Proposal

Chamberlain Gibson

Degree: Bachelor of Science

Major: Cybersecurity

Minor: Criminal Justice

Project Advisor: Professor Henderson

Expected Graduation Date: Spring 2024

Problem Statement

To give my client access to a website and cloud-based database that upholds a sophisticated level of security and usability to support the expansion of their business.

Project Description

My clients, Bobby and Narie Gibson, for their company, Rivers Rise, requested a prototype e-commerce website with a functioning cloud-based database to store their products. Rivers Rise produces custom wood and macramé pieces that are made specifically for their customers. The website will entail different tabs for the types of products, a business information page, a sign-in account page, and an admin dashboard.

Proposed Implementation Languages: Ruby on Rails, HTML, JavaScript

Libraries, Packages, Development Kits to be used in the proposed implementation languages:

- Devise

- Turbo

- Hotwire

- Tailwind CSS

- CarrierWave

- MiniMagick

- ImageProcessing

- Paperclip

- Capybara

- Stimulus

- Stripe

- PostgreSQL

- Pagy

- Brakeman

- Bundler-audit

- Fly.io

Additional Software/Equipment Needed: VMWare Virtual Machine

Personal Motivation

My education, character, and fundamental beliefs are all focused on helping anyone I can

to the best of my ability, particularly when it comes to developing a product for my family.

Outline of Future Research Efforts

A. Background Research

    a. Website Structures

        i. Website platforms for a small business.

        ii. Building a hypothetical website for clients to improve for future endeavors

        iii. Integrating familiar web-based programming languages.

    b. Database Structures

        i. Using PostgreSQL for the database to store the products.

        ii. PostgreSQL tutorials and practice.

        iii. PostgreSQL platform to connect to the website.

B. Website Development for Small Business

    a. The necessary laws and regulations to abide by for developing the website.

    b. The administrative access for the client to adjust the website by making announcements to customers or market a new product.

    c. Ensuring the functionality of each connected pages are properly configured.

    d. Maintaining a user-friendly website capabilities and security.

C. Database Development for Small Business

    a. The necessary laws and regulations to abide by for developing a database.

    b. The administrative access for the client to add products to the database.

    c. Populating the table in the database to the website.

    d. Store customer information from the sign-in page to the database.

Schedule

CSCI Senior Project	**Task:**	**Start Date:**	**End Date:**	**Completion:**
CSCI 497	Proposal Draft	**09/12/2022**	**02/29/2024**	**In Progress**
CSCI 497	Requirements Document Draft	**09/12/2022**	**02/29/2024**	**In Progress**
CSCI 498	Begin Initial Implementation/ Coding	**10/07/2022**	**02/29/2024**	**In Progress**
CSCI 498	Test Plan Draft	**10/07/2022**	**02/29/2024**	**In Progress**
Break from Senior Project				
CSCI 497	Final Proposal	**09/28/2023**	**02/29/2024**	**In Progress**
CSCI 497	Final Requirements Document	**09/12/2022**	**02/29/2024**	**In Progress**
CSCI 498	Final Test Plan	**11/28/2023**	**02/29/2024**	**In Progress**
CSCI 498	Final Preparations for	**03/01/2024**	**04/17/2024**	**In Progress**

	CSCI 499 Senior Project Defense			
CSCI 499	Senior Project Defense Final Report	**03/01/2024**	**04/17/2024**	**In Progress**

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