

# SW Engineering CSC648/848 Spring 2022

## GatorBay

### Team 6

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Backend Lead: Michael Davichick

Backend Member: William Rattan

Frontend Lead: Michael Wang

GitHub Master: Michael Almeda

### Milestone 1

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## 1. Executive Summary

San Francisco State University is located in the most ideal place with very comfortable weather year round. SFSU is famous for being located in the Bay which is one of the most visited spots in the country by tourists. It is also famous for being only a stone's throw away from the world's tech hub Silicon Valley and fostering an environment which a student can feel comfortable and therefore more able to learn. One of the greatest unfortunate downsides of attending a University surrounded by some of the best minds this world has to offer is the cost of Attendance. The average college student attending has student loans and credit card bills. Students are looking for any way to help reduce their financial burden while attending SFSU in any way they can. The leading cause of student financial debt at SFSU are the required books and electronics needed for attendance and furniture for new students.

Thanks to the ingenious thinking from team 6 those debt ridden students will have their wishes answered. Gator Bay is a web app that would allow students to purchase books, electronics, and furniture directly from students and professors. Many professors actually create books for their own curriculum and now, thanks to Gator Bay, can bypass the student store. In doing so the professor can offer the new book at a reduced price. In many cases the student will have to pay nothing due to Gator Bay's exchange option.

Many students at SFSU have piles of old books/electronics/furniture but wonder if they have enough gas in their car to last the week. With Gator Bay those students will wonder no more. Professors who genuinely want to help their students' financial burden will have another tool in their arsenal. This app will also help with the University's overall graduation rate due to the fact now students will have the ability to afford membership. With the help of Gator Bay everyone comes out a winner.

## 2. Personae and main Use Cases

### a. Lisa - Student at SFSU



- About Lisa:
  - Full time student
  - Limited budget
  - Lives at home
- Goals and scenarios:
  - Lisa is on a limited budget and needs new books for her classes
  - She has an excess of books from previous classes and is looking for other students to exchange books with.

b. Alex - Student at SFSU



- About Alex:
  - Lives on campus
  - Part time student
  - Works two jobs
- Goals and scenario:
  - Be able to balance work and school to graduate with a Bachelor's Degree on time.
  - First year at SFSU

c. Samantha - Professor at SFSU



- About Samantha:
  - Is a senior professor at SFSU
  - Has written own book for class
  - Chair of her department
- Goals and scenario:
  - She is considered a residential expert in her field of work and has often written books for the class she teaches. To help out her students he offers a 10% discount.

d. John - Admin of application



- About John:
  - Graduated from SFSU with a computer science degree
  - Created a social media app for his senior project
  - Very attentive to detail
- Goals and scenario:
  - From his past project experiences, John understands the importance of moderating content of social media.
  - As not only an admin but an employee of the application, it's very important to John that nothing offensive gets posted that may drive away investors.

### 3. Main Use Cases:

- Selling a product

As a senior Professor, Samantha has written many books for his students. She noticed that when She sells through the book store the price would be greatly increased leaving some students not having the ability to purchase a new book. Professor Samantha decided this year to sell the book herself and in turn give the students a discount.

- Buying a product

Being a new student living at SFSU Alex is already on a tight budget. Upon arrival Alex notices he requires furniture for his dorm room and electronics. Now, thanks to *GatorBay*, Alex will be able to obtain both at a low cost and locally.

- Exchanging a product

Lisa has just started her junior year at SFSU. She has bought several books for her previous classes that are no longer of use. She needs new books for her classes but is on a tight budget. She logs onto *GatorBay* and sees that another student has posted asking for another student to exchange books with them. Lisa is able to check the details of the exchange and sees that she owns one of the books that the poster is looking for while the poster is also looking for a book that Lisa owns. Lisa contacts the other student for an exchange of books and they are instructed to meet at a safe location, the SFSU Library. Lisa was able to obtain a new book for his class and get rid of an old one without spending a dime.

- Reviewing a post

A newly graduated student, John has just landed the first job of his career as an admin of the newly created *GatorBay*. From his past experiences of creating a social media app, John understands the importance of monitoring posts prior to them being in the public eye. Excited and eager to start his day, John logs into his employee admin account and sorts through the list of posts awaiting approval. He soon



discovers one post that was redirecting users to a fraudulent site and immediately rejects the post, ensuring the site is safe for all users to enjoy.

List of Main data items and entities -data glossary/description:

- a. Product - A product serves as a placeholder for all items sold on the site.  
There are as follows:
  - i. Books
  - ii. Electronics
  - iii. Furniture
- b. Unregistered User - Unregistered users are able to browse posts but are required to log in / register when attempting to purchase, exchange or sell.
- c. Registered User - Registered users can not only browse but post sell orders, purchase and exchange. Contact information regarding the poster is only visible to registered users as a safety precaution.
- d. Admin - can do everything a Registered User can do and can approve or delete posts from other Registered Users.
- e. Buy - Purchase products that Registered Users post.
- f. Sale - A transaction between two Registered Users.
- g. Exchange - Exchange products that Registered Users post.

Initial list of functional requirements

- 1. Unregistered: browse, create account, login, search
- 2. Registered: inherit everything unregistered users have plus buy, sale, exchange, post, delete own account, name. Select drop off location from library, Cesar Chavez student center, or SFSU police headquarters. Select time of exchange, input SFSU ID.
- 3. Admin: inherit everything registered users have plus the right to post information online, ban users, verify, post, and if needed take down posts.
- 4. Frontend: nav-bar navigation panel, drop down selection, search bar, post creation, post deletion
  - Post title
  - Creation UI; picture attachments, file attachments
  - Post description
  - Specifications panel; price, book edition, language, serial number

Post: Reply, Save, Report, Posted Date, (Maybe Seller Rating)



## List of non-functional requirements

### Competitive Analysis:

Product	Safe Transaction	Saves Money -No Shipping fee	Tailored to SFSU community	Pick up at SFSU
Ebay	✗	✓	✗	✗
Amazon	✓	✓	✗	✗
Craigslist	✗	✓✓	✗	✗
GatorBay	✓✓	✓✓	✓✓	✓✓

✓ Feature exists; ✓✓ Superior, ✗ does not exists

### High-level system architecture and technologies used:

Server Host: Google Compute Engine

Operating System: Linux

Server Database: MySQL

Web Server: Node JS

Server-Side Language: JavaScript

Web Framework: Bootstrap

IDE: Visual Studio, VS code

### Team and roles:

Team lead: Bobby Roots

Backend Lead: Michael Davichick

Backend Member: William Rattan

Frontend Lead: Michael Wang

GitHub Master: Michael Almeda

Checklist:

- So far all team members are engaged and attending ZOOM sessions when required
  - ON TRACK
- Team found a time slot to meet outside of the class
  - DONE/OK
- Back end, Front end leads and Github master chosen
  - DONE/OK
- 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
- Team lead ensured that all team members read the final M1 and agree/understand it before submission
  - DONE/OK
- Github organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)
  - DONE/OK