Software Engineering CSC648/848 Fall 2020
The Gator Store
Team #2

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History Table

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Executive Summary

Gator Store is the latest and greatest new store to sell items among San Francisco State University students and faculty. Gator Store offers the fun of making money without the fees, and with an added layer of security of making sure that the users are verified. All members of the platform are going to have to provide a SFSU email to make sure that they are indeed SFSU students or faculty. Gator Store administrators will need to approve the advertisement to make sure it meets the laws and regulations making sure nothing illegal is being sold on the website. The motivation behind Gator Store is that students that do not have a safe place where they can shop freely for books, and other items that would otherwise need to be bought for a lot more money elsewhere. It is important that students have a way to safely communicate together on a platform that makes sure all it's members are verified through SFSU emails.

Gator Store will include a feature where a student can search for a book or an item being sold using the course that it was used in and/or the professor that taught that course. This convenience feature will make students much more likely to use the app making sure that the searching criteria is well defined so that a student can look for a course's material quickly and effectively. A security feature that Gator Store offers is making sure that all incoming users need to be checked and verified to have an SFSU email. SFSU revokes email access as soon as the student or faculty member leaves the University, which makes this way of verifying the students and faculty reliable.

Team 2 is the most dedicated and hardworking team in CSC 648 for the Fall 2020 semester. It is our goal to come up with an app that is tailored for the needs and requests of students and faculty at the University. We took every suggestion and comment seriously and based on that we had gone ahead to create an app that would be best serving the needs of SFSU students and faculty. We are a team of talented individuals who are striving to beat our competition. Team 2 is a dedicated set of hand picked engineers that are working to come up with the best app that will be the hub of all university students to be able to come and meet each other to exchange items and save everyone money that way.

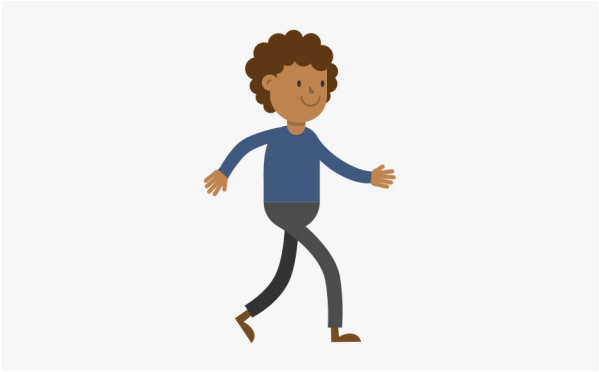
2. Personae and Use Cases

Sally ● Characteristics ○ First semester at SFSU ○ Majoring in Communications ● Goals ○ To get straight A's ● Skills ○ Beginner programmer, learns on spare time ○ Strong communication skills ● Pain Points ○ Not having enough time to pursue her other interests	

Joe ● Characteristics ○ Junior at SFSU ○ Math Major ● Goals ○ To build his Resume ○ To score an internship ● Skills ○ Great hands on learner ○ Can solve math equations on the fly ○ Has no idea how to program ● Pain Points ○ Very shy in interviews	

Matt

- Characteristics
  - Computer Science Major
  - Natural Leader
- Goals
  - To create a website for his school (SFSU) to make buying and selling books easier
  - To make sure his website is safe and secure for users
- Skills
  - Great database skills
  - Efficient coder, specializes in Javascript
  - Can build a computer
- Pain Points
  - Very shy and would not want face to face contact with his users
  - Would prefer to solve problems over the web



Professor Fox, Ph. D.

- Characteristics
  - Business Professor at SFSU
  - Passionate about teaching his students to the best of his abilities
- Goals
  - Submit a newer edition of his textbook
- Skills
  - Writing tips and tricks for his students
- Pain Points
  - Not good with a computer

Use Cases

1. Sally is excited to start her first semester at SFSU. She goes to the Student Store and sees a line going out the door. Sally is a busy student and does not have time to wait so she goes onto The Gator Store. She looks up her classes by Professor and finds her class. Then she tries to buy a book, but is directed to creating an account. Sally creates an account and then is able to buy her textbooks from a student on campus after setting a meeting point with them. She feels safe by setting the meeting point at the Library.

2. Joe walks past the bookstore and sees the never ending line and laughs. He goes on his phone and logs onto his account at The Gator Store. Joe remembers the time before The Gator Store existed and doesn't like to dwell in dark places. He quickly looks up his courses by their class numbers and finds a bunch of different ones. He then adds the professor's name with the class number and pinpoints the book he needs. He buys his book and meets with the seller at school.

3. Matt logs onto The Gator Store through his administrator account and reviews the website for any malicious content. He makes sure unregistered users have not been able to purchase anything or contact the sellers. Matt checks the newest editions to his website that students or professors may have submitted. The school year has just started and he has a busy checklist to go through. He sees his website is doing well and has many new users. All SFSU students of course, he prioritized student emails in the registration process.

4. Professor Fox wants to sell his newer edition class book to his students on The Gator Store. He logs into his account and goes to his class section. Then he posts his newest edition of his class book on the website. This edition can now be bought. The professor makes sure he posted in the right section for his different classes. He then logs out and again checks a normal unregistered user can also see it but can't buy it unless they're confirmed to be SFSU students. He wouldn't want a non SFSU student to take all of his copies for his students.

3. List of main data items and entities

1. Unregistered user
    1.1. Can browse and search the website without login or registration.
    1.2. An unregistered user can see all posts.
2. Registered user
    2.1. Can buy, sell, or exchange items on the website.
    2.2. Needs to register or log in before posting anything on the site.
    2.3. Registered user shall be an Admin or a Member.
3. Admin
    3.1. Has access to all item listings on the website
    3.2. Can verify/approve listings before they are posted, can report any illegal or inappropriate activity on the site.
    3.3. Needs to register or log in to have access.
4. Database of items (Posts)
    4.1. Overall list of items available for sale or exchange, sorted into different categories.
    4.2. Each listing shall have an image of the product being offered.
    4.3. A post shall be public or private.
    4.4. A public post shall be visible to unregistered users and registered users.
    4.5. A private post shall be visible for the creator of that post only.
5. Categories
    5.1. Each item listing will be placed into an appropriate category for easy browsing/searching.
    5.2. Categories shall be managed by admins to ensure proper placement of item listings.
6. Messaging
    6.1. Shall be the only point of contact between all registered users.
    6.2. No personal information shall be shared.
    6.3. A message shall be one way from buyer to seller.
    6.4. Recipient must be the seller.

4. Initial list of functional requirements

1. Unregistered users
    1.1. Users shall be able to browse the home page
    1.2. Users shall be able to search for the product by name and/or class number and/or Professor's name
    1.3. Users shall be able to register for an account
    1.4. Users shall be able to view the product details
    1.5. Users shall be able to see public posts

2. Registered users
    2.1. Users shall be able to login
    2.2. Users shall be able to sign out
    2.3. Users shall provide their San Francisco State email as part of registration
    2.4. Users shall be able to contact the seller
    2.5. Users shall be able to respond back to a message from a potential buyer
    2.6. Users shall be able to report to the administrator about any illegal activity
    2.7. Users shall be able to modify their profile
    2.8. Users shall be a faculty member or a student

3. Admin
    3.1. Admin shall be able to delete inappropriate posts
    3.2. Admin shall be able to block, disable and enable any user accounts
    3.3. Admin shall be able to see listing request and approve/disapprove those requests

5. List of non-functional requirements

High-level non-functional specifications (how the app is delivered and other constraints) that MUST be adhered to

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. All or selected application functions must render well on mobile devices
4. Data shall be stored in the database 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 (no localization needed)
8. Application shall be very easy to use and intuitive
9. Application should follow established architecture patterns
10. Application code and its repository shall be easy to inspect and maintain
11. Google analytics shall be used
12. No e-mail clients shall be allowed. Interested users can only message to sellers via in-site messaging. One round of messaging (from user to seller) is enough for this application
13. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.
14. Site security: basic best practices shall be applied (as covered in the class) for main data items
15. Media formats shall be standard as used in the market today
16. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
17. The application UI (WWW and mobile) shall prominently display the following exact text on all pages "SFSU Software Engineering Project CSC 648-848, Fall 2020. For Demonstration Only" at the top of the WWW page. (Important so as to not confuse this with a real application).

6.Competitive analysis

Features	Facebook Market	Amazon	Ebay	SFSU Book store	The Gator Store
Search by SFSU Class				✔	✔
Direct contact to Seller	✔	✔	✔		✔
Restricted to only SFSU students and faculty					✔
Set restrictions on who can see items					✔
Price negotiation	✔		✔		✔
Item exchange					✔

What makes The Gator Store different from other the other competition on the market like Amazon, Ebay, Facebook Marketplace, and SFSU bookstore was that The Gator Store was built and designed on the idea of providing a services that allows San Francisco State University students and faculty to buy, sell, or exchange goods for a very cheap price. In comparison to our competitors, The Gator store will offer many of the key features that are offered by our competitors like being able to have direct contact with the seller, but also will have features that are exclusive to the Gator Store that will create a unique experience. For example, The Gator Store will only allow San Francisco State University affiliates to be able to buy, sell, or exchange

items on the websites, the university is widely considered a commuter school so by making The Gator Store exclusive to San Francisco State University we help build a better sense of community and safely with our users. Users of The Gator Store will be able to search items by categories and by SFSU Class and Professors.

7. **Backend languages/Frameworks:**
   - SQL for queries and database operations.
   - Javascript 1.8.5
   - NodeJs 14.9.0 (runtime environment)
   - ExpressJS 14.17.1 (Server)
   - **Database:**
     - MySQL 8.0.21

Frontend languages/Frameworks:
   - HTML.
   - CSS.
   - Javascript 1.8.5
   - Bootstrap 4.5.2

Tools:
   - Visual Studio Code 1.48
   - Chrome inspection tools (85.0.4183.102) ^

Systems for development:
   - MacOS (UNIX)
   - Windows

System for deployment:
   - Ubuntu 20.04.1 (Linux)

Supported browsers:
   - Firefox (80.0.1) ^
   - Chrome (85.0.4183.102) ^

Deployment platform:
   - AWS EC2 instance.

8. **Team and roles:**

Student Name	Student Email	GitHub Username	Role
Giovann Fox	gfox@mail.sfsu.edu	giovannfox	Team Lead / Backend Lead
Beatriz Ribeiro	bribeiro1@mail.sfsu.edu	beatrizmribeiro	Frontend Lead
Ikenna Eke	ieke@mail.sfsu.edu	Ikenna-Eke	Backend Member
Jessica Serrano	jserrano5@mail.sfsu.edu	jserrano5	Frontend Member
Ramy Fekry	rfekry@mail.sfsu.edu	Ramy1951	Github Master

9. Checklist

1. So far all team members are engaged and attending ZOOM sessions when required
   DONE

2. Team found a time slot to meet outside of the class
   DONE

3. Back end, Front end elads and Github master chosen
   DONE

4. Team decided and agreed together on using the listed SW tools and deployment server
   DONE

5. 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
   DONE

6. Team lead ensured that all team members read the final M1 and agree/understand it before submission
   DONE

7. Github organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)
   DONE