Matthew Hird
545366650
February 14, 2019
CSCI 311

Roles and Responsibilities

Strengths and Skills

I possess a number of strengths that will allow me to be successful in completing this project as an individual. Many of my skills and experiences are listed in Appendix A. The most important of these skills are my internal drive and motivation to complete something of substance, and my stubborn dedication to producing quality content. I also possess the willingness to go above and beyond the base requirements if I think doing so will allow me to learn useful skills that I can use in the future. I also take a lot of pride in my organizational skills. Up until relatively recently, I was putting very little thought into any sort of planning, scheduling, or organizing. Over the last year and a half, I have put a large amount of effort into slowly improving these skills, and I have continuously been testing out new strategies and methods for staying on top of all of my school tasks. These skills will go a long ways towards designing and implementing this website.

Another set of skills I possess is the creativity and problem solving skills required to work my way around (or through) technical roadblocks. I have the patience to both scour through the endless forums and documentation online in order to find the tools I need to implement my the code way I want, and to crawl through my own code in order to find the bugs and errors that are disrupting my project. If I do get stuck, I have a strong support system, as a couple of my good friends are professional developers who can help by directly helping me work through the block, or by pointing me towards quality resources that can answer my questions.

From a technical standpoint, I am fairly well rounded in the types of experiences and technologies I have worked with. I have developed a few static web pages with HTML and CSS that have contained a variety of simple features, like fixed top and side navigation bars, dropdown menus, and responsive text and images (all generated without HTML form or table features, and without any CSS/JavaScript frameworks). This previous experience, combined with the dynamic pages generating skills we are learning about so far in this course, as well as the knowledge I hope to gain through researching some web frameworks, should give the skills required to design a structurally and visually solid front end for my website.

Though I have never implemented and server side scripts for any webpages, I do have experience using many of the individual components needed to operate a web server. For a personal project, I have set a PostgreSQL server and populated it with ~10 tables and ~1000 data entries. Using a database connector library, I wrote Python scripts that could add or delete tables, and scripts to populate or update the data on the local server by reading csv files. I then wrote a separate Python application with a GUI that would query the database and use the results to display information to the user. I am also currently taking CSCI 370 (Databases), where I have been learning more about using semantic modelling to design a relational database schema that fits the intended application.

Finally, I have some experience in project analysis and design. I have previously taken CSCI 310 (Human Computer Interaction) and learned many skills and strategies for designing UX systems that are user focused. Also, I am currently taken CSCI 375 (Systems Analysis) where I am learning about and practicing the many stages of planning and running a development project. By implementing these strategies, I should be able to manage the scope and schedule of the project in order to have my website be complete within the required timeframe.

Learning Goals

I hope to learn a lot throughout the course of this project. Although the project has a limited scope, it provides an opportunity that is rarely offered in school: the chance to build a "complete" product. Most school projects and assignments involve building smaller components of a system, but we almost never get to put all of the pieces together. I also would like to become more comfortable integrating frameworks into my coding. Learning to use frameworks can cost a lot of time initially, but they can save huge amounts of time and effort once one knows what they are doing with them.

This project is providing me the opportunity to learn about and experience designing code with security in mind. In all computer science courses I have taken VIU previously, security has barely even been mentioned, nevermind being implemented. Considering the importance of secure code in the real world, I am excited to get some first hand experience in designing and writing secure code.

I am also excited to work with a number of different languages on a single project. I think learning how to effectively use different languages for different tasks is important, but the real challenge is figuring out how to interface the languages together. I also hope to learn more about designing websites from an organizational standpoint, as in which functionality and features should handle which responsibilities.

Appendix A: Personal Skills Inventory

Skills Inventory

Name	Matthew Hird
Role on team	Colour Coordinator
Course load (units)	18
Outside employment (hrs/wk)	0

In each of the following areas, please rate yourself on a scale of 1-4 relative to your CSCI 311 classmates.

4 = Skilled or experienced – likely well above average
3 = Reasonably skilled or experienced – likely above average
2 = Some skill or experience – likely below average
1 = Little or no experience – likely well below average

Programming Skills	Rating
JavaScript	2
HTML	2
CSS	2
PHP	2
C++	3
Other: Python, Kotlin	3

Operating Systems	Rating
Server Admin: Windows	2
Server Admin: Linux/Unix	3
Other	1

Database Systems	Rating
MS Access	1
MS SQL Server	1
Oracle	1
MySQL	1
Other: PostgreSQL	3

Multimedia Production	Rating
Photoshop Illustrator	1
Macromedia Flash	1
Other: GIMP	3

Analysis and Design Skills	Rating
Requirements Analysis	3
Interface Design	2
Flexibility and ability to deal with change and ambiguity	4
Ability to estimate task difficulty and time duration for completion	2

Business Skills	Rating
Public Speaking	2
Business Writing	3
Technical Writing	3
Leadership	2
Ability to Work Independently	4
Ability to Work in Teams	3
Project Management	3
Accommodating Different Viewpoints	3
Ability to Motivate Others	2
Ability to Give and Receive Constructive Feedback	3

Please list any other relevant skills
- Done some work in Python, Kotlin and PostgreSQL in free time - Have built simple static webpages with html and css - Setup simple video game servers on Windows - Setup offline PostgreSQL server on Linux - Currently taking CSCI 370 (Databases) - Enjoys both cats and cat photographs