

# GatorEats Project Documentation

Course: CSC 648-848 - Software Development (Spring 2023)

Milestone 1

By: Team 7

Github: <https://github.com/CSC-648-SFSU/csc648-03-sp23-team07.git>

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## **Executive Summary**

GatorEats is an online courier service platform that connects businesses with customers involved with San Francisco State University. GatorEats supplements the SFSU experience by providing food services tailored specifically to the SFSU campus and college experience. GatorEats provides service to any user equipped with an SFSU email account, giving access to a wide range of clients such as students, staff, and faculty. GatorEats would also support both small and corporate businesses in San Francisco by expanding the range of accessibility to more potential clients. Finally, GatorEats would support the community of San Francisco by creating food-delivery jobs, with income coming from deliveries and tips. Provided a successful implementation, the ultimate goal would be to expand services to other State Universities in California.

GatorEats provides a convenient way to order food from a variety of local restaurants, which can be delivered to one of the many dropoff points or rooms located on campus. Users will also have the option to select the time in which they would prefer their delivery, to better suit customers who do not have much availability throughout the day. What makes GatorEats stand out is its user-friendly interface, which allows customers to navigate through the app and order their favorite meals easily. The app provides a wide range of options from various restaurants, giving customers the flexibility to choose from a variety of cuisines. Moreover, GatorEats offers special deals and discounts exclusive to the app. These deals are in partnership with local restaurants, providing customers the opportunity to try new food and save money simultaneously. We aim to revolutionize the food delivery industry by giving everyone a fast, reliable, and convenient service. We are confident that our app will become a go-to destination for students, staff, and faculty in the SFSU area who crave delicious food without any hassle.

Our team is a startup of five San Francisco Computer Science students. Together, we are a combination of talented front-end, back-end developer, quality assurance, and GitHub master spearheaded by a team lead. We are proficient in JavaScript and Bootstrap. Our team is passionate about creating solutions that make a positive impact on people's lives, and we believe that GatorEats has the potential to do just that. Being students, we understand the unique challenges and needs of the college community, and we're excited to provide a service that caters specifically to those needs.

## **Personae and Main Use Cases**

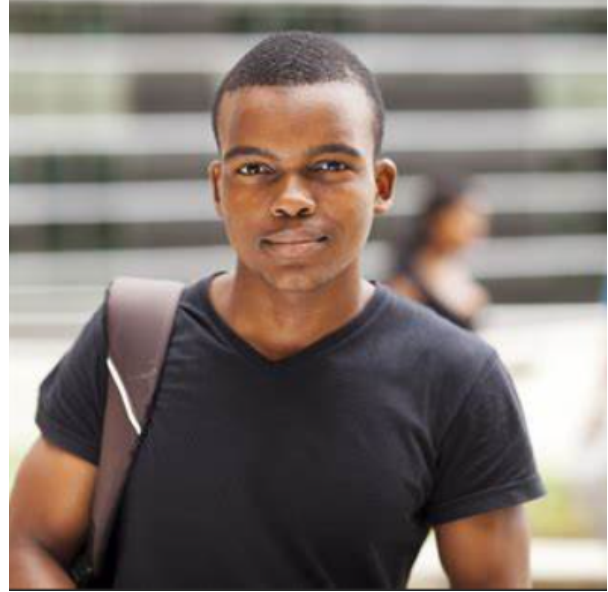
- Name: Maria Gabriela
- Age: 46
- Occupation: Professor
- Location: San Francisco
- Skills: Somewhat tech-savvy
- Personality: Serious; Cares about students
- Goals: Wants to be able to eat different but quick and convenient food
- Pain points: Sick of eating the same thing every day for convenience; Finds time between classes better spent grading and helping students



[<https://atlasvein.com/content/uploads/2017/08/iStock-519665166.jpg>]

Maria is an English professor at San Francisco State that teaches in the Humanities building, room 404. She teaches a full day of classes four days a week and, at most, has an hour between classes for a lunch break which is also her office hours. She eats the same thing every day: a ham and mayonnaise sandwich between two pieces of white bread. She is sick of eating the same thing every day, but four flights of stairs, office hours, and grading always deter her from leaving. She hears about the new web app that'll deliver food directly to SFSU students and Faculty. She goes to the website and sees dropdowns for buildings and rooms. She selects Humanities 404 and clicks the find food button. It takes her to a page listing all the available restaurants in the area. She decides on a Thai restaurant and adds a pad thai and iced coffee to her cart and checkouts. She is then asked to either sign up or sign in. After signing up, she adds her credit/debit information and reconfirms the order at her total. She is then sent to a thank you page and given a picture of the delivery person and name.

- Name: Zaki Willis
- Age: 23
- Occupation: Computer Science Student
- Location: San Francisco
- Skills: Very familiar with the latest technology and apps
- Personality: Outgoing, likes to try new things
- Goals: He wants to be able to grab and order food while working on his assignments quickly.
- Pain Points: He is always busy working on his assignments and has no time to line up or go to restaurants to grab lunch before his classes start.



["image: Freepik.com". This cover has been designed using assets from Freepik.com]

Zaki is a senior undergraduate student at San Francisco State University studying Computer Science. Despite his outgoing personality, he finds very little time to try out new restaurants in the area due to the heavy workload he is currently taking for the semester. Usually, he likes to go out of campus and try to eat at new restaurants, but he finds himself going to the same cafe on campus because he no longer has time to go out. He spends most of his time inside the library trying to finish his assignments, and by the time he ends, it is almost time for his next class. He learns that a delivery app exclusively delivers to SFSU students and faculty. He uses the app and decides to grab food from a nearby cafe that he has not yet eaten before and order a sandwich with an iced latte. Before paying, he is given the option to either sign in to the app using an account or to sign up. He chooses to sign up, makes an account, and then proceeds to enter his card information, along with his name. Before confirming his order, he also chooses the J. Paul Leonard Library as the delivery location. After 30 minutes, he receives a notification that the delivery person is outside the library. He then leaves the library to meet with the delivery person and receives his order.

- Name: Joe Adams
- Age: 23
- Occupation: Delivery Driver (SFSU student)
- Location: San Francisco
- Skills: Familiar with the SFSU campus and using delivery apps
- Personality: Outgoing, hard-working, and respectful
- Goals: Making money while delivering orders correctly, respectfully, and on time.
- Pain point: Joe is a student so he might not be available to work everyday



[image src: flyertalk.com]

Joe is an undergrad student at San Francisco State University (SFSU). Recently Joe has been looking for a job to make some money on the side. He heard about GatorEats and decided to apply for it. Joe applied for a delivery driver position and he found the process was very simple. When filling the application Joe had to provide information such as social security number, valid driving license, valid insurance, and a car registration. After the application, Joe had to wait a few days for his application to be accepted. Joe goes through a short onboarding process that informs him on food delivery best-practices and COVID-19 safe handling processes. Joe has been working for GatorEats. As a student at SFSU, Joe is very familiar with the campus and the restaurants around it. This allows Joe to deliver food very efficiently and on time. Joe finds working for GatorEats very fun and flexible; he can work whenever he is free from classes and homework. GatorEats allowed Joe to make extra money while pursuing his studies at SFSU.

- Name: Reah Acharya
- Age: 30
- Occupation: Restaurant Owner
- Location: San Francisco
- Skills: Familiar with restaurants and technology
- Personality: Outgoing, hard-working, and respectful
- Goals: She wants to do her business with SFSU students and faculty.
- Pain Point: Running a restaurant can be a time-consuming task, and Reah may struggle to find the time to manage her restaurant's online presence effectively.



[image src: "istock.com"]

Reah owned a cozy restaurant specializing in authentic Indian cuisine, a big hit among San Francisco State University (SFSU) students. Reah has been in the restaurant business for over a decade and was well aware of the importance of having a solid online presence to attract new customers and retain loyal ones. One day, Reah stumbled upon GatorEats, an online platform connecting local restaurants with the SFSU community's hungry customers. Without hesitation, she registered her restaurant on the platform and took her business to the next level. The registration process was simple, and within minutes, Reah provided all the necessary information about her restaurant, including the menu, hours of operation, and location. After submitting her application, Reah received a message saying that her restaurant would be approved within 24 hours by the GatorEats admin before being listed on the platform. Once her restaurant is approved, Reah can manage it online by logging into her GatorEats account. From there, she can update her restaurant's menu, hours of operation, location, and contact information as needed. She can also add photos of new dishes or specials to entice customers. Additionally, she can communicate with her customers through the platform by sending notifications about menu changes, specials, or events.

- Name: Bruce Meyers
- Age: 34
- Occupation: Admin of GatorEats
- Location: San Francisco
- Skills: Tech Savvy
- Personality: Serious, Thorough, and on time
- Goals: To not be fired from GatorEats and approve or reject restaurants in a timely manner
- Pain Point: As the sole admin of GatorEats, Bruce may struggle to keep up with the volume of restaurant registrations and approvals.



[image src: negativespace - <https://negativespace.co/concentration-work-laptop-man/>]

Bruce Meyers is a newly hired admin at GatorEats. His job is to review and approve restaurants asking to be listed on the GatorEats website. He has been told he has already been registered on the site and has to login in with his provided username and password. He heads to the GatorEats website and logs in as an admin. Immediately he sees a list of all the restaurants he needs to approve. There are two. He clicks on the first and reviews the content. He is shown a restaurant picture, the owner's name, a short description, and a menu. He checks that nothing is fabricated or missing and approves the restaurant at the bottom. He returns to the list of restaurants needing approval and clicks on the remaining restaurant. He finds it is missing a menu and prices so he rejects the restaurant application. The owner is notified of the problem and is encouraged to reapply with all the necessary information.



## **Data Glossary and Descriptions**

General User: Any user that utilizes the service shall be considered a general user. They shall view available restaurants and photos. Does not need to login or register.

Registered User: A general user that has registered shall be considered a registered user,. They must log in to access their account. A registered user shall opt into becoming delivery driver or Business account, or remain as just a registered user. An admin shall be required to register an account.

Admin: An admin account shall be a registered user. The only registered user that shall have access to approve restaurants and uploaded photos.

Driver: A registered user that shall have access to a customer's request. They are responsible for the delivery and completion of a request.

Business Account: A general user that shall create a business account. Can be linked to multiple businesses.

Payment Method: Accepts only the gator pass connected to the user's account to pay for food orders.

Order History: Registered users shall be able to view all their past orders. Restaurants shall be able to view all orders made to their restaurant by the customers.

Order: An entity that contains a Registered user's order information including the restaurant that the order was made from, the cost, the delivery driver delivering the order, the date the order was placed, the date/time the order was completed, and an orderlist.

OrderList: A list that contains MenuItem's. The orderlist is linked to an order.

Menu: A list that contains menuitems for a restaurant. The menu is linked to a restaurant

Menu Item: food options, descriptions, prices, keywords has a link to a photo

Photo: Photos that are uploaded by a Business account. Photos shall have a relevant name and can be viewed by any user. Shall be approved by the admin before being viewed by other general users

Restaurant: A restaurant shall be registered by a Business Account. They shall submit a name while registering. They shall have at least one location and at least one phone number. They shall be able to submit relevant photos and menu of their restaurant

Category: Restaurants owners will be able to link their restaurant to categories. This would allow for users to search through the list of restaurants based on categories.

Pick up point: Coordinates on GoogleMaps for general meetup points between a customer and a delivery driver

Building: Buildings located on SFSU Campus. These building shall contain rooms

Room: Rooms located within SFSU buildings. These rooms shall serve as a point for delivery for drivers.

## **Initial List of Functional Requirements**

1. General User
  - 1.1. A general user shall be an unregistered user, a registered user, or admin
  - 1.2. A general user shall be able to browse the restaurants
  - 1.3. A general user shall be able to search using food categories or cuisines
2. Registered User
  - 2.1. A registered user shall log into their account
  - 2.2. A registered user shall remain as a customer, or opt in to be a delivery driver or a restaurant owner
  - 2.3. A registered user shall have an email and a password
  - 2.4. A registered user shall be able to reset their password
3. Admin
  - 3.1. An admin shall be the only user that shall approve restaurants
  - 3.2. An admin shall be able to approve uploaded photos by restaurant owners
4. Customer
  - 4.1. A customer shall register with a valid email address (sfsu.edu)
  - 4.2. A customer shall be able to place a food order
  - 4.3. A customer shall choose the location where the food will be dropped off
  - 4.4. A customer shall have a payment method
5. Driver
  - 5.1. A delivery driver shall be able to view the map of the school
  - 5.2. A delivery driver shall be able to set the time they are available to deliver
  - 5.3. A delivery driver shall turn their availability status of or off
6. Business Account
  - 6.1. A business account shall be a general user.
  - 6.2. A business account shall be linked to one or more business account
7. Payment Method
  - 7.1. A payment method shall be linked to the customer's gator pass.
8. Order History
  - 8.1. An order history shall have all the previously ordered foods along with the price, time and date
9. Order
  - 9.1. An order shall have the time the order was placed, the restaurant name, the estimated time of arrival, the price and the food that was ordered.
10. Order List
  - 10.1. An order list shall contain menu items
11. Menu
  - 11.1. A menu shall have one or more food option, description and the price

- 11.2. A menu shall have one or more relevant pictures
- 12. Menu Item
  - 12.1. A menu item shall have a description
  - 12.2. A menu item shall have zero or more photos
  - 12.3. A menu item shall have a price
  - 12.4. A menu item shall have keywords
- 13. Photo
  - 13.1. A photo shall have a relevant name
  - 13.2. A photo shall be approved by an admin
  - 13.3. A photo shall be viewable by any general user after approval
  - 13.4.
- 14. Restaurant
  - 14.1. A restaurant shall be able to register their restaurant
  - 14.2. A restaurant shall upload many photos of their dishes
  - 14.3. A restaurant shall be able to set the prices for their dishes
  - 14.4. A restaurant shall be able to accept food requests
  - 14.5. A restaurant shall be able to add or delete items from their menu
  - 14.6. A restaurant shall have at least one or more phone number
  - 14.7. A restaurant shall have one or more addresses
  - 14.8. A restaurant shall link itself to up to three chose categories
- 15. Category
  - 15.1. A category shall be linked to zero to many restaurants
- 16. Pickup Point
  - 16.1. A pickup point shall have a name
  - 16.2. A pickup point shall have a coordinate points or a building name and a room number
- 17. Rooms
  - 17.1. A room is a pickup point with a building name

## **Non-Functional Requirements**

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0
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
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
7. The language used shall be English (no localization needed)
8. Application shall be very easy to use and intuitive
9. Application shall 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 email 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, Spring 2023. For Demonstration Only*" at the top of the WWW page nav bar. (Important so as to not confuse this with a real application).

## Competitive Analysis

✓ ✕

	UberEats	Doordash	Grubhub	GatorEats
Filters (cuisines/food type)	✓	✓	✓	✓
Delivery Specification	✓	✓	✓	✓
Recommendations	✓	✓	✓	✓
SFSU Delivery/Pickup Points ***	✕	✕	✕	✓
SFSU Discounts ***	✕	✕	✕	✓

GatorEats is a niche market that targets SFSU students, staff, and faculty specifically. It ensures quick delivery as the food will come from nearby and local restaurants. While the app is targeting first and foremost direct delivery to members of SFSU in various buildings and rooms on campus, the app also provides pickup points that will be well known or well traveled places for SFSU members to easily find and safely pickup their order from. Another key point is that every member that is registered with an SFSU email, will get discounts from local restaurants to both promote local business as well as encourage users to stay on our app.

## High-Level System Architecture and Technologies Used

Stack (SERN)-----

- Server Host: Amazon AWS
- Operating System: Ubuntu Server 22.04.1 LTS
- Database: mySQL Workbench
- Web Server Framework: Express.js
- Front End Framework: React.js
- Client-Side Runtime Environment: Node.js
- Server-Side Language: JavaScript

Additional Technologies

- IDE: VS Code
- Front End Library: Bootstrap

## Team and Roles

Student Name	Student Email	GitHub Username	Role
Andy Almeida	aalmeida1@gmail.com	pie240	<u>Team Lead</u>
Emily Huang	ehuang10@sfsu.edu	emhuang3	Front-End Lead
Melisa Sever	bsever@sfsu.edu	melisa48	QA/Documentation
Eunice Borres	eborres@sfsu.edu	eunmdb	Back-End Lead
Juan David Liang Liao	jliangliao@sfsu.edu	JDLiang100	GitHub Master

## Checklist

Task	Status	Description
So far all team members are engaged and attending team sessions when required	ON TRACK	
Team found a time slot to meet outside of the class	ON TRACK	
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	ON TRACK	
Github is organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)	DONE/OK	
Use of any GenAI tool like ChatGPT: say if you used ChatGPT or like and how and for what segment of Milestone 1 (brief paragraph). As per class policy: this is allowed as a help BUT you cannot copy and paste its output and claim it is your own text, you need to put it in quotes or modify it, and only for short sentences You also are responsible for accuracy of your submission, so any ChatGPT content needs to be checked by you	DONE/OK	The second paragraph of the executive summary was supplemented with the use of ChatGPT.