

Milestone One

Initial Proposal

Team 06

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Submitted to-

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1. Executive Summary

This project requires a website specifically for SFSU students to buy and sell products.

The need of this website comes from three sources:

- International students need to sell their equipment before they graduate.
- New books are too expensive for most of the students and used books may be a better choice.
- SFSU students need a reliable third party tool to buy and sell their stuff safely and quickly.

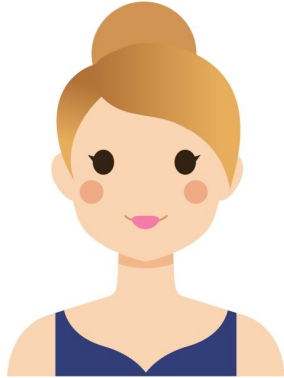
This project's initial concept for this website including:

- It is specifically for SFSU students
- Has pick up spots inside of school
- Easy search options (e.g search books by subjects)
- Rating and User review for seller
- No need to login for browsing until the users have decided to sell or buy

Our initial design concept is building a buy and sell website only for SFSU students, in order to recycle and help SFSU students to save money. All the buying and selling websites or applications on the market are wide open to the society which is less efficient and not safe enough for most of the college students. Some drawbacks include how far away the pick up spot is and how expensive the products are. So, this SFSU buy and sell website will cover these drawbacks and that's why we are building a new platform for SFSU students to help them to succeed in their college lives.

2. Personae and main Use Cases

a. Persona: Mary



- A female SFSU student
- A non-STEM major student
- Know some basic internet browsing skills like using search tool, shopping online and so on.
- Wants to make money from selling used books

Goals and Scenarios:

- Wants to sell her used books after the end of this semester.
- Wants to sell by third party platform because she has no contacts to sell her used books.

Use Cases

- Mary is an Art student at SFSU. She understands the basic functionalities of the website, but she has some difficulty selling her art stationeries. She has already signed up on the SFSU BUY & SELL site, but she is confused by the selling process. She doesn't know which step she is currently at and how many more steps she needs to post her items on the selling list. She looks up the guide which is posted at the bottom of the header and the content shows her how to sell her stuff step by step.

b. Persona: John



- A male SFSU student
- Familiar with internet browsing skills
- A STEM major student
- Want to buy books at a low price

Goals and scenarios:

- Wants to buy books for upcoming semester
- Doesn't want to spend too much money buying new books
- Wants to use categorized search tools for easy filtering of items

Use Cases

- John is a CS student at SFSU. He understands the basic functionalities of the website. He wants to buy some CS books for the next semester. Thus, he uses the easy search by subjects function and gets the options of desired book from different sellers with different prices. Then he chooses to buy the book from the seller who is selling cheapest.
- When he decides to buy the books, he will be redirected to register or login page in order to log into his account before he completes the checkout process.

3. List of main data items and entities

The data items and entities attached to them includes:

- Users (Buyer/Sellers/Admin)
 - SFSU ID of user
 - Name of user
 - Phone of user
 - Address of user
 - Email of user
 - Type of user (buyer/seller)
- Products
 - ID of product
 - Image of product
 - Categories of products
 1. Books and stationary
 2. Merchandise
 3. Furniture
 4. Electronics
 5. Sports and Gym accessories
 6. Events Passes
 - Details of product
 - Price of product
 - Type of product (new/refurbished)
 - Address of product
 - Pick up spot

4. Initial list of functional requirements

1. Non-registered user shall be able to see the following points:
2. User shall not be asked to login / sign up
3. User shall Browse on the website
4. User shall search for the products
5. User shall select the products from the product categories
6. User shall be able to access the photos of the product
7. Compare the price of the product with multiple sellers
8. User shall add the product to the "Cart"

9. *Registered users* will have benefits of all the above 8 points.
10. User shall proceed to checkout and purchase the product
11. User can shall decide the pickup spot and pickup time
12. User shall be able to add product for selling on the website
13. User can be a buyer / seller
14. Buyer can rate / write reviews of the seller if purchased product from the same user

15. *Admin* shall have the right of approving the products for sell
16. Admin shall not have the authority of changing the content of the product, but can request the seller before approving for sale.

5. List of non-functional requirements

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0 (some may be provided in the class, some may be chosen by the student team but all tools and servers have to be approved by class CTO).
2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of two major browsers.
3. Selected application functions must render well on mobile devices.
4. Data shall be stored in the team's chosen database technology on the team's deployment server.
5. No more than 50 concurrent users shall be accessing the application at any time.
6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
7. The language used shall be English.
8. Application shall be very easy to use and intuitive.
9. Google analytics shall be added.
10. No email clients shall be allowed.
11. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.
12. Site security: basic best practices shall be applied (as covered in the class).
13. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development.
14. The website shall prominently display the following exact text on all pages "SFSU SoftwareEngineering Project CSC 648-848, Fall 2019. For Demonstration Only"

at the top of the WWW page. (Important so as to not confuse this with a real application).

6. Competitive analysis

	SFSU Bookstore	Craigslist	Amazon Book	Our product
Text searching	+	+	+	+
Shopping cart	+	-	+	+
Categories filter	+	+	++	++
Register	-	+	-	+
Create Post	-	+	-	+
Seller Rating	-	-	+	++
Searching by Classes	+	-	-	+
Buy and sell directly	-	+	-	++
Pick up locations	-	-	+	++

7. High-level system architecture and technologies used

Below is a list of the technologies used in Team 06's software stack:

Server Host: AWS 1vCPU 2 GB RAM

Operating System: Ubuntu

Database: MySQL

Web Server: NGINX 1.12.2

Server-Side Language: JavaScript

Additional Technologies :

Web Framework: Bootstrap

IDE: VS Code, IntelliJ

Web Analytics: Google Analytics

SASS

8. Team and roles

Manish Patil, Team Lead

Poulomi, Github Master, Backend Developer

Thomas Tran, Backend Lead

Jinan Huang, Frontend Lead

Zihao Wu, Frontend Developer

Ha Phuong Tran, Frontend Developer

9. Checklist

Github master chosen (Done)

Github organized (Done)

Team decided and agreed together on using the listed SW tools and deployment server (Done)

Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on learning and practicing (On track)

Creating a persona and use cases (done)

Creating a database model (on track)

Having the idea of the product (on track)

Adding functions and features to the product (on track)

Milestone 0 (done)