March 31, 2017

The Sweet Spot Discount Golf

644 Main Street North

Moose Jaw, SK

S6H 3K4

Dear Carlo Berardi,

Subject: Proposal for the Completion of Web Based Point of Sale System

This proposal will address the request from The Sweet Spot Discount Golf to finish building and implement a Point of Sale (POS) system. The current Point of Sale web application is not yet fully functional. When completed our application will allow their store locations to process sales, accept trade-ins, process returns, and complete a daily cash out. In this proposal we will include background information about how current POS systems work, the topics of investigation with an outline of the current application, and a list of the current bugs. We will also include an outline of our qualifications, and provide a schedule for delivery of the application.

## Background Information

In the current market of POS systems there is are four key features that should be included. They are Sales Reporting, Customer Management, Inventory Management, and Employee Management (Guinn). The Sales Reporting will track all sales of items at each location, allow returns, and report on daily transactions. Currently the Customer Management, Inventory Management, and Employee Management is out of scope.

In the current system that The Sweet Spot uses they are being charged for every transaction. The current application is the same one that manages and completes their online sales through eBay. Because of the amount of in store transactions that are completed they are losing money having to pay for these additional transactions. Based on this information The Sweet Spot would like to make sure that the Sales aspect is fully functioning by the end date. The remainder of the items are on the wish list and potential further projects.

## Purpose Statement

We are to have a fully functional sales system as part of a POS system so that The Sweet Spot can utilize it in place of their current system that is charging them per transaction that is made. We will be defining what a POS system is, addressing the invoices so that they will include the required information, and the basics of managing the inventory. In the current application there will need to be investigation in regards to how it is operating, the items that will need to be updated, and the current bugs in the system. The application will utilize the technologies in web development, Asp.net programming, and MySQL. When this work is completed The Sweet Spot will be able to have a web based POS application that can handle the sales in both their locations.

## Feasibility

Using previous knowledge learned in the following classes, we are prepared to upgrade the currently used system.

* COMP 234 - Database
* COMP 215 - Internet Application Development 1
* COMP 235 - Internet Application Development 2
* COMP 214 - Project Management
* COMP 233 - Object Oriented Programming Concepts
* COMP 258 - Object Orientated Software Development

Through these classes, we have learned how to develop web applications and databases. By using the previous experience we gained in COMP 214, we learned how to properly schedule tasks, and how to stick to a schedule. After deciding what is going to be in scope, tasks are created, and are entered into a work breakdown structure. Each task is marked with two important identifiers. Color which describes the urgency and importance of the task. Colored pins are used on a board to help identify the amount of time that the task needs to have dedicated to it.

The scope of this project is to finish the transaction portion of the website. Building upon what is already there, we will have to change how items are added onto the transaction, add a way to have multiple trade-ins in a single transaction, proper taxes, and the finished invoice. Many of these features are half way implemented, and using our previous knowledge, we are going to finish the implementation. By working in class 6 hours a week, and an added 3 at home, there will be plenty of time to work on the project. To aid in the completion of it, contact with the client will be maintained to ensure the best possible results.

## Audience

The individuals that this project will be important for are as follows:

* Stake holders
* Professors
* The team that is working on the project

Each group of people will be looking for different elements that need to be present in the final project. For the stake holders, they will be looking to learn the scope of the project. What components they will be receiving in the final project. How we will improve upon the current software, and why they should approve of this project. Following the stake holders, the professors that will be reading the proposal. The important elements that they will be looking for here will relate to the work needed to complete the project. They will gain the information that they need by reading the project scope, the background, and the overall feasibility of the project. Lastly, those working on the project will refer to the proposal as a way to ensure that they are staying on track with what needs to be done. The proposal will help to define what is and what is not in scope, and allow for clearer goals.

## Topics to Investigate

1. Point of Sale
   1. Definition of POS
   2. Invoices
   3. Inventory management
2. The current program
   1. The current state of it
   2. What needs to be worked on
   3. How to enhance the current system
3. Current Bugs
   1. What is currently causing crashes
   2. How to fix the crashes
   3. Increase overall stability
4. Relevant Topics
   1. Website Development
   2. Asp.net Programming
   3. MySQL Development

**Point of Sale System**

We will need to research current point of sale systems to gain a better understanding, and definition of what they are. Our knowledge on the topic is currently limited, and based off of researching the current product in place. To further discuss what we will be researching, a key focus is what an invoice looks like, and what information should and should not be present on it. On the invoice, it will need to be flexible to handle the requirements that are set in place by the client. Along with that, a key point to research is inventory management. The POS system needs to handle inventory being removed, and added.

**The Current Program**

To better understand what it is that we need to work on, we will have to research the current system. First off, the current state of the program needs to be studied. Determining what is currently running, and what is not is important because that allows us to know what needs to be worked on. Moving from what needs to be worked on, we will need to look into how the existing project can be enhanced. This will be accomplished by researching how to optimize the code.

**Current Bugs**

The project as it stands now, has bugs that cause it to stop working. We will have to study the project to find where the bugs are, and what is causing them to trigger. Once the bugs are located, research to learn how to fix them will be needed. The project is currently unstable, and a key point that we need to research is how to make the project run more stable.

**Relevant Topics**

These topics are relevant due to the project being created using these programming languages, and methods. Research is not needed for these topics because the knowledge is already in place due to having multiple classes on them. The ability to use each topics programming language and methods has been well ingrained.