**GWUSales: A Quick and Efficient Buy & Sell Application**

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Abstract

All three of us, the creators of this project, are international students. Each of us suffered greatly when first arriving to Washington D.C; none of us knew where to procure furniture, supplies and old goods. Most of our options were a long distance away. IKEA is over a 30-minute drive, Target is about 25 minutes by metro, and Staples is a long distance away too. Similarly, we found ourselves constantly burdened when we needed to rid ourselves of unused items. For our hands-on project, we thought deeply about something we could all have used as international students decided we would end this problem for future users.

GWUSales is an app set on eradicating this problem. By being able to browse for pre-owned items on campus, GWUSales enables the user to circumvent the difficulties usually associated with both moving in and moving out. By providing a straightforward application with a simple interface that shows all items available on campus, the process of acquiring or disposing of anything can be made simple, localized and efficient. Whether the user is looking for an apartment or trying to get rid of an old bicycle, GWUSales makes it extremely easy. GWUSales is currently in development as an Android mobile application. For the future , an iOS and browser-based application will be released. Furthermore, users will be able to buy premium features for a small monthly fee. Our goal is for buyers to have rooms full of goods and sellers to have empty storage closets.

Introduction

This project aims to streamline acquisition of pre-owned goods and, at the same time, make getting rid of items easier and quicker. While many alternatives may exist, (See “Related Project Works” section) we believe the best answer is to tap into the local community rather than reach out. By local community, we are referring to the student body. GWUSales - as described in the name - is targeted towards GWU Students. Later renditions of the application may be diversified to incorporate other universities and communities, but the version presented is built solely for students of the George Washington University.

The rationale for our application is as follows:

Through sales and purchases on campus, users can

1. Be relieved of transporting/shipping their goods long-distance due to campus-by-campus localization
2. Form relationships with fellow members of the student body
3. Save money and time on procuring products
4. Rid themselves of items they have lying around (And, in some cases, turn them into quick money)
5. Rest assured the person they are dealing with is
   1. Not anonymous (Heightened safety in comparison to anonymous e-commerce sites)
   2. A member of the same community as them (Required to be a student to sell)

Registration is not required to browse items for sale within the application. Anybody can see what is for sale and where it is. The exact location of the seller is hidden so as to protect the privacy of the seller. The initial screen upon opening the application is seen in Figure 1. 13016818_1003513519685324_1768644894_o.png

If the user wants to sell an item, they must register. In order to keep sellers a part of the campus, the application checks if the user has a “.gwu” email address or not. If the user does not have the required email address, they will not be allowed to register. This countermeasure is meant to ensure that the sellers are a part of the George Washington University community. Sellers will be able to chose their price, or if the item is for free. The seller interface can be seen in Figure 2. Ads will be sorted by location, so a seller will be barred from selling if their GPS/Location Services are disabled.

In order to purchase, the buyer does not need to register. Of course, this means that the buyer need not be a member of the college community. They will be able to access the seller’s contact information via the ad (If the seller decides to display it). The reason why buyers are not required to register is to give the sellers more scope. By allowing more people to view what the sellers have for sale, the likelihood of a quick sale is increased. Furthermore, the seller is able to screen buyers on his or her own accord. If the buyer does not seem like a legitimate buyer, the seller need not sell. 

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Related Project Works

There are, in fact, several projects that carry out a similar function to GWUSales. These include eBay, Craigslist, Carrousel and Poshmark. While all these are selling apps, none of these feature localization by college campus. There is, in reality, no application *exactly* like GWUSales. The closest would be the “GWU Free & For Sale” Facebook Page, which served as an inspiration for the application.

While these applications are similar in their primary functions, ours is vastly different in terms of execution. Firstly, ours is localized by campus and requires a school-issued email address to register. Furthermore, ours allows 

for more cooperation between buyer and seller. Figure 2 will demonstrate the difference in terms of progression from application to application. EBay requires the sellers and buyers to both create an account and conduct all the interaction throguh eBay. Only very rarely do the two parties contact each other; the buyer contacts eBay which contacts the seller and vice versa. 

Craigslist is the most similar to GWUSales in terms of how the program works. In Craigslist, someone makes an account, then an advertisement, and anyone can browse and buy. This means that the seller must register to Craigslist and the buyer does not need to. GWUSales is somewhat similar, but instead of the seller having to be a part of the app, they have to be a part of the university. Anybody can sell on Craigslist, but to sell on GWUSales, you must be a member of The George Washington University (And eventually, any supported university). This adds a layer of safety and assurance to the purchase, which GWUSales’ competitors are simply lacking.

Analysis & Solutions

In order to detail the solution and analyze the application it is important to pay attention to the need. Our app seeks to fill a void: Intra-campus advertisements and sale. We have left our sales interface ambiguous; students can sell whatever they want whenever they want. The problem is the lack of an easy, independent way to sell or buy used products. The solution is our application. We address almost all the issues that are present in the existing methods. Currently, the “GWU Free & For Sale” page is not a formal application and may be a bit cumbersome to use at times. We address this issue by making our interface visual scrolling reel, where users can just scroll on and on and see products for sale.

While we hope our product will fix all the problems, there is leeway for improvement. While we will make a positive impact on our society, we must watch out for our application being used in a negative way. We must draft a terms and conditions for our applications so as to bar users from selling illegal products. Any user in violation of these terms and conditions would be banned permanently from the application. Furthermore, it is important to focus on cybersecurity so that the privacy of buyers and sellers are better conserved.

Our project brings about many solutions to the institutional void that is the campus based used-goods market. While we hope to solve all of them, the above analysis shows a couple issues that may come about. However, as mentioned above, we do have solutions to these issues and we will hopefully implement them in a future version of our application.

Summary & Future

Currently, the application only supports sales upto $200, and 5 sales per month by each account. The reason for this is because we want to involve a paid aspect for our application. In order to sell anything greater than $200, users will need to upgrade their account to a “GWUSales Express” account. We have not implemented this feature yet, but it will make an appearance in a future update. Our projected price is $3.99/month. By implementing a monthly fee, it allows users who require a heavier amount of sales to do so, while enabling us to make some revenue.

Furthermore, there currently is no search function. As millennials, we seem to be extremely “Scroll happy”, meaning that to pass time we scroll for hours and hours. For this reason, we have designed our application in this way. Scrolling down reveals more and more advertisements. However, we intend to implement a search function in the future, allowing users to find specific items with great ease.

Facebook began in Harvard University, and eventually spread like wildfire around the world. We are attempting to adopt a similar strategy. Currently, our application is designed for use only by members of the George Washington University. In the future, we plan to allow our application to be adopted by other universities and educational institutions. We really feel that there is great demand for our application, especially in universities that are situated away from all urban conveniences. The social media application YikYak uses geolocation to determine what university campus the user is on. We want to incorporate a similar sort of geolocation tool that allows the app to detect which university the user is in, and localizes sale to that campus. Furthermore, we aim to incorporate social media into our app. After registering with their university-issued email addresses, we want to allow our users to attach their Facebook accounts to their GWUSales account.

One more feature we want to implement is product customization. We can add different parameters that depend on the type of item. For example, a user who is selling a car may be prompted to enter its VIN number or the number of miles . Similarly, a user who is selling clothes may be prompted to enter the size and fit of the item. We believe this could provide the users with a better than what they have right now.

By providing a safe, efficient and clean environment for members of the student body to buy and sell, GWUSales can be of great service to all members of the student body of the George Washington University (And perhaps other universities in the future). We aim to ameliorate the community of the student body in campuses all around, and we are confident our application will be extremely helpful in this mission.

Source Code

https://github.com/makhanov/GWSales\_demo1