Gator Trade

By:
SW Engineering CSC648/848 Spring 2020
Team 03
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Qian Hu (Front-end Lead)
Tingfeng Wan (Back-end Lead)
John Joshua Gutierrez (Github Master)
Eric Ngo (Full-Stack Developer)
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1. Executive Summary

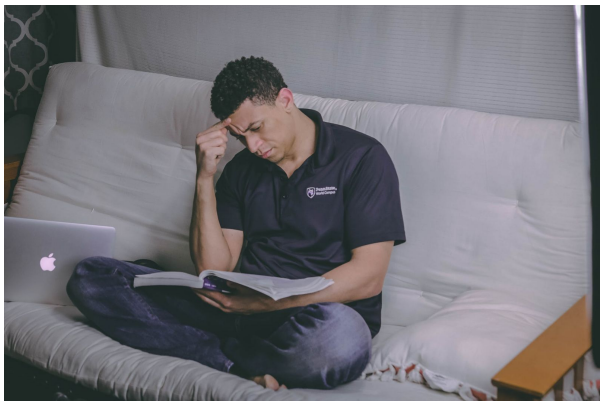
Team 03 offers San Francisco State students and faculty a convenient way to access digital media pertaining to their classes through a web client service called Gator Trade. We aim to build a local e-commerce market that will allow students and faculty to post, search, browse, buy, sell and trade items for San Francisco State University student projects and/or class material for faculty members. Gator Trade's content is exclusive only to San Francisco State's class materials, therefore eliminating the need to browse other sites for content related to the user's class.

Gator Trade will allow San Francisco State University students and faculty the ability to search and browse for items based on what they typed or the categories of classes they choose. On the other hand, registered SFSU users will have the same capabilities of general users along with the ability to post and/or buy items. Once the user is ready to purchase, the site will enable contact with the seller via displayed contact info. SFSU Students and faculty will be allowed to post their current or previous class materials for their desired price. SFSU users are allowed to post their item for free in the case that they want to help fellow college students financially. By having a localized SFSU e-market, students and faculty members can hold onto their items until they feel the need to let it go. The feature that will stand out for Gator Trade will be its capability to narrow user searches through categories pertaining to SFSU specific departments and or specified class information.

Team 3 consists of six students from San Francisco State University who are pursuing degrees in Computer Science. The team is led by Samuel Bahlibi. Following with the front-end development team who consists of Marvin Nguyen, John Joshua Gutierrez, and is led by Qian Hu. The back-end development team consists of and is led by Tingfeng Wan. Lastly, we have Eric Ngo who will be traversing from front to back end. Our team is passionate about helping students efficiently find resources for their homeworks and projects so that they can avoid spending hours for content that can easily be provided by fellow members of the SFSU body.

2. Use Cases

Personas:



Patrick: 1st year at SFSU majoring in business and a part time worker

- A little busy
- No connections
- Familiar with using e-market web applications
- Needs some digital media for projects

Melissa: Faculty Member at SFSU's Business Department (Admin)

- Very familiar with web applications
- Has handled multiple SFSU business classes
- Has a bit of free time
- Wants to admin Gator Trade

John: a financially unstable part-time college student in his 3rd year at SFSU.

- Juggling between two jobs
- Barely making ends meet
- Wants to post art and music for sale
- Needs free digital content
- Not familiar with web applications

Use Cases:

1. **Patrick** doesn't have a lot of friends so he doesn't know where to get digital media content for his school business projects. He goes to Gator Trade to find possible images and videos to use as his own for a presentation. He finds that there is content posted by a Business Professor that he could email after he registers. He emails the professor to help choose a safe designated meeting place on the app's SFSU map. Both chose the library at SFSU and traded.
2. **Melissa** wants to do admin work outside of her classes. She finds Gator Trade and becomes an admin. She overlooks all items being posted by students and other faculty members in her dashboard before fully registering the posted item online. She deletes inappropriate content and she bans the student or faculty if the content is too overboard.
3. **John** is a student struggling to survive financially. He is living paycheck to paycheck just to pay for college and rent. He does art and music in his free time and he's trying to sell them on Gator Trade. He creates an account and posts his work for sale. On the other hand, he needs free images and music for his future content. He searches and browses and finds images and music for free that he can just download on the spot.

3. Data Items and Entries

Unregistered User:

- User who does not have an account on the website.
- They are able to browse the website, search, and view any of the media being posted or sold.

Registered User:

- User who has created an account on the website.
- They have the same privileges of a casual user.
- They are able to purchase media
- Can create posts for free media or purchasable media

Admin:

- User with elevated privileges.
- Privileges include the ability to remove posts, where the admin checks posts for any illegal content and delete the post if it violates any rules.

Post:

- Lists details of the media such as the description, media type, file size, etc.

- Description will give you some background information about the media.
- Pictures shall be low res.
- Download will be available if the media is free.
- Post will contain information regarding purchase or download such as price or a download link.

Media:

- The entity being posted on the website to be downloaded or purchased.

Media Type:

- Tells users whether the posted item is of a certain media type such as a video, photo, or etc.

Media Description:

- Describes what the posted media is.

4. Initial List of Functional Requirements

1. Unregistered Users:

1.1 - An unregistered user shall be able to view media being posted or sold.
1.2 - An unregistered user shall be able to browse for media.
1.3 - An unregistered user shall be able to filter media.
1.4 - An unregistered user shall be able to search for media.
1.5 - An unregistered user shall not be able to see sellers contact info.
1.6 - An unregistered user shall not be allowed to upload media.

2. **Registered Users:**

2.1 - A registered user shall inherit everything an unregistered user can do.
2.2 - A registered user shall be able to purchase digital media from the website.
2.3 - A registered user shall be able to download free digital media.
2.4 - A registered user shall be able to ping another user for their contact info.
2.5 - A registered user shall be able to ping for a meetup location.
2.6 - A registered user shall be able to accept a meetup location.
2.7 - A registered user shall be able to accept a request for their contact info.
2.8 - A registered user shall be able to upload digital media to the website.
2.8 - A registered user shall be able to delete their digital media from the website.
2.9 - A registered user shall have a profile page showing their current listings.
2.10 - A registered user shall be able to view purchased items.

3. **Admins:**
    3.1 - An administrator shall inherit everything a Registered User can do.
    3.2 - An administrator shall be able to moderate digital media posted on the site.
    3.3 - An administrator shall be able to delete any post on the site.
    3.4 - An administrator shall be able to ban users from the site.
    3.5 - An administrator shall have a login protected admin-panel to facilitate

5. 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. Full resolution free media shall be downloadable directly, and full resolution media for selling shall be obtained after contacting the seller/owner
6. No more than 50 concurrent users shall be accessing the application at any time
7. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
8. The language used shall be English (no localization needed)
9. Application shall be very easy to use and intuitive.
10. Google analytics shall be used
11. No email clients shall be allowed
12. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.
13. Site security: basic best practices shall be applied (as covered in the class) for main data items
14. Media formats shall be standard as used in the market today
15. Media material shall be either free or for sale, as determined by media owner
16. Each media material shall have its license info as one of the following: a) free use and modification; b) free but only allowed for SFSU related projects; c) for sale
17. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development

18. The website shall prominently display the following exact text on all pages *"SFSU Software Engineering Project CSC 648-848, Spring 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

	Gator Trade	Shutterstock	Getty	Fotolia
Digital Media Download	+	+	+	+
Creator Contact	++	-	-	-
Digital Media Purchase/Sales	+	+	+	+
Non-Image Medias	+	+	+	+
SFSU Meetup	++	-	-	-
Class Filter	++	-	-	-

SFSU SPECIFICS - SFSU Class Lookup

Shutterstock, Getty, and Fotolia (now Adobe Stock) all offer an extensive library of media with their site. With editorially curated content updated periodically, their users can discover suitable media for their project with relative ease. However, this plethora of media can distance the creator from the customers, sometimes removing them from the process altogether. By personally involving the creator into the process, Gator Trade can act as a storefront for San Francisco State University students and faculties to share their media, as opposed to a singular purchaser for medias. This allows for contacts between the creators and client, both for the negotiation for uploaded media and for requesting commissions.

7. High-level system architecture and technologies used

Server Host: AWS 1CPU 1GB of RAM

Operating System: Ubuntu v18.04.3 LTS

Database: MySQL

Web Server: NGINX

Server-Side Language: JavaScript

Additional Technologies:

IDE: Visual Studio Code

Web Framework: BootStrap

SASS

Node

Express

Google Analytics

Lets Encrypt

8. Our Team Members

- Samuel Bahlibi (Team Lead)
- Qian Hu (Front-end Lead)
- Tingfeng Wan (Back-end Lead)
- John Joshua Gutierrez (GitHub Master)
- Eric Ngo (Front-end and Back-end member)
- Marvin Nguyen (Front-end member)

9. Checklist

- Team found a time slot to meet outside of the class: **DONE**
- GitHub master chosen: **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**
- Team lead ensured that all team members read the final M1 and agree/understand it before submission: **DONE**
- GitHub organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.): **DONE**