

HOLY ANGEL UNIVERSITY
Object-Oriented Programming
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Title:

Holy Angel University Marketplace (HAUM):
Empowering Students through a User-Friendly
Platform for Buying and Selling

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Project's Introduction

COVID-19 has resulted in a boom in the marketplace and rapid digital transformation in the midst of slowing economic activity. As lockdowns became the new normal, firms and consumers gradually "went digital," providing and acquiring more products and services online, boosting the marketplace share of global retail trade from 14% in 2019 to almost 17% in 2020 (UNCTAD, 2021). According to the Carousell Recommerce Index (2021), the Philippines is the most receptive market in Greater Southeast Asia to secondhand items, with 58% of Filipino online consumers most comfortable buying secondhand apparel and 75% of Filipino merchants choosing to sell secondhand apparel (Bigtas, 2021).

In fact, some students have turned to Facebook networks to exchange or sell their commodities, which range from food and clothing to household appliances, gadgets, and even bicycles (Dino, 2020). Allen Luzon, a 19-year-old BS Psychology student in his second year at the University of Baguio, chose to sell his prized book collection in order to acquire enough money to purchase a tablet for his online studies. Due to a lack of finances, his parents are unable to support his studies (Virtuz, 2020).

Every year, Holy Angel University students graduate or move into a higher year of their academic journey. Which leaves them with textbooks, computers, school supplies, and more products. This is why most of these students sell their old products. The decision of selling their old products serves multiple purposes, the most common reason for selling their old product is to make an extra income.

Selling stuff you no longer use or need is a terrific method to make some additional money that you would not have otherwise (Big Tex Pawn, 2020). It can be a practical way to make some money whether they have upgraded to newer models or no longer require the item.

Not only the seller of the products will benefit from selling their old products, but the purchaser as well will also benefit from buying a second-hand product, by buying it at a lower price. Secondhand goods are typically less expensive than new equivalents, and there is increasing consumer demand for environmentally friendly and sustainable products. Online marketplaces serve to streamline the second-hand sector by bringing shoppers and sellers together in a single online environment. As a result, consumers have greater access to it. With the added benefit of lower prices and enhanced sustainability (Basedo Corp.,2023).

An online marketplace is a website or mobile application that benefits buyers and sellers. Marketplaces often provide many benefits to buyers in order to exist. The following are some of the advantages that marketplaces employ to attract clients. Ease of use, improved discovery/comparability. Lower pricing, higher quality, one-of-a-kind products or experiences, and a specialized online auction platform for buying and selling unique items (Farley,2019).

Recognizing the considerable benefits of this practice, a group of research programmers is attempting to develop a marketplace on the Holy Angel University campus. Since they are students at Holy Angel University, they chose

this as their target user. The research programmers aim to build a marketplace that will provide a user-friendly and efficient platform for students to buy and sell used or new goods within their campus community, called HAUM (Holy Angel University Marketplace).

To summarize, the HAUM initiative is definitely important, considering the constant influx of used products created by Holy Angel University students' regular academic progressions. Students can augment their income by selling unneeded items on the HAUM marketplace, while others can get much-needed items at bargain prices. As a result, HAUM is a substantial and easily understood program that provides several benefits to the entire university community.

Project's Objectives

The research programmers aim to create a user-friendly student marketplace for Holy Angel University (HAU) students. An Angelite student is able to obtain second hand or affordable uniforms and books through this type of service, as well as a dormitory for other individuals who live far from the University, as this feature allows them to easily discover suitable accommodation options. One of the unique features of this Holy Angel University Marketplace (HAUM) is the provision of email verification prior to registration to ensure that they are truly Angelites. This means they can obtain buying and selling experience, as well as engage with other Holy Angel University students. This sense of Angelite community-based marketplace is also beneficial for those with similar interests. Finally, having this type of marketplace will be beneficial to HAU students because it is both cost-efficient. It will strengthen connections and help to make the school (Holy Angel University) a more positive and supportive environment for the user.

- (1) **Creating an Accessible Student Marketplace.** This marketplace was created exclusively for HAU students, and it could be able to help them with selling some of their used school supplies, such as textbooks or uniforms. Having this kind of setup is beneficial for those who are unable to purchase new clothing and textbooks since this program allows them to look for their specific desired needs for their specific courses at a friendly price.

(2) **Sign in and sign out.** With this type of set up sign in and sign out, the programmer made it much simpler for customers to log in without any hassle free and view the website or dashboard they desire.

(3) **User-friendly website.** This market place is a user-friendly website because it has been well-organized, and customers can simply browse for the information they're looking for about the product. This allows shoppers to move about and conduct any searches they want without any problem.

(4) **Building a customizable font.** Having a customizable dashboard allows users to construct their own dashboard and storefront. Having this type of setup in the marketplace is also entertaining because our program provides layout templates from which users may design or build the combination they desire on their storefront.

Application Features and Description

- **Product Listings: Quick Search and Filter**

- The "Quick Search and Filter" feature in the product listings application enables users to easily find their desired products and refine their search results swiftly. This user-friendly functionality empowers shoppers to efficiently navigate through a vast catalog of items, saving time and enhancing their overall shopping experience.

Key Features:

- 1. Rapid Search:** Users can enter keywords, product names, or specific attributes in the search bar, and the application promptly displays relevant products in real-time.
- 2. Filter Options:** The feature provides various filter options, allowing users to narrow down their search results based on price, category, brand, color, size, and other essential criteria. This helps them discover products that precisely match their preferences.
- 3. Sorting Capabilities:** Users can sort search results based on popularity, price, relevance, or customer ratings, giving them greater control over how products are displayed.

4. Enhanced User Experience: With a seamless and intuitive search and filter interface, users can effortlessly explore the product listings, helping them quickly find products that meet their needs.

5. Improved Discoverability: This feature ensures that users can efficiently browse through a diverse range of products, promoting product discovery and potential cross-selling opportunities.

- Overall, the **"Quick Search and Filter"** feature in the product listings application streamlines the shopping process, enabling users to discover their desired products with ease and efficiency, leading to higher customer satisfaction and engagement.
- **Sign-In and Sign-Up**
 - The sign-in and sign-up application feature provides users with a seamless and secure way to access and interact with the program.
 - Sign-up: This feature allows new users to create an account on the platform by providing their necessary information, such as username, email, password, and any additional details required. It may also include an email verification to ensure the authenticity of the user's account.

- Sign-in: Once users have registered, the sign-in feature enables them to access their accounts by providing their registered credentials, typically a combination of email and password. This process ensures that only authorized users can access the platform and their personalized content or features.
- Overall, the sign-in and sign-up feature is a crucial component of any application that requires user accounts, as it enhances security, personalization, and data management for both the users and the service provider.

- **Vendor Dashboard**

- This is where vendors can see what they posted on sale and edit information about how to contact them.

- **Customizable Storefront**

- The customizable storefront application feature in a marketplace website allows sellers to personalize and tailor their individual online storefronts to reflect their brand, products, and unique identity. It offers a user-friendly interface that enables sellers to showcase their products in a visually appealing and cohesive

manner, enhancing the overall shopping experience for potential customers.

Key features of the customizable storefront application may include:

1. **Customization**- Buyers and Sellers can layout templates by selecting colors, and custom fonts

2. **Product list**: Sellers can highlight product descriptions, and specifications. fonts ↗

3. **Product Filters**: Customers can easily filter products based on various criteria, making it simpler for them to find what they are looking for within the storefront.

- The customizable storefront application feature empowers sellers to establish a distinct online presence, fostering trust and loyalty among customers while facilitating a more seamless and personalized shopping journey. This feature is a significant advantage for both sellers and buyers, as it promotes uniqueness, creativity, and a tailored experience within the broader marketplace ecosystem.

- **Buyer and Seller Email Verification:** A process to verify the identity of users, which builds trust among participants in the marketplace and reduces the likelihood of scams.
- **Reporting:** Users can report suspicious or inappropriate activities. *contact VS*
- **User Profile** *→ name = profile*

The user profile feature in a marketplace website provides a personalized and comprehensive space for individual users to manage their account information, preferences, and activities within the platform. It serves as a central hub where users can showcase their identity, track their transactions, and engage with the marketplace community.

Key Components:

- 1. Personal Information:** Users can update and maintain their personal details, including name, contact information, location, and profile picture.
- 2. Seller Profile:** For sellers, the profile may include additional sections to showcase their store, products, and policies.

- Overall, the user profile feature enhances the marketplace experience by giving users control over their interactions and facilitating trust and credibility within the community.

Methods/Approach

The research programmers will be using different software that could help them create the online marketing HAU. To elucidate, the software that they would be using would be, namely, (MDN. 2023, July 3), Pycharm, which is a programming software application created for the Python programming language, wherein they would use it for their main code. Consequently, they will also be using Django, which is a high-level Python web framework that allows rapid development of secure and maintainable websites and takes care of much of the hassle of web development (Databricks, n.d.). These two tools are great for easy navigation in areas like debugging, code analysis and completion, and many more. Besides that, the research programmers would also be using templates from the internet for the website design. For easier access to checking and debugging the main code and program, they would be using Github, which is a platform for collaboration that lets other people work together on a project by sharing their code, making the process much simpler in different ways. (Juviler, J., 2022.)

Work Plan

OBJECTIVE	ACTIVITIES	TIME FRAME	EXPECTED OUTPUT
Plan the project (scope and requirements)	<ul style="list-style-type: none"> Brainstorming Identify the essential feature and functionalities needed for the project Create a detailed project plan and timeline Present the project plan 	1 week (Week 6- Prelim Exam)	<p>Comprehensive project scope and requirements</p> <p>Detailed project plan</p> <p>Have the project plan approved</p>
Develop product listing	<ul style="list-style-type: none"> Design the user interface Implement backend logic Conduct testing to ensure functionality 	1 week (Week 7)	Functional product listing
Sign in and sign up functionality	<ul style="list-style-type: none"> Develop user interface for sign in and sign up Develop backend logic for user registration, authentication and account management 	1 week (Week 8)	<p>Functional sign in and sign up</p> <p>Secure user authentication system</p>

	<ul style="list-style-type: none"> • Integrate features like email verification 		
Build vendor dashboard and customizable storefront	<ul style="list-style-type: none"> • Design user friendly vendor dashboard • Implement customizable storefront • Provide layout templates 	1 Week (Week 9)	<p>Vendor dashboard to enable seller manage their listing efficiently\</p> <p>Customizable storefronts for sellers to showcase their products and brand.</p>
Protocols and user profile	<ul style="list-style-type: none"> • Integrate Mail verification and profile setup process • Implement data privacy protocols 	1 Week (Week 10)	<p>Functional user profile section for students to manage their account</p> <p>Functional security options</p>
Finalization of the project	<ul style="list-style-type: none"> • Conduct a thorough review and testing of all marketplace features and functionalities. • Fix any issues that may arise 	Remaining time onwards (Week 11-Midterms)	Fully functional Holy Angel University Marketplace

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