Software Development Proposal for Hip & Clavicle

February 16, 2023
Jacqueline Dover
Hip & Clavicle

Re: Software Proposal

Dear Ms. Dover,

We are a 3 person team of student developers at Lane Community College and would love to develop an alternative platform for your Etsy store. We are confident that we can provide you with an alternative to your current platform that is not only viable, but superior in many ways.

Over the course of the project, we will consult with you to get feedback on the design and features we implement to ensure that the site exceeds your needs as well as your customers'. Based on the work we've done since our initial conversations, these are the main features and functionality we are planning to implement for your site:

- A user friendly customer interface with intuitive search options and attractive product page layouts
- Integration with trusted payment and shipping gateways to ensure convenient and secure customer transactions
- An intuitive and customizable shopping cart to ensure a seamless checkout process
- An integrated message system for customers to inquire about the products you offer and the status of their orders
- An elegant seller interface to make it easier to add, edit, and remove your product listings

We are excited to get started building this custom solution for you and your online store. The team estimates work to be finished no later than **May 26th, 2023**. Our team is not chagrin for the labor on this project as an arrangement for school credit has been accepted in lieu. We want to hear from you as much as possible. Please don't think twice about contacting us any concerns, questions or requests.

Sincerely,
Michael Paulsen - paulsenm@my.lanecc.edu
Devin Freeman - freemand@my.lanecc.edu
Steven Brady - bradys@my.lanecc.edu

1. Project Overview

The goal of this project is to provide an attractive online store outlet that is controlled and moderated completely from within the business . This site will be geared primarily towards augmenting or hopefully replacing the existing Etsy store, as well as provide more control over product presentation, and business needs such as shipping integration, reminders, customer payment and tracking.

The following are requested features that have been discussed by our contact and one of our team members:

a. Online store (35 main products, several (hundreds) of colors for most products)
b. Order tracking (when the order was placed/is due/messages about the order/etc)
c. Shipping schedule (PitneyBowes C# Library)
d. Shipping integration (PitneyBowes C# Library)
e. Messaging system for customer communication
f. Newsletter/Mailing list/Blog

How our team is proposing to accomplish this is by building a web app for the business that will include a store front, with high quality images of her product that will be able to communicate with an administrator account in which the business is in charge of.

The client's side of the app will have access to the PitneyBowes shipping API, which will allow label creation, pickup scheduling, package tracking along with many possibilities that will be discussed with the client prior to implementation.

Stripe payment management will be integrated into the app to handle customer payments.

2. Deployment

The website will be built as an ASP.NET project that is hosted on Azure Data and Cloud services.

A Domain will be obtained via Namecheap, Go Daddy or a similar domain registrar depending on client's input and preference.

The following is a summary of the deployment details that have been decided at the time of proposal.

a. Main Backend: Microsoft Azure
b. Domain registrar: Namecheap (probably)
c. Payment: Stripe seems like the easiest to integrate, paypal may work too
d. Shipping: pirate ship (seems easier for development, might be more work for seller) shipstation (not lots of documentation on integration with non-established ecommerce platform)

3. Documentation

Documentation relating to connecting the business's various accounts with PitneyBowes, Stripe and other service providers will be included in double with one copy on a physical storage device (portable USB drive) as well as permanently linked within the administrator portal in the web app.

4. Estimate of Effort

a. Product catalog:

A user-friendly interface for browsing and searching products.

a. Product browsing and search -10 to 20 hours
b. Product details page - 12 to 24 hours
c. Product categories - 12 to 24 hours
d. Product ratings and reviews - 6 to 12 hours

b. Shopping cart:

A system for customers to store their selected products.

a. Adding items to the cart - 6 to 12 hours
b. Modifying cart items - 8 to 16 hours
c. Viewing cart contents - 6 to 12 hours

d. Calculating total cost of order - 4 to 8 hours

c. Checkout:

A checkout process allows customers to enter billing, shipping information, select payment methods, and place their order.

   a. Customer information capture (billing and shipping) - 12 to 24 hours
   b. Payment processing (PayPal or Stripe integration) - 8 to 16 hours
   c. Order confirmation page/email - 10 to 20 hours

d. Order management:

   a. Order tracking - 8 to 16 hours
   b. Order history - 6 to 12 hours
   c. Order status updates - 6 to 12 hours
   d. Invoicing and receipt generation - 6 to 12 hours

e. Shipping:

Shipping is tracked and managed using the Pitney-Bowes C-Sharp Library that connects to the official API.

   a. Order tracking - 8 to 16 hours
   b. Order history - 8 to 12 hours
   c. Order status updates - 10 to 12 hours
   d. Invoicing and receipt generation - 8 to 10 hours

f. Messaging system:

A system that allows customers to communicate with the store owner and receive updates about their orders

   a. Contact form - 4 to 8 hours
   b. Contact data management - 8 to 12 hours
   c. Promotions email manager - 8 to 16 hours

g. Admin panel:

a dashboard for store owners to manage their products, orders, customers, and other aspects of their store

   a. User management - 10 to 20 hours
   b. Product management - 10 to 20 hours

(including images and descriptions)
c. Order management - 12 to 24 hours
d. Reporting and analytics -12 to 24 hours

5. Timeframe and Workflow
a. Methodology/Mindset
a. We will approach this project with the 'agile' mindset, checking in frequently with the client at each stage of the project, or sprint.
b. We will get input from the client before starting each sprint in terms of the features and styling they're looking for. Once they are approved, we will implement and test the features outlined in the beginning of the sprint.
c. We will get feedback from the client at the end of each sprint to make sure the features and styling were implemented in the manner they were expecting.
b. Timeframe
a. Currently in the design phase, the team's estimated date for finishing the design phase is **March 20, 2023** at which time a video presentation will be available about the project.
b. Development will begin on **April 3, 2023**
c. The team has created and utilized the estimate of effort included in this contract to estimate that it will take between **218 and 436 hours** or roughly 4 - 8 weeks of 2 to 4 hour days per developer. As a reminder, this is an estimate and may not represent the actual hours that are put in on the project.

6. Cost Estimates

As this is a student project for Lane Community College, there will be no charges for time or labor on the part of the developers. Depending on the third party platforms chosen by the client for things like web hosting and payment processors, there will be other charges and terms as listed below.
a. Domain registrar
I. Domain registration will likely be through one of the domains already registered by the client on Namecheap at a cost of between 15 - 30 USD per year

b. Web Hosting
   I. Microsoft Azure - Azure has any number of options to fit your exact budgetary, processing and storage needs. While the very bare minimum is not likely to be sufficient for a site with any kind of consistent traffic, we have included for reference the bare minimum requirements the site would need and the cost to host that on azure. **See figure 1.** [^1]
   II. WinHost - 10 USD per month should be adequate, while 20 USD per month should be more than enough.
c. Payment processor
   a. Stripe - They charge $0.30 plus 2.9% per transaction - likely working out to $0.60 - $1.20 per transaction.
d. Shipping partner
   a. Most shipping partners charge close to what USPS charges, or a little less. Generally about 4 - 5 USD per order, which can be calculated and charged via Stripe.