Project Proposal

Haohu Shen (30063099) Wang Juwei (30053278) Lan Jin(30078919)

CPSC 471 - Database Management System

Sept 28th, 2019

Introduction

Definitions

Our project is about creating a **platform** for all **UCalgary members** with **valid** UCID to sell to, purchase from and be able to negotiate with other **UCalgary members** for all second-hand merchandise.

Summary of the problem

The problem came out when we observed that when students in UCalgary have needs to purchase some second-hand textbooks, they have limited ways to access the relative resources and the efficiency of consignment is sometimes pretty low.

Another problem is that all resources about second-hand goods, no matter their business is online or $\underline{\mathsf{B\&M}}^{[1]}$, are scattered, hard-to-find and maintained by few people.

Also, some people may find solutions such as <u>Kijiji</u> is a good option, but it still has some potential risks since sellers/buyers in such third party platforms are not verified as UC students.

Summarize the solution

Thus, our solution is making an online website for tradings of second-hand goods that integrates all currently available resources in UCalgary.

Motivation

Our goal is to create an environment for all UCalgary members by enriching the forms of current business in all UC second-hand stores. Furthermore, people in UofC can take it as a chance to build their communities and culture.

The format of rest of proposal will be split into 5 sections, including **Problem Definition**, **proposed Solution**, **Motivation**, **Conclusion** and **References**.

Problem Definition

What is the history of the problem?

Sometimes people have needs to sell their used stuff since they don't need them anymore but they do not just throw them to trash bins because they think it is a waste, especially for students who will graduate and leave the campus soon. Meanwhile sometimes people have needs to buy used stuff since they think it can save them a lot of money, especially in the case that some brand-new textbooks are too expensive.

Why is this problem interesting?

Because since online shopping is more popular and accessible than ever and it can be done through multiple channels at pretty much any time of the day or night. However, as with any spending decision, your budget must always be your guide, especially if you are a student.

For us **DINOS**, we can spend an average of \$507 on back-to-school shopping, the money is cost even before the first day of school. Buying new backpacks, shoes and suppliers add up every year. Therefore, instead of buying brand new items, students tend to look for deals in online second-hand marketplaces.

On the other hand, from a seller's perspective, if a UC student wants to sell a used book or some notes, they can consign their books in $\underline{\text{Student Union}}^{[2]}$, but what if the student wants to sell some E-notes even code snippet for CPSC courses and hope target clients can see their information as early as possible?

When and why does the problem occur?

Unfortunately, the disadvantages of existing second-hand shopping can lead to negative experiences and significantly impact our bank account and it occurs for a long time.

- First of all, University of Calgary Bookstore can only offer very limited choices. You can only buy second-hand books in U of C Bookstore and the price is firm(and of course, still too expensive for students, even though the edition of some books is outdated). If students want to buy second-hand items other than books or hunt for bargains, or even electronic books or electronic course notes, they can only choose online shopping.
- Secondly, you don't know who you're dealing with.
 It is really hard and time consuming to tell is this person trying to steal your money or personal information when all you are trying to do is buy some used electronics. Kijiji, Canada's largest online second-hand

site, thousands of scam victims are still trying to get their money back until this day, and the number of victims is going fast annually. You always put your money or even yourself in danger when it comes with online shopping since "On the Internet, nobody knows you're a dog".

Is the problem already solved? What is done now?

Apparently, the problem is not solved yet, and because choices are so **limited**, it is sometimes hard to attract potential users, which has become another problem.

Are there similar systems or solutions to the one you propose? If so, reference and very briefly explain them?

For books, <u>books2go</u> is a good example of selling/buying books for university students since its resources is connected by students from all other universities/colleges in Canada.

Are there possible improvements to current solutions?

A rating system to calculate the reputation of a seller will be convenient for the clients to see if the seller is reliable and no-fraud is involved.

Proposed Solution

What does this project achieve?

A project will help UC students buy/sell their used things in a much convenient and efficient way.

What will the project produce?

A website will be provided to promote the environment for students to get the cheapest textbook online. We will create a perfect database and store a ton of extended sales information in our database. So, the customers can find it more convenient to see the prices of textbooks from an updating list.

Relative detail

More Book information will be accessible when going into the book profile, including the book edition, the book age, name, authors and whether the owner can provide his/her notes for the courses.

In addition, our website will be built in a more reliable way because we can guarantee all our users are campus students/staffs. The users need to sign up by their campus email and UCID then retrieve the security code.

Thus, for example, our textbooks are more likely to relate to the contexts that the professors given in their lectures.

Motivation

Why do we need your solution?

For example, in order to maintain the books/paper/notes for consignment, Students' Union have their place to store all these stuff, we all know that to maintain and categorize them is time-consuming and painful and they don't accept the responsibility for lost or stolen book. Our solution is transferring these responsibilities to sellers themselves and we also don't need to maintain real spaces, which can save a lot of budgets for UCalgary.

What makes your project unique?

Almost every Canadian university has their own bookstore for buying/selling used textbooks. But it is rare to see an online trading website endorsed by the campus buying/selling all kinds of used goods other than just books.

Emphasize what your project contributes or achieves

- · Saving time for buyers and sellers.
- Saving budgets to maintain since we just play the role of middlemen.
- Since we still need some members to maintain our website(frontend, backend...), so related jobs can be
 offered to students who would like to gain the experience.

Conclusion

Summary of the project including the problem, motivation, and proposed solution.

Problem

 The trading mode of used goods inside UCalgary currently is tedious, not attractive and needs to be updated.

Motivation

We help UCalgary saving money and meanwhile boost the campus market of second-hand goods.

Solution

 An online website for UC members only where UC members can trade freely and it is endorsed by the campus.

Timeline

Description of the task	Due date
A detailed ERD and all the related assumptions	October 11st
The initial (logical) relational model	October 21st
Initial draft design	November 4th

References

- [1] B&M, or Brick and mortar, referred from https://en.wikipedia.org/wiki/Brick and mortar
- [2] Book consignment in Students' Union, referred from https://www.su.ucalgary.ca/programs-services/book-consignment/