SW Engineering CSC648 Spring 2021

Gator Grub - Team02

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Milestone 1

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History Table	
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1. **Executive Summary:**

The motivation behind Gator Grub is to help San Francisco State University students, faculty, and staff order food using a delivery/pick up service dedicated to the SFSU Campus. We wanted to create a service that is safer and more convenient not just for the student and faculty at campus, but for the drivers as well. This is important because the students and faculty are so busy with work they need something more convenient without having to worry about their safety. We also wanted to give local restaurants an opportunity to expand their business.

In order to make the students and faculty of San Francisco State University safer, the drivers hired will be working students from SFSU. By doing this, drivers will already have access to the buildings by being a student and the delivered food will be handed by a fellow student. The student drivers will also have a more convenient and flexible job for their school schedule. A variety of restaurants will also be able to register and provide the students with diverse food choices which will help restaurants expand their business.

Our team consists of six San Francisco State University Students, each with uniquely diverse and creative minds. They have a clear sense of purpose and being SFSU students themselves, they understand its customers expectations. Each team member works effectively to achieve the teams goals and objectives and puts dedication in continuously learning and improving the overall teams performance.

2. **Personae and Main Use Cases:**

    a. Personae

Jane:	About Jane: • Jane is a 21 year old undergraduate senior at SFSU • Has lots of projects • Indecisive • Stays at school late at night studying Goals and Scenario: • At SFSU Library at 8pm studying. • Doesn't want to leave her spot and take a break to get food. • Jane wants other snacks and supplies from the convenience store.

Tom:	About Tom: • Tom is an SFSU department head. • Very picky. • Loves cooking Goals and Scenario: • Tom has many appointments with students. • Tom has no time in between appointments to grab lunch.

Joe:	About Joe: ● Joe is an SFSU student ● Joe has a hectic schedule and can't find a job that will support his schedule. Goals and Scenario: ● Joe needs money and a job. ● It is hard for Joe to find a job due to his inflexible class schedule. ● Joe needs to find a job where he can manage his own schedule.

Steve:	About Steve: ● Steve is a business owner in San Francisco. Goals and Scenario: ● Wants to acquire more recognition through more customers.

Sarah: 	About Sarah: ● Sarah is in charge of handling administrative functions at Gator Grub. ● Sarah has a hard time keeping track of what needs to be done. Goals and Scenario: ● Sarah wants to regulate what media is being published on the application by the restaurants.

b. Main Use Cases

Use Case 1 - Customer(student) - Ordering Food: Jane is in her last semester at SFSU. She is studying for her finals in the library. It is late at night. She is hungry and doesn't have time to leave and pick food up. She goes on Gator Grub and sees featured specials by various restaurants. Jane doesn't have to keep searching for a meal she wants and just picks from the displayed specials, saving her time. Jane is also in need of snacks and also orders from a local convenience store provided by Gator Grub. Jane submits her order and is then asked to login/register (lazy registration). After she logs in she is prompted to enter her location at school. The driver shows up with her order with no problem getting into the building and finding Jane's spot at the library.

Use Case 2 - Customer(faculty) - Ordering Food: It is 7am and Tom is in his office. He has a busy day ahead of him. Tom has no time to cook or go out to find a place to eat. Tom goes on Gator Grub and schedules his orders throughout the day. Tom has time to browse the application thoroughly and pick the meals he feels is the best. After he is done scheduling his order and is ready to checkout, he is prompted

to login/register (lazy registration). After he is logged in, Tom specifies his location at the school. The meals come on time and at the right destination. All Tom had to worry about was being in his office and paying.

Use Case 3 - Driver(student) - Delivering Food: Joe is a full time student at SFSU and he is in need of a job to support himself while living on his own. Joe registers as a driver for Gator Grub and is able to set up his own working schedule. Joe picks up an order. Using the provided detailed map of SFSU and Joe's familiarity with the campus already, the order is delivered on time. Joe makes it in time for his next class because he is already on campus.

Use Case 4 - Restaurant Owner - Registering A Restaurant: Steve is an owner of a Mediterranean Restaurant in the Sunset District of San Francisco. Steve wants his restaurant to be known to more customers. He makes specials to make customers happy and entice them to try out their foods but he needs help getting the word out. Steve registers his restaurant to Gator Grub and there he is prompted to list his menu items, hours of operation, etc. He is then able to list his specials and how long they are being offered for. More people order his special and start ordering more food from his restaurant.

Use Case 5 - Admin - Approving Restaurant Registration: Sarah is one of the admin in charge of approving restaurant registration and the media uploaded onto the application. Sarah is notified by Gator Grub on her admin account that a restaurant just registered their restaurant. Sarah goes over the restaurant contents and the media and finds nothing wrong and approves of the restaurant to be viewed on the application.

3. **List of Main Data Items and Entities - Data Glossary/Description:**

    1. Main Terms:
        a. Administrators: Team who maintains the application and its services to ensure optimal usage. Sub-items here include restaurants, customers, and delivery drivers.
        b. Customers: Only students, staff and faculty of SFSU can register an account as a customer. No sub-items here
        c. Restaurants: Local restaurants that have registered and been accepted can be listed in the service. Must be close to SFSU campus. Sub-items here include delivery drivers and customers.
        d. Delivery Driver: Only students of SFSU can be drivers and will have to register with a SFSU email address. Sub-items here include customers.
    2. Types of Users:
        a. Administrators
            i. Has access and will monitor all services of application.
                1. Registration Data: SFSU ID, Full Name, SFSU email, Login, and Password
                2. Administrators can only be added by other administrators (this process is internal, and so other users are allowed to sign up to be an administrator)
        b. Customers:
            i. Browse the website and search through restaurant pages, menus and reviews.
            ii. Create an account through the website.
            iii. Create, complete and track orders.
                1. Registration Data: SFSU ID, Full Name, SFSU email, Login, and Password
        c. Guests:
            i. Browse the website and search through restaurant pages, menus and reviews.

1. Registration Data: Will not be prompted, unless creating a customer/delivery driver account.

d. Delivery Driver:
   i. Has all the privileges of a customer, plus access to pickup and drop off locations.
   ii. All communication between restaurants, drivers, and customers will happen through the app so no phone numbers (personal details will be shared).
      1. Registration Data: SFSU ID, Full Name, SFSU email, Login, and Password

e. Restaurateur:
   i. Can create a restaurant account which allows them to post a menu, take orders, and similar communication metrics to the delivery driver
      1. Registration Data: Restaurant Name, Associated operation permits, Restaurant Address, Phone Number, Email, Login, and Password

3. Entities:
   a. Restaurants:
      - This will include attributes such as the name of the restaurant and its location.
   b. Pickup
      - This will include attributes such as when the order is available for pickup and the order ID.
   c. Delivery
      - This will include attributes such as the address the order will be delivered to and the order ID.
   d. Menu
      - This will include attributes such as the name of the dish, ingredients, and the price.

4. **Initial List of Functional Requirements:**

- SFSU Customers
    - SFSU Customers shall have the ability to search food through different categories such as cuisines and restaurants
    - SFSU Customers shall have the ability to register and log in
    - SFSU Customers shall have the ability to choose food from the menu of specific restaurant
    - SFSU Customers shall have the ability to specify the location of delivery in SFSU campus
    - SFSU Customers shall have the ability to choose delivery or pick up
    - SFSU Customers shall receive notifications on the update of their order
    - SFSU Customers shall be able to specify certain options through comments on an order (e.g. no onions on a burger). Restaurants will be held to their comments and these comments will be displayed as part of the order, rather than something extra
    - SFSU Customers shall be able to reset their password if they forgot it
    - Unregistered users shall be required to register before placing an order
    - SFSU Customers shall have the ability to add desired menu items to checkout and later on be able to place their orders
    - SFSU Customers shall have a way to save past orders for a quick and easy order in the future
    - SFSU Customers shall be able to look at past orders to review order details such as food order, total price, tip, etc.
    - SFSU Customers shall have the ability to leave reviews on the performance of the transaction
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- Restaurants Owners
    - Restaurant owners shall have the ability to register their restaurants into the application
    - Restaurant owners shall be able to reset their password if they forgot it

    - Restaurants shall have the ability to update the estimated time of an order being ready for pick up or drop off. This can only vary by a standard deviation of five minutes
- Delivery Drivers
    - Drivers will be required to register their information for a specific restaurant before becoming a driver
    - Drivers shall be able to access order to deliver
    - Delivery drivers shall be able to reset their password if they forgot it
    - Delivery drivers will be able to update estimated time of arrival to delivery location by sharing their location with the application

5. **List of Non-Functional Requirements:**
    1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0. Application delivery shall be from chosen cloud server.
    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 (specifics to be developed in consultation with users e.g. Petkovic)
    4. Ordering and delivery of food shall be allowed only for SFSU students, staff and faculty.
    5. Data shall be stored in the database on the team's deployment cloud server.
    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. Application should 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 email clients shall be used.
14. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in the UI.
15. Site security: basic test practices shall be applied (as covered in the class) for main data items.
16. Application shall be media rich (images, maps, etc.). Media formats shall be standard as used in the market today.
17. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development.
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 2021 For Demonstration Only*" at the top of the WWW page. (Important so as to not confuse this with a real application).

6. **Competitive Analysis:**

Below is the competitive analysis of several websites with our web application Gator Grub which is in bold and marked as the shaded column.

Features	DoorDash	GrubHub	Uber Eats	Postmates	**Gator Grub**
Payment method	++	++	++	+	**++**
Availability	+	++	++	++	**+**
Delivery Speed	+	+	++	++	**++**
Restaurants options	+	++	+	++	**+**
Ease of use	+	+	+	++	**++**
Search	+	+	+	+	**+**
Map	+	+	+	+	**++**
Cart	+	+	+	+	**++**

Feature exist -> +
Superior feature -> ++

It is the main goal of this website to be able to satisfy our customer's needs and desires by providing top-notch recipes of some of our finest cuisines. Our website places a strong emphasis on convenience and prompt delivery. Since the website is mostly made for SFSU students it is not widely available and therefore the options of restaurants are limited.

7. High-level System Architecture and Technologies Used:

Server Host	AWS EC2 t2.micro 1vCPU 1 GiB RAM
Operating System	Ubuntu 20.10 Server
Database	MySQL v8.0
Web Server	Apache v2.4.46
Server-Side Language	Python v3.8
Additional technologies	Web Framework: Flask IDE: PyCharm

8. Team and Roles:

Patricia Sarno	Team Lead
Erik Chacon	GitHub Master
Affaan Ghazzali	Back End Lead
Danny Collan	Front End Lead
Edmund Manzano	Back End Team
Saloni Mahat	Front End Team

9. **Checklist:**

Item:	Status:
So far all team members are engaged and attending ZOOM sessions when required.	DONE/OK
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