

**CPEN 321 – Fall 2016**  
**Project Reflection Statement**

**Project Group:** Course Planner

We have learned a plethora of concepts through working on this project. We have witnessed firsthand the importance of adopting a lifecycle design model. We have also come to understand the crucial role that a strong management hierarchy plays in successful software development. We have greatly increased our ability to accurately estimate the time it takes to complete programming tasks.

**Solid Website Technical Skills**

We learned how to set up a web server, and send and get information from it. Specifically, we learned how to set up an amazon EC2 server, and use ssh/scp command to update information on the remote EC2 linux server. We learned to use phpmyadmin page panel to control the mySQL database on the server, and to get a free domain name. We learned the structure of mySQL database and how to use PHP to retrieve and update table entries of it. We also gained an understanding of web crawlers and used this method to populate our database with courses offered by UBC.

On the other hand, we learned how to make a good front end user interface. We knew a little bit html, css and javascript before, but we learned a lot more during the process of building this website application. We enhanced our understanding of css and javascript by fixing tons of bugs, and we finally learned how simple and convenient it is to use libraries (API) built by others like bootstrap and different kind of jQuery libraries.

We also learned how to fill the gaps among the server database, our UI codes and the libraries. We learned to use ajax functions to connects js functions with php functions so that the front end dynamic interaction could have effect on the server end database and vice versa. We spent time understanding the front end API and figured out to write a js interface to make it portable to our project.

**Soft Project Management Skills**

It turned out that we were using stage evolutionary project designing model. Due to the limited time and technical skills, our design was changed several times and finally we cut off some of our original primary scenarios.

In retrospect we recognize that there were many opportunities in which our development methods could have been improved. Our primary point of failure was in our time management. In the early stages of our product development we were unaware of the complexities of the tasks we set before ourselves and we needed to gain a better understanding both of our tasks and possible methods of achieving those tasks. We would also have benefitted greatly from a better base knowledge of the programming languages we used in creation of our project. A very specific change we would make to our development cycle in retrospect is we would have adopted using a calendar API much sooner than we actually did.

This would have allowed us to focus on features of our product that had to be either reduced or cut from the project entirely. These features would have better distinguished our product from other available products.