

SW Engineering CSC648-848 Spring 2025

Project/application title and name: Gator Market

Section 04 Group 1 Milestone 1

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Revision History

<u>Date</u>	<u>Notes</u>
10 March 2025	Initial publication of M1 document

Topics for the milestone

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Executive Summary

In an era of digital connectivity and on-demand convenience, San Francisco State University students face a persistent challenge: finding a safe, efficient, and reliable way to buy and sell personal items. Whether it's textbooks, dorm furniture, electronics, or other essentials, students often rely on platforms like Craigslist or Facebook Marketplace. However, these platforms present significant risks, including scams, unverified buyers and sellers, and transactions that require meeting strangers in unsecured locations. To address these issues, we introduce SFSU BUY & SELL PLATFORM, an exclusive SFSU student marketplace designed to create a secure, seamless, and community-driven buying and selling experience tailored specifically for the university.

At the core of SFSU BUY & SELL PLATFORM lies an unwavering commitment to trust and security. By requiring "SFSU email" verification, we ensure that only verified students can participate, fostering a safe and student-only environment where users can confidently list and purchase items. Additionally, our built-in in-app messaging system allows buyers and sellers to communicate securely without sharing personal phone numbers or relying on third-party messaging services, reducing the likelihood of fraud and ensuring peace of mind for both parties.

The SFSU Buy & Sell Platform offers AI-powered pricing suggestions, helping students set competitive prices and ensuring fair market value. Its group buying feature allows students to save money on bulk purchases like textbooks and electronics. Unlike generic marketplaces, the platform focuses on SFSU, eliminating irrelevant listings and fostering a tight-knit community. With an intuitive interface, users can easily create listings, filter results, and receive notifications for items matching their interests, providing a seamless experience for all.

Behind this initiative is a team of passionate SFSU students, each bringing expertise in software development, UX design, and business strategy. Being students ourselves, we recognize the daily hurdles involved in campus transactions, and we are committed to creating a marketplace that's built by students, for students. Our varied backgrounds enable us to infuse innovative ideas into the project and continually refine the platform to adapt to the ever-changing needs of our peers. With the right backing, SFSU BUY & SELL PLATFORM has the potential to become the go-to hub for SFSU transactions, transforming how students buy and sell while promoting a safer, smarter, and more budget-friendly campus economy.

Personas

Persona 1: Emily Chen – The Budget-Conscious Buyer



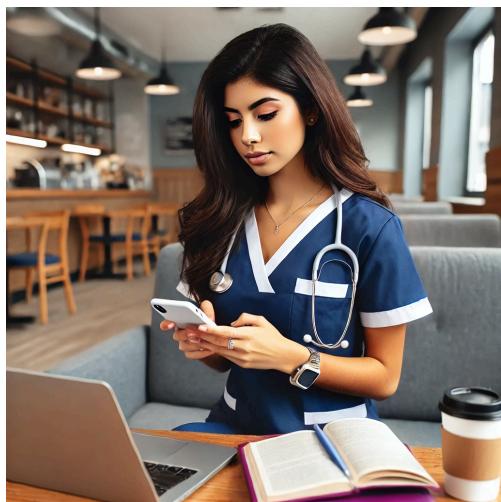
- **Age:** 20
- **Major:** Business Administration
- **Attitude:** Practical, money-savvy, and always on the lookout for a good deal. She values sustainability and prefers second-hand items over new ones to save money and reduce waste.
- **Skills:** Comfortable navigating online marketplaces but cautious about scams and poor-quality items. She compares prices before making a decision.
- **Limitations:** Works part-time and has a tight budget, making her hesitant about purchasing non-essential items. Prefers cash transactions but is willing to use payment apps.
- **Pain Points:**
 - Difficulty verifying seller credibility and item condition.
 - Prefers not to meet strangers off-campus.
 - Struggles to find the right listings quickly.
- **Goals:**
 - Find affordable textbooks, dorm furniture, and electronics from fellow students.
 - Get notifications for new listings that match her needs.
 - Ensure safe and convenient transactions.

Persona 2: Jason Patel – The Frequent Seller



- **Age:** 22
- **Major:** Computer Science
- **Attitude:** Entrepreneurial, resourceful, and always looking for ways to make extra money. He enjoys decluttering and reselling items for profit.
- **Skills:** Experienced with online marketplaces, takes high-quality item photos, and understands how to price competitively.
- **Limitations:**
 - Limited storage space in his dorm, so he wants quick sales.
 - Gets frustrated with unreliable buyers who cancel last minute.
 - Prefers digital payments but sometimes deals with cash.
- **Pain Points:**
 - Dealing with lowball offers and flaky buyers.
 - Managing multiple listings across different platforms.
 - Ensuring safe, hassle-free meetups.
- **Goals:**
 - Sell textbooks, tech gadgets, and old gaming consoles before moving out.
 - Use a trusted platform where buyers are SFSU students only to avoid scams.
 - Automate messaging responses to common buyer questions.

Persona 3: Sarah Martinez – The Convenience Seeker



- **Age:** 21
- **Major:** Nursing
- **Attitude:** Busy, efficiency-driven, and values convenience over price. Prefers **ready-to-go** deals instead of prolonged negotiations.
- **Skills:** Familiar with online shopping, prefers mobile apps, and avoids time-consuming transactions.
- **Limitations:**
 - No time for in-person meetups due to her demanding coursework.
 - Prefers verified sellers to reduce risk.
 - Doesn't like haggling over prices.
- **Pain Points:**
 - Frustrated by delayed responses from sellers.
 - Annoyed by listings without enough details or photos.
 - Prefers secure payment methods but doesn't want to deal with cash.
- **Goals:**
 - Quickly find nursing books, scrubs, and study materials without wasting time.
 - Use a buy-now option with secure, pre-arranged pickup spots.
 - Receive notifications for items she frequently searches for.

Persona 4: Marcus Thompson – The First-Time User



- **Age:** 19
- **Major:** Psychology
- **Attitude:** Cautious, hesitant about online transactions, and new to buying/selling items. Wants a simple, guided experience.
- **Skills:** Basic familiarity with e-commerce, prefers step-by-step help when posting a listing.
- **Limitations:**
 - Doesn't know how to price items competitively.
 - Worried about safety when meeting buyers in person.
 - Not sure what items will sell quickly.
- **Pain Points:**
 - Nervous about getting scammed.
 - Unsure how to describe and photograph items properly.
 - Afraid his listings won't attract buyers.
- **Goals:**
 - Successfully sell his extra dorm furniture to upperclassmen before moving out.
 - Learn how to make safe transactions on campus.
 - Gain confidence using online marketplaces.

Persona 5: Tiffany Nguyen – The Social Seller & Buyer



- **Age:** 20
- **Major:** Marketing
- **Attitude:** Outgoing, community-driven, and enjoys interacting with students through buy-and-sell groups.
- **Skills:** Experienced in social media sales, uses creative descriptions to attract buyers.
- **Limitations:**
 - Prefers selling to students she already knows or has mutual friends with.
 - Avoids long-distance meetups due to her packed social schedule.
 - Wants a more interactive and fun marketplace experience.
- **Pain Points:**
 - Doesn't trust random sellers with no profile details.
 - Wishes the platform had more social features like reviews, community groups, or shared wishlists.
 - Finds text-heavy listings boring—prefers visual, Instagram-style listings.
- **Goals:**
 - Sell clothes, accessories, and dorm decor to students with similar interests.
 - Engage in trendy marketplace features like “trending now” or “best deals this week.”
 - Connect with mutual friends for safer transactions.

High-Level Use Cases for SFSU Buy & Sell Platform

1. Finding and Purchasing Items from Verified SFSU Students

Summary: Ensuring safe and exclusive exchange by limiting interactions to verified SFSU students.

Emily, a sophomore at SFSU, is preparing for the upcoming semester and needs a used biology textbook to save money. She has tried other platforms like Facebook Marketplace and Craigslist, but she is wary of scammers and overpriced listings. She logs into the SFSU Buy & Sell platform, where only verified students with an active SFSU email address can list and purchase items. This feature gives her peace of mind, knowing she is dealing with her fellow students instead of unknown strangers.

Using the platform's search and filter functionality, Emily quickly narrows her options by selecting the "Textbooks" category and filtering results by "Condition: Used" and "Price: Under \$50." She finds a listing that meets her criteria, posted by another student who has a verified SFSU badge next to their name. Before committing, she checks the seller's rating and transaction history, which reassures her of their reliability.

Emily messages the seller using the in-app chat feature, asking if the book is still available and where they can meet. The seller responds quickly, and they agree to meet at an SFSU-designated safe exchange zone, such as the library or student union, which is monitored for security. Emily appreciates the ease of communication. The exchange was successful.

2. Selling Items Quickly and Efficiently with Smart Pricing Suggestions

Summary: Helping students price items fairly and complete sales efficiently.

Jason, a senior computer science student, is moving out of his apartment and needs to sell his gaming monitor, desk chair, and dorm furniture before graduation. He wants to make some quick cash but isn't sure how to price his items competitively.

Jason logs into the SFSU Buy & Sell platform and starts listing his gaming monitor. The platform's Smart Pricing Tool suggests a price range based on similar items sold by other SFSU students, considering factors like brand, condition, and demand. This helps Jason avoid overpricing, which could slow down his sale, or underpricing, which could make him lose money.

Within a few hours, Jason receives several messages from interested buyers. To reduce back-and-forth negotiations, he enables the Quick Sale option, allowing buyers to make instant offers. He also selects a designated campus meet-up point near his dorm, making it easy for buyers to pick up items at their convenience.

One buyer, Emily, expresses strong interest in the monitor and appreciates the convenience of the designated campus meet-up point. After discussing the details with Jason, she decides to explore her options further. Despite no transaction taking place, Jason's positive interaction and responsiveness help him build credibility for future sales on the platform.

3. Reserving Items and Group Buying for Student Discounts

Summary: Enabling students to buy in bulk together for better deals.

Sarah, a nursing major, needs to buy a stethoscope, medical scrubs, and anatomy flashcards for her upcoming clinical rotations. However, these items are expensive when purchased individually, and she is hoping to find a more affordable option.

While browsing the SFSU Buy & Sell platform, she notices that some listings have a "Group Buy" feature, allowing multiple students to purchase in bulk and receive a discount. She finds a listing for stethoscopes, where the seller offers 10% off for group purchases of five or more. Sarah joins the Group Buy listing, and within two days, four other nursing students also sign up.

Once the required number of buyers is reached, the seller confirms the discounted price and arranges a bulk delivery to campus, making it convenient for all participants. Sarah pays her share using the platform's secure payment integration, and the group picks up their items from the seller in a pre-arranged drop-off location at the student center.

This feature not only saves Sarah money but also helps sellers sell multiple items at once, benefiting both parties. It fosters a sense of community-driven commerce among students, making bulk buying an efficient and cost-effective option.

4. First-Time Sellers Using Guided Listing and Seller Ratings

Summary: Helping inexperienced users confidently list and sell their items.

Marcus, a freshman at SFSU, has never sold anything online before but wants to get rid of a mini fridge and dorm lamp that he no longer needs. However, he is unsure how to write a good listing or how much to charge.

When he opens the platform, Marcus is guided through an intuitive step-by-step listing process that helps him:

- 1) Take high-quality photos by suggesting good lighting and angles.
- 2) Write an effective item description using pre-filled templates.
- 3) Set a competitive price based on market trends at SFSU.
- 4) Choose a safe meetup location or enable on-campus drop-off lockers.

Since Marcus is a first-time seller with no transaction history, buyers may hesitate to purchase from him. However, the platform allows him to verify his account using his SFSU student ID, giving him a verified seller badge that builds trust. He also sees an option to offer a first-time seller discount, encouraging buyers to take a chance on him.

Shortly after listing his items, Marcus receives messages from interested buyers. He uses the in-app chat to coordinate a sale and successfully sells his mini fridge within a week. Thanks to the rating system, the buyer leaves Marcus a positive review, which boosts his credibility for future sales.

This feature makes it easy for new sellers to participate confidently, ensuring a thriving marketplace where even first-time users can successfully buy and sell items.

5. Finding Free or Discounted Essentials Through Student Giveaways

Summary: Encouraging sustainable and community-driven transactions.

Tiffany, a marketing major, is moving into her new apartment near campus and needs basic furniture and kitchen supplies. She is on a tight budget, so she hopes to find affordable or free items from other students.

She logs into the platform and explores the “Student Free & Discounted” section, which lists items that students are giving away or selling at a minimal cost. This feature encourages sustainability and waste reduction, allowing students to pass down used but functional items instead of throwing them away.

Tiffany finds a free microwave and a \$10 desk chair, listed by graduating seniors who no longer need them. She messages the sellers and arranges a pickup at the dormitory donation station, a designated drop-off area where students can leave unwanted items for others to claim.

This feature not only helps students save money but also promotes a culture of sharing and sustainability at SFSU. Students can find essential items without financial strain, making college life more affordable and environmentally friendly.

List of Main Data Items and Entities

1. User

Description: Represents a person interacting with the platform, which can be classified into different user types:

- **Registered User:** A student who has signed up and can buy, sell, and interact with other users.
- **Admin User:** A platform moderator with additional privileges to manage content and enforce rules.
- **Anonymous User:** A visitor who can browse products but must register to purchase or interact with sellers.

Attributes:

- **User ID** (unique identifier)
- **Name**
- **Email** (used for login and notifications)
- **Role** (e.g., buyer, seller, admin, anonymous user)
- **Registration date** (only applicable to registered users)
- **Profile picture** (optional)
- **Contact details** (only visible to admin or during transactions)

2. Product

Description: An item listed for sale by a registered user.

Attributes:

- **Product ID** (unique identifier)
- **Seller ID** (reference to **Registered User**)
- **Name** (title of the product)
- **Description** (detailed information about the product)
- **Category** (e.g., electronics, furniture, clothing, etc.)
- **Price**
- **Condition** (new, used, etc.)
- **Image(s)**

- **Date listed**
- **Status** (available, sold, reserved)

3. Category

Description: Represents the classification of products.

Attributes:

- **Category ID** (unique identifier)
- **Name** (e.g., electronics, furniture, clothing)
- **Parent category** (for subcategories)

4. Review

Description: A rating or feedback given by buyers and sellers after an interaction.

Attributes:

- **Review ID** (unique identifier)
- **Reviewer ID** (reference to **Registered User**)
- **Reviewee ID** (reference to **Registered User**)
- **Product ID** (optional reference)
- **Rating** (1-5 stars)
- **Comment**
- **Date of review**

5. Wishlist

Description: A collection of products a user is interested in purchasing later.

Attributes:

- **Wishlist ID** (unique identifier)
- **User ID** (reference to **Registered User**)
- **Product ID(s)** (reference to **Product**)

- **Date added**

6. Message

Description: A message exchanged between users for product inquiries.

Attributes:

- **Message ID** (unique identifier)
- **Sender ID** (reference to **Registered User**)
- **Receiver ID** (reference to **Registered User**)
- **Message content**
- **Timestamp**
- **Status** (read, unread)

7. Admin Actions

Description: Actions taken by an **Admin User** to manage platform content.

Attributes:

- **Admin ID** (reference to **Admin User**)
- **Action type** (delete user, block product, etc.)
- **Target entity** (User, Product, etc.)
- **Action description**
- **Timestamp**

8. Listing Report

Description: A report submitted by a user regarding a suspicious, inappropriate, or fraudulent listing.

Attributes:

- **Report ID** (unique identifier)
- **Reporter ID** (reference to **Registered User**)
- **Product ID** (reference to **Product**)
- **Reason** (e.g., scam, misleading info, inappropriate content)
- **Additional comments**
- **Date reported**
- **Status** (pending, reviewed, resolved)

Data Glossary (Google Analytics data not included)

ACCOUNT:

Field Name	Data Type	Description
user_id	INT	Unique identifier for each user, auto-incremented, serves as the primary key.
username	VARCHAR(50)	A unique username chosen by the user for identification and login purposes.
password_hash	VARCHAR(255)	The user's password, stored as a hashed value for security (e.g., using bcrypt).
first_name	VARCHAR(50)	The user's first name, for personalization and identification.
last_name	VARCHAR(50)	The user's last name, for personalization and identification.
email	VARCHAR(100)	The user's university email (e.g., ending in @sfsu.edu), unique, used for login and verification.
verification_status	ENUM	Indicates if the user is a verified current SF State student ('permanent', 'annual', 'not verified').

Field Name	Data Type	Description
phone_number	VARCHAR(15)	An optional contact phone number for verification purposes. (can be NULL)
profile_picture_url	VARCHAR(255)	An optional URL to the user's profile picture (can be NULL).
date_joined	TIMESTAMP	Timestamp recording when the user created their account, defaults to current time.
last_login	TIMESTAMP	Timestamp of the user's most recent login, for tracking activity (can be NULL).
user_role	ENUM	The user's role on the platform ('user', 'moderator', 'admin'), defaults to 'user'.
account_status	ENUM	The current status of the user's account ('active', 'inactive/banned', 'deleted'), defaults to 'active'.

POST:

Field Name	Data Type	Description
post_id	INT	Unique identifier for each post, auto-incremented, serves as the primary key.
user_id	INT	Foreign key referencing the Users table, indicating the user who created the post.
title	VARCHAR(100)	The title of the post, limited to 100 characters for brevity and clarity.
description	TEXT	A detailed description of the item being sold or sought, allowing flexibility in length.
category_id	INT	Foreign key referencing the Categories table, specifying the item's category.

price	DECIMAL(10,2)	The price of the item, with two decimal places (e.g., supports up to 99999999.99).
condition	ENUM('new', 'used', 'refurbished')	The condition of the item, restricted to predefined options for consistency.
location	VARCHAR(100)	Uses geocode to work with google maps API.
created_at	TIMESTAMP	Timestamp of when the post was created, defaults to the current time for sorting purposes.
status	ENUM('active', 'sold', 'deleted')	The current status of the post, managing its lifecycle (defaults to 'active').
approval_status	ENUM('pending', 'approved', 'rejected')	Indicates if the post has been reviewed by moderators (defaults to 'pending').

List of High-Level Functional Requirements

1. **Browsing, Searching, and Reviewing Item Information:** User shall search and look for products
2. **Contacting Sellers:** User shall contact sellers regarding product issues
3. **Uploading Sales Item Information:** User shall input and update product information
4. **Dashboard for Sellers:** Provides a user-friendly interface for sellers to manage their products
5. **Site Administration:** Offers tools for user management and website maintenance
6. **Wishlist:** User shall save products they wish to purchase later
7. **Chat System:** Users shall chat among themselves easily.
8. **Item Reservation System:** Users shall be able to reserve an item to indicate interest before purchasing, allowing sellers to track potential buyers.
9. **Favorite & Watchlist Feature:** Users shall be able to save items to a favorites list or watchlist to easily revisit them later.
10. **Rating and Reviews:** User shall post reviews and rate products
11. **Report Errors:** Users shall report system or product-related issues
12. **Image and Video Upload for Listings:** Users shall be able to upload multiple images and short videos for their listings to better showcase product details and condition.
13. **Recommendations:** User shall have personalized product recommendations
14. **Group Buying Features:** User(s) shall collaborate on purchases through a shared cart system
15. **Responsive and Intuitive UI:** Users shall have an easy UI to use
16. **SFSU Verification:** User must be an SFSU student
17. **Search & Filter Enhancements:** Users shall be able to apply advanced search filters (e.g., category, condition, price range, location) to quickly find relevant listings.
18. **Seller Reputation System:** Users shall be able to leave feedback and ratings for sellers based on past transactions to enhance trust and credibility on the platform.
19. **Analytics and stats:** User shall be able to see product performance and activity
20. **Computer/Mobile Use:** Compatible across various devices, enhancing user accessibility

List of Non-Functional Requirements

1. Application shall be developed, tested and deployed using tools and cloud servers approved by Class CTO and as agreed in MO
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 shall render well on mobile devices (no native app to be developed)
4. Posting of sales information and messaging to sellers shall be limited only to SFSU students
5. Critical data shall be stored in the database on the team's deployment server.
6. No more than 50 concurrent users shall be accessing the application at any time
7. Privacy of users shall be protected
8. The language used shall be English (no localization needed)
9. Application shall be very easy to use and intuitive
10. Application shall follow established architecture patterns
11. Application code and its repository shall be easy to inspect and maintain
12. Google analytics shall be used
13. No e-mail clients or chat services 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
14. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.
15. Site security: basic best practices shall be applied (as covered in the class) for main data items
16. Media formats shall be standard as used in the market today
17. Modern SE processes and tools shall be used as specified in the class, including collaborative and continuous SW development and GenAI tools
18. The application UI (WWW and mobile) shall prominently display the following exact text on all pages "SFSU Software Engineering Project CSC 648-848, Spring 2025. For Demonstration Only" at the top of the WWW page Nav bar. (Important so as to not confuse this with a real application). You have to use this exact text without any editing.

Competitive Analysis

Feature	Our Platform	FB Marketplace	Craigslist	OfferUp
SFSU Student Verification	✓	✗	✗	✗
Chat system for transactions	✓	✓	✗	✓
Category-Based Listings	✓	✓	✓	✓
Payment Integration	✗	✗	✗	✓
User ratings and reviews	✓	✓	✗	✓
Admin moderation	✓	✗	✗	✗
Wishlist Feature	✓	✗	✗	✗
Event-Based Listings	✓	✗	✗	✗

Our platform stands out by offering SFSU student verification which makes this platform **exclusive to SFSU students**. This ensures a safer and more trustworthy marketplace compared to platforms such as Facebook Marketplace and Craigslist, which are open to the public and thus carry a certain degree of risk. And unlike Craigslist, our platform includes a built-in chat system for seamless communication. While this does make our product similar to Facebook Marketplace and OfferUp, what gives us an edge over those competitors is our **admin moderation** to prevent scams and inappropriate listings. The user rating and review feature also aids in further moderation because users will be able to inform other users whether a certain seller or service provider is worth their money or not. We share a review system with Facebook Marketplace and OfferUp but Craigslist is lacking one. Our wishlist feature enhances the user experience by allowing students to track desired items and services. This is a feature that none of our competitors have. Another feature that sets us apart is our **event-based listings** feature which caters to student-specific needs. For example, an event for a textbook exchange and meet-and-greet could be posted at the start of the semester. A feature like this can only work on a platform that is built by and for students, which none of our competitors are. These unique functions provide a more secure and tailored experience to the SFSU community than existing alternatives.

High-level system architecture and technologies used

Software:

Flask ver 3.02: Python web framework for the backend server. Also very supportive of messaging and various auth-related features.

MySQL 8.036 (general availability): relational database as required by the CEO.

NGINX 1.26.0 (mainline): open source web server for handling requests and serving static content

Swagger UI 5.18.2: API documentation

Deployment:

AWS EC2 with Docker 27.2.0. Simplifies deployment and potential scalability and reliability. Granted, the whole idea of this site is directly geographically limited in scope so physical hosting might be better in the long run, but scalability might be a good idea too as this is the kind of idea that would receive way more traffic at specific times of year for a week or 2.

Note: Our free tier t2 micro only has 1GB RAM, 30GB SSD, 1 VPU.

Supported Browsers:

Google Chrome (Version 100 and above) – This is one of the most widely used browsers on both desktop and mobile.

Mozilla Firefox (Version 95 and above) – A popular open-source browser known for privacy and developer-friendly features.

Database:

MySQL 8.0.36: A relational SQL database required by the CEO. Stores all critical data on the Instance.

Front-End Frameworks:

Vite 5.4.14: Build tool and deployment server for fast development/local server debug.

React 19: Javascript library for building user interfaces.

Axios 1.7.7: (could be changed to fetch or ky if we want mobile to look better more easily) http client for API requests

Major external APIs:

Google Analytics 4: will be used to track user website use and navigation as requested by the CEO. Has a free tier.

Google maps API 3.57: can be used for location navigation and help users locate each other. Has a free tier.

Possibly:

Cloudinary/imgix/skip it/urlbox/etc.: help with thumbnail images, some like clouddinary have a free tier

Other tools:

Namecheap: Free domain and SSL certificate via GitHub Student Developer Pack for secure deployment

Doxxygen 1.12.0: assists in generating code documentation

Google maps API: can be used for location navigation and help users locate each other.

Trello: task management and planning

Google maps API: can be used for location navigation and help users locate each other

Visual Studio Code 1.87.0: The primary development environment.

Use of GenAI Tools like ChatGPT for Milestone 1

As part of our development process for Milestone 1, our team utilized **ChatGPT** to assist with brainstorming, drafting, and structuring the document. The objective was to explore how this tool could improve efficiency, creativity, and clarity in our software engineering workflow. Below, we outline our experience with ChatGPT for this milestone.

GenAI Tool Used

- **ChatGPT 4.0** – Used for generating content, refining technical descriptions, and structuring reports.

Tasks Where ChatGPT Was Used and Effectiveness Ratings

We used ChatGPT for several tasks and assessed its effectiveness based on the quality of results and the time saved.

Task	Rating	Description of Use
Executive Summary	MEDIUM	Helped structure the summary and refine the wording to make it concise and engaging.
Personas & Use Cases	LOW	Generated sample personas based on existing marketplace apps and helped describe common user scenarios. Required manual revision for relevance.
Functional Requirements	MEDIUM	Provided structured formats and suggested functional requirements, but required human validation for alignment with project goals.
Competitive Analysis	LOW	Helped summarize key differences between our platform and competitors, but manual research was still needed.

Document Formatting	HIGH	Helped with structuring sections, refining grammar, and ensuring consistency.
Brainstorming Unique SFSU Features	LOW	Provided ideas for custom SFSU-specific functions but needed human refinement.

Key Examples and Prompts Used

1. Executive Summary Prompt

- **Prompt:** "Create an executive summary for an SFSU student buy-and-sell platform emphasizing its uniqueness."
- **AI Response (Edited):** "The SFSU Buy & Sell Platform is a secure, student-only marketplace with university authentication to prevent scams."

2. Functional Requirements Prompt

- **Prompt:** "List some functional requirements for a student-to-student marketplace web application, categorized by user roles."
- **AI Response (Edited):**
 - **Users:** Post listings, contact sellers, leave reviews, report items, View listings, search by category.
 - **Admin Features:** Moderate content, verify users, track flagged items.

Benefits and Limitations Observed

Benefits

- **Time-saving** – AI significantly reduced the time required for drafting and structuring documents.
- **Idea generation** – Helped us brainstorm and improve clarity in requirements.
- **Improved organization** – Ensured consistency in formatting and writing style across different document sections.

Limitations

- **Contextual accuracy** – AI sometimes generated responses that were too generic or not fully aligned with our project's scope.
- **Manual validation required** – While AI-generated content provided a strong starting point, human review was necessary to refine and validate the outputs.
- **Limited real-time collaboration** – AI did not replace brainstorming sessions among team members but rather complemented them.

Final Thoughts on AI Use

Overall, our team found **ChatGPT highly beneficial** for structuring content, generating ideas, and improving efficiency. While the tool was not perfect and required human oversight, it helped accelerate our workflow, particularly in **drafting personas, functional requirements, and competitive analysis**. For future milestones, we plan to refine our approach by leveraging ChatGPT for more technical aspects.

Team And Roles

Name	Role
Dev Modi	Team Lead, Backend, Frontend, database
Yash Pachori	Backend Lead with Database
Kyle Yuen	Frontend Lead
Hsueh-Ta Lu	Scrum Master
Daniel	Tech Lead and Github

Team Lead Checklist

So far, all team members are fully engaged and attending team sessions when required

Ans) Done

- Team found a time slot to meet outside of the class

Ans) 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

Ans) Done

- Team reviewed class slides on requirements and use cases before drafting Milestone 1

Ans) Done

- Team reviewed non-functional requirements from “How to start...” document and developed Milestone 1 consistently

Ans) Done

- Team lead checked Milestone 1 document for quality, completeness, formatting and compliance with instructions before the submission

Ans) Done

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

Ans) Done

- Team shared and discussed experience with GenAI tools among themselves

Ans) Done

- GitHub organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc)

Ans) Done