. The idea of simulating a real life project, starting from

an idea on paper and developing this idea into a working product is the perfect environment to learn the skills you need to prepare you for real life experiences in your future career. This experience has helped me decide on the kind of career I would like to pursue in the near future which is in the area of design and front-end development.

I have learnt a great deal both in technical skills and in soft skills.

## **Technical**

During this project I gained an enormous amount of practical experience in learning and implementing the technical skills required to reach my objectives.

### **Joomla 3**

The experience I have gained in CMS development will no doubt stand to me in the future. Although I gained some basic knowledge of Joomla 2.5 through my CMS development module, it is greatly overshadowed by the experience I have gained using Joomla 3 to create webport. During this time I learned how to use Joomla to its full potential, gaining knowledge of features such as user groups and access levels along with building and implementing custom templates and learning a new way of writing CSS while incorporating responsive design using bootstrap. Along with this I think it is important to have an understanding of how to utilise and configure extensions to extend the functionality of your site. These skills will be hugely useful for me in the future.

### **CSS**

During the development of webport, part of my role as designer was to write CSS to style the interface of the site. Prior to this my knowledge of CSS was quite poor. By choice I decided to hand code the CSS rather than relying on software such as Dreamweaver to prompt me so that I could gain as much experience as I could and pick up speed as the project progressed. Looking back on the stylesheet I can easily pick out the code I wrote back in October as opposed to the style of coding I write now. I also gained knowledge of how to target and override default styles in Joomla and in extensions templates.

### **Responsive Design**

Learning Twitter Bootstrap CSS framework has been a positive experience and breakthrough for me when it comes to responsive design. Its ease of use and speed will be very helpful in the future. I have also learnt the art of adapting layouts to viewport sizes using CSS techniques

### **Self-directed Learning**

80% of what I've learnt for this project was down to self-guided learning. It is a skill in itself and is a valuable one. I've learnt to take the initiative in making use of resources.

### **Design**

I have learnt a lot of new techniques when it comes to designing graphics and wireframes. I have also learnt a huge amount of design theory in areas such as designing with a grid based approach, colour psychology, graphic design fundamentals, mobile app design, digital marketing with design

and logo design. I also spent time learning about user interface and user experience and the difference between them. I have become an avid blog follower on design blogs such as:

*UI vs UX: what's the difference?*

<http://www.webdesignerdepot.com/2012/06/ui-vs-ux-whats-the-difference/>

Design inspiration:

*20 beautifully designed smartphone apps*

<http://www.webdesignerdepot.com/2013/07/20-beautifully-designed-smartphone-apps/>

## Soft Skills

Throughout the project one of the most important things to maintain was good communication skills. I learned to stay in contact on a daily basis with other group members and voice my worries or questions without hesitation. Cooperation and collaboration was also very important and I learnt to work in close collaboration especially when working on the site alongside Lianna in Semester 2.

### 4.3) What I'd do differently

In general I am content with the choices I have made in this project and I have learnt so much about front-end development. Having said this, I do feel like an opportunity has been lost to gain some experience in backend development as I think this would also be very relevant and beneficial for me in the future. As I have already gained experience programming with C#, I feel gaining knowledge of php would have been a huge advantage. After researching the current job market and the skills often required, php seems to be emerging as the language of choice amongst web developers.

In hindsight, if I were to do this again I would have liked to have introduced myself to php from the beginning of semester one. Although I was preoccupied with learning the skills I needed for my role in webport, a little extra time spent on this would have left me in a better position for when our php module began in semester two and would also have given me a little more confidence facing into work placement.

## 5) Conclusion

In conclusion I am happy with how I performed during this project and I feel I have learnt a great deal. I think moving in the direction of front-end development was a positive for me and gave me the opportunity to gain valuable experience in this area. Now coming to the end of my degree this experience has enabled me to conclude that a career primarily in front-end design is what I will be seeking in the future.