SW Engineering
CSC648/848 Section 02
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Web Project

Team 08

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Milestone 1

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History Table		
Date	**Revision**	**Done**

1. Executive Summary

Gator Trader

Gator Trader is a website designed exclusively for the students of San Francisco State University to be able to buy and sell items. The basic idea is that user whom are SFSU student would post their items with pictures to buy and sell.

Even though there are quite many websites that has the same mechanism, “Gator Trader” has three unique Features that distinguish it to other competitors on the market.

1. Reducing the fraudulent possibility. Since Gator Trader is been offered exclusively to SFSU students, users should be currently enrolled in SFSU. Therefore, users need to login using their SFSU IDs and this would reduce the possibility of fraudulent activity.
2. Cost of shipping as well as time to deliver. Moreover, most of the websites would charge customers for shipping. Also, it might take a week for users to receive their items. Since, all the users in Gator Trader are SFSU students, there would be no cost of shipping and the delivery time would be much quicker. As a result, students can see each other face to face conveniently on campus.
3. Benefiting buyers and sellers at the same time. As an example, at some point, when students might no longer require having a book for a specific class after completing a semester, they can sell that book to other students who are going to enroll for that subject in the upcoming semester. As a result, this would be beneficial for both sellers and buyers since sellers can get rid of the book and the buyer would be able to access to that book for the lower price than the market.

“Gator Trader” is being developed by a team of six people as a part of their project for Software Engineering. The team lead is Rebecca, technical lead is Farbod, and other members are Jeremy, Kai, Krunal and Kyle.

2. USE CASES

GUEST USER

Bob is a student of San Francisco State University. He was curious when he heard about a buy and sell application meant for students who attended SFSU. After Bob opens Gator Trader for the first time, he has the ability to browse through ITEMs that are on sale. After seeing an ITEM he wants to purchase, only then is he prompted to login, or register since this would be his first time. Being register allows him access to post and sell ITEMs to his liking. Bob decides he does not want to register yet, and decides that he rather put something up for sale instead. He goes to the sell section of the site and proceeds to sell his I-clicker. Before he is allowed to officially list an ITEM for sale, he is prompted to register, since he still has not registered. This time, Bob decides to register and posts his very first listing.

Registered SELLER

Sarah is a student of San Francisco State University and a regular SELLER of ITEMs on Gator Trader. She wants to put her dress on sale. She clicks the sell button and is instructed to add title, description, and up to four pictures among other types of data. Before she posts her dress, she is prompted to sign in verify it's her. Once it's officially posted, she looks through her profile to check her previous postings to see if anyone has bought her ITEMs.

Registered BUYER

John is also a student of San Francisco State University who is a frequent BUYER of ITEMs listed on Gator Trader. He frequently checks the site to see if there are any new postings of books for his desired classes. John can single out the selection of ITEMs by changing categories from books to electronics to clothes. So when John is in need of new shoes or chargers for his smart phone, he can easily switch categories with a single button. Before he confirms his purchase, he is prompted to contact the SELLER, and he makes an appointment with the SELLER in the Cesar Chavez building.

ADMINistration

Kyle is an ADMIN of Gator Trader. He is responsible for building the application and occasionally logs on to see if there are any bugs or problems with the USERs. As Kyle browses the ITEMs in all the different categories, he notices a few ITEMs that are inappropriate. He proceeds to delete the posts, and notifies the SELLER why the post was deleted. A ban will be given to the SELLERs who post inappropriate listings. Kyle continues to search the site and notices a bug in the selling section that doesn't let the SELLER put up more than 3 pictures, when it clearly says SELLERs are allowed to post 4. He flags the bug to let the developers know where the issue occurred.

3. DATA DEFINITIONS

USER: Any person who accesses Gator Trader. This includes all GUESTs, SELLERs, BUYERs, and ADMINs.

GUEST: An unregistered USER. A GUEST can view ITEMs for sale, but cannot sell or buy.

SELLER: A registered USER who has posted one or more ITEMs to be sold. A SELLER has a USERId, password, email.

BUYER: A registered USER who is making a purchase of an ITEM. A BUYER has a USERId, password, email.

ADMIN: A registered USER who has exclusive access to the database where ITEMs or USERs can be modified or deleted. The ADMIN has the ability to ban a USER for misconduct. An ADMIN has a USERId, password, email.

ITEM: A categorized object to be sold. An ITEM has, for example, a price, category, SELLER, img1, img2, img3, img4, description, title.

4. FUNCTIONAL SPECS

1. GUESTs shall have access to browse website.
2. GUESTs shall register if they want access to buying and selling.
3. GUESTs shall switch between categories while browsing.
4. GUESTs shall have access to use the search bar.
5. GUESTs shall put items they might want to buy into the shopping cart.
6. Registered USERs shall have access to all privileges of guests and also the ability to purchase items.
7. Registered USERs shall have access to selling items.
8. Registered USERs shall be prompted to input pictures for items to sell.
9. Registered USERs shall be prompted to input title and description for items to sell.
10. Registered USERs shall be able to contact SELLERS in order to arrange a purchase.
11. Registered USERs shall see previous items bought/sold.
12. ADMINs shall take down postings that are deemed inappropriate.
13. ADMINs shall ban accounts that use the site against school policy.
14. ITEMs shall have titles, descriptions, prices, and images.
15. ITEMs shall be categorized to enable searching.

5. NON FUNCTIONAL SPECS

1. Application shall be developed using class provided LAMP stack
2. Application shall be developed using pre-approved set of SW development and collaborative tools provided in the class. Any other tools or frameworks must be be explicitly approved by Anthony Souza on a case by case basis.
3. Application shall be hosted and deployed on Amazon Web Services as specified in the class
4. Application shall be optimized for standard desktop/laptop browsers, and must render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome.
5. Application shall have responsive UI code so it can be adequately rendered on mobile devices but no mobile native app is to be developed
6. Data shall be stored in the MySQL database on the class server in the team's account
7. Application shall be served from the team's account
8. No more than 50 concurrent USERs shall be accessing the application at any time
9. Privacy of USERs shall be protected and all privacy policies will be appropriately communicated to the USERs.
10. The language used shall be English.
11. Application shall be very easy to use and intuitive. No prior training shall be required to use the website.
12. Google analytics shall be added
13. Messaging between USERs shall be done only by class approved methods to avoid issues of security with e-mail services.
14. Pay functionality (how to pay for goods and services) shall not be implemented.
15. Site security: basic best practices shall be applied (as covered in the class)
16. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
17. The website shall prominently display the following text on all pages "SFSU Software Engineering Project, Spring 2017. For Demonstration Only". (Important so as to not confuse this with a real application).

6. COMPETITIVE ANALYSIS

Feature	letgo	OfferUp	Half.com	Carousell	Gator Trader
Text Search	+	+	++	+	+
Browsing	+	+	++	+	++
USER Interface	+	+	+	+	+
Shopping Cart	+	+	+	+	+
Extensive Distribution	+	+	++	+	+

Our goal for this site is to make it USER friendly. When it comes to Gator Trader, the luxury is getting to meet up with someone on campus when it is most convenient for both users involved in the transaction and getting the ITEM within a reasonable amount of time, instead of having to wait half a week or sometimes even longer. Furthermore, the only framework we will be using is CakePHP which has most of the components needed to build an application besides workbench and etc., unlike Half.com which gives you options for its API which makes it a little bit more tricky to navigate through. And our application will have ITEMs similar or the same from other sites but more USER friendly because we will make it so you can use it on a laptop (Mac/PC). Meanwhile, there are dozens of applications just like

the one we are building but our has the convenience factor students selling and buying from other students so they know they cannot jack up the prices because then no student will buy their ITEM which will not profit them, so it's all reasonable pricing options and it's easy access for the USER to get the ITEM(s). The four competitive applications researched all have the features of text search, browsing and shopping cart that are extremely handy but what makes our application better is that browsing will be easier for the USER. Like we've said previously, the lowest price will show up first instead of the USER having to do an even more advanced search to find a better deal that is intermixed with other ITEMs. Basically, our application will have subcategories that make it USER friendly as well as appealing for consumers to buy ITEMs from their fellow local people/students.

Background on Competitive Products

1) letgo

letgo	Gator Trader
-User can easily upload items with 30 seconds -Products come at subsidized rates -Shows your history -An app that you can buy and sell items within your neighborhood -No percentage, commission or transaction fees for the listings -is the latest version of 1.9.3 for Android 4.1	-API key would most likely be in PHP -The registered member has the option of buying or selling to other users locally

2) OfferUp

OfferUp	Gator Trader
-The platforms used are versatile: iOS, Android -Users ability to build up reputation -Great for local buyers and sellers -Hybrid between craigslist, ebay and instagram -Upload a picture and be verified through that process -All communication is done through the app so fake emails or numbers aren't needed for safety precautions	-Everything sold is local

3) Half.com

Half.com	Gator Trader
-Has the integration effect of barcode scanning, which allows users to scan the barcodes for the item needed -With the barcode scanning, the best deals are listed like Amazon -has over 80 million active listings with more than 700,00 sellers -Uses the "Buying Wizard" function shows the lowest price as well as any shipping discounts -"quality rating" is disclosed to buyers before they place there order -allows buyers to know the condition of the purchase as well as a CD, if it were to be available with the book -showcases the day your product will reach you, the seller, feedback, some comments, as well as the price and where the item is being shipped from (ex: which state)	-Latest editions available to students -For example, once you are done with the book, you can sell it to someone else on the app -only active listings that are needed for classes at SFSU

4) Carousell

Carousell	Gator Trader
-shows where the user can get the cheapest item as well as when selling it suggests the highest price -Has barcode scanning -Uses GPS tracking tech to give local results before the rest -Can chat with sellers about their items posted before buying -Has a camera function -Trading option for other items -Can join groups that are similar to what the seller is selling for a better profit -In person transactions and handlings	-The convenience of meeting up on campus to receive the item instead of the hassle of shipping and delivery

7. HIGH LEVEL ARCHITECTURE

PHP FRAMEWORK

- CakePHP

VERSION CONTROL

- Git
- GitHub

WEB SERVICE

- Linux
- Apache
- MySql with Workbench
- PHP

WEB DEVELOPMENT

- HTML/CSS
- Foundation
- jQuery ?
- JavaScript ?

APIs

- Google Maps
- Google Analytics
- Google ADMIN Reports ?
- Google CustomSearch ?

IDE

- NetBeans

BROWSERS SUPPORTED

- Google Chrome
- Safari
- Internet Explorer
- Mozilla Firefox

8. TEAM

Rebecca Stankus
Team Lead and Database ADMIN

Farbod
CTO and Backend Developer

Kai
Documentation and Backend Developer

Kyle
Chief Spokesperson and Backend Developer

Krunal
Documentation and UI Developer

Jeremy
Git/GitHub Admin and UI Developer

9. CHECKLIST

- Team decided on basic means of communications
  DONE
- Team found a time slot to meet outside of the class
  DONE
- CTO chosen and working out well so far
  DONE
- Github master chosen
  DONE
- Team ready and able to use the chosen framework
  ON TRACK
- Skills of each team member defined and known to all
  DONE
- Team lead ensured that all team members read the final M1 and agree/understand it before submission
  DONE