**Proposal** 

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Applied Computing: Business Concentration

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**Problem Statement** 

In my problem there exist small business owners that have created clothing brands but do not

have an online marketplace specifically for their niche. This is a problem because not having an

online marketplace for these business owners forces small businesses to rely mostly on social

media engagement to attract customers to their product. According to the organization Making

Science "Survey data showed that those who sell products on a marketplace make 38% more

ROI than those who just use their own website. Also, those who sell on two marketplaces

increase revenue by 120%" (2021). The solution will be to build an online marketplace that is for

small business clothing brand owners. The benefits of brands selling on marketplaces are brand

exposure, additional platforms to sell products and services on, and trust building by selling on

an open platform (Making Science, 2021). In conclusion, by building an online marketplace for

small business clothing brand owners will improve their discoverability and they will have a

platform that did not exist before. Without the implementation of this solution we will continue to

see individual clothing brands that can change the lives of the founder(s) and clients fail simply

because they do not have the discoverability to get noticed and they do not come from

backgrounds that can afford to pay for ads and marketers.

**Project Description** 

For Vendors: go to site, login, set up store, upload product, wait for sales

For Buyers: go to site, login(optional), browse vendors or products, add item to cart, checkout

## **Proposed Implementation Language(s):**

Javascript, Ruby, Node.js, SQL, PHP

Libraries, Packages, Development Kits, etc. to be used in in the proposed implementation languages(s) ::

Laravel, Ruby on Rails.

# Additional Software/Equipment Needed ........................:

A Computer capable of running code, Linux, Mac, or Windows OS.

# Personal Motivation 🍰

My personal motivation for this project is from my experience in sales and starting my own ecommerce start up selling custom designed keyboards. After doing this I noticed one of the largest niches for ecommerce which was clothing brands did not have a platform doing discoverability. From my experience I know how hard it is to scale, promote, and market your product with no investors or being the sole investor funding the brand & product. This prompted me to create an online marketplace specifically for small business clothing brands.

### Describe how this project will further student's knowledge in the field?

This project will further my knowledge in the field by providing me with hands-on experiene developing, designing, and coding a web app.

# Outline of Future Research Efforts

Conduct both primary research and secondary research

- Interview users from my target audience to gain qualitative data
- Research trends in ecommerce to make sure my product is usable
- Research the UX/UI designs that make online marketplaces successful.
- Research what packages and languages to implement

# Describes how the student will complete his/her project. What deliverables can be expected?

- Login Protocol
- Shopping Cart Protocol
- Check out Protocol
- Browsing Feature
- Search Query
- Database backend

# Schedule 📆 🔮

### **CSCI 497**

• Nov 18, 2022 - Proposal and requirements document

### **CSCI 498**

- February 18, 2023 Test Plan
- April 18, 2023 Most deliverables complete

## **CSCI 499**

• Nov 18, 2023 - Defense documentation