SENG513 Final Project Report

El Sabor

Group 4

Jian Liao (30081230)

Kaynen Mitchell (30041485)

Osa Omigie (30008204)
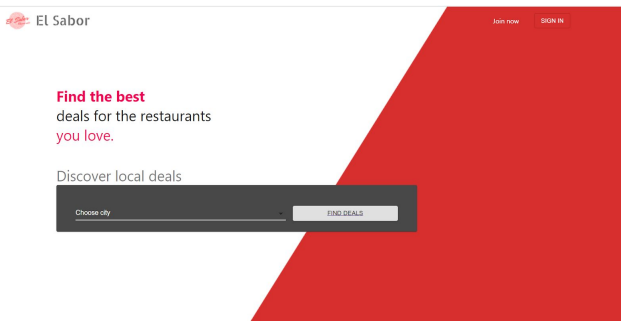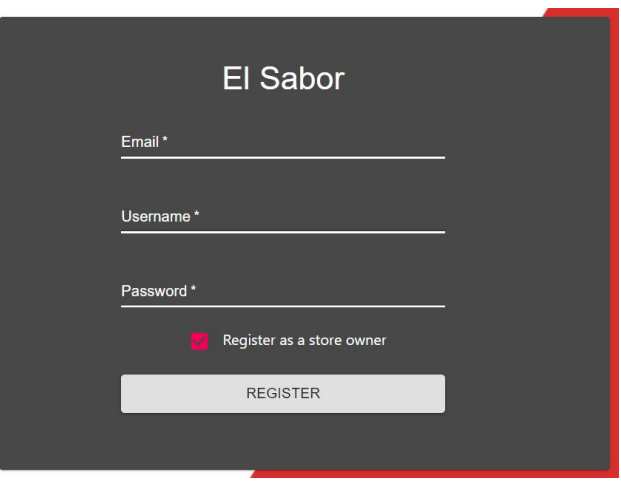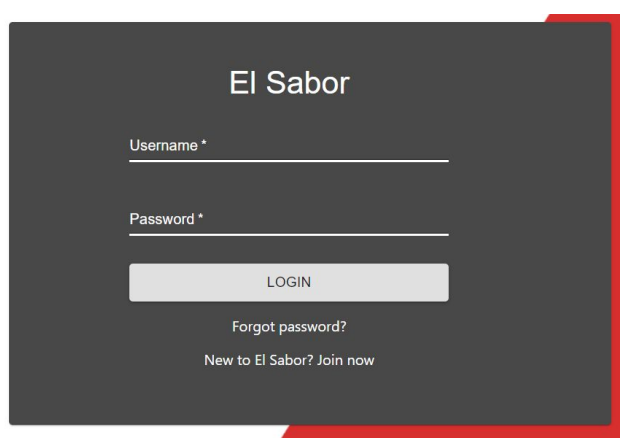
Manuel Rodriguez (30046317)

Introduction

El Sabor is an advertising platform for restaurants and bars to connect to their patrons through the use of limited time promotions. Our goal is to create a direct channel from local businesses to their consumers. These local establishments could increase their traffic through the use of new timed promotions which will result in higher levels of revenue. Through our platform restaurants are going to be able to expand their consumer base by gaining recognition from customers that use our platform and see their available deals. In addition, consumers will be provided a means to save money while going out for dinner or drinks.
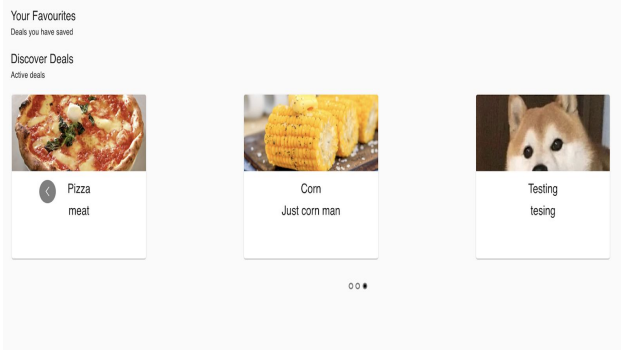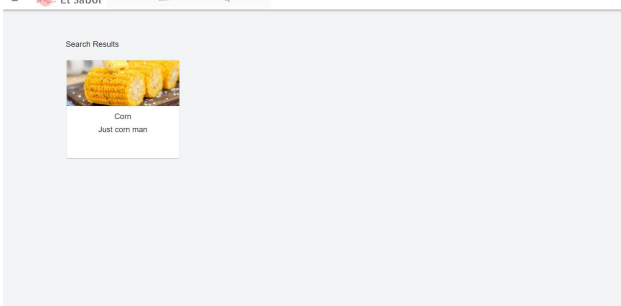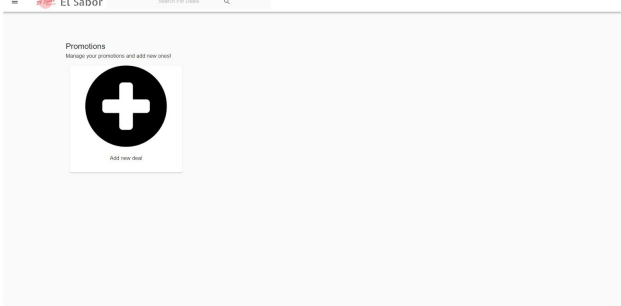
Restaurants may experience an unexpected amount of slow traffic during peak hours which leads to missed revenue targets meaning lost money. With El Sabor, restaurant managers are able to place timed deals available to customers on the platform to bring in more customers during these slow hours resulting in more revenue brought in for the business. Customers who find themselves spending too much money on a night out or find themselves wishing to go out for food but don't want to spend much money are now able to save money with timed deals and enjoy a nice meal at a local establishment.
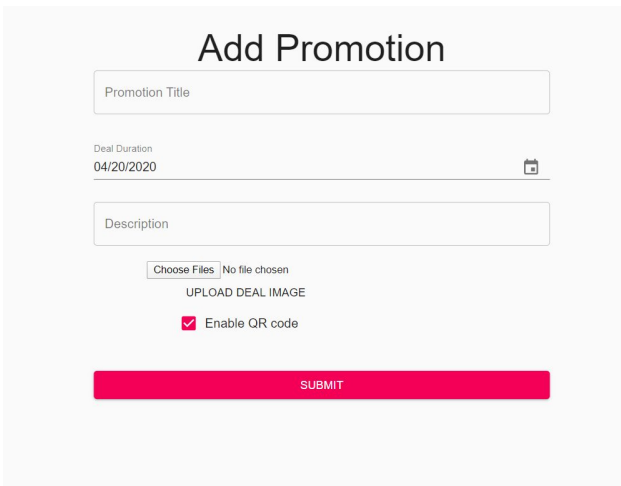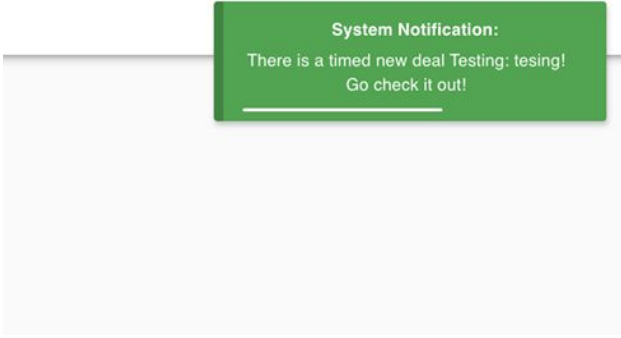
Customers who have registered for a regular account can save deals to their profile. They then have the option to redeem the deals they would like to use before they expire.

Restaurant managers that have registered for a restaurant owner account can place deals on the platform when they wish and set an expiry date on the deal to increase traffic coming in to their establishment and bring in more revenue. Since managers can be customers at other places, they can also save deals to their profile.

User Manual

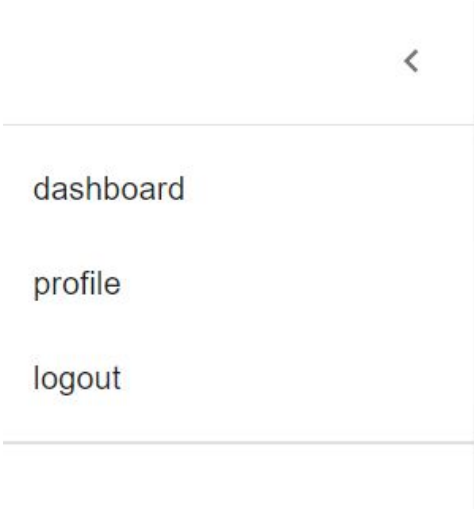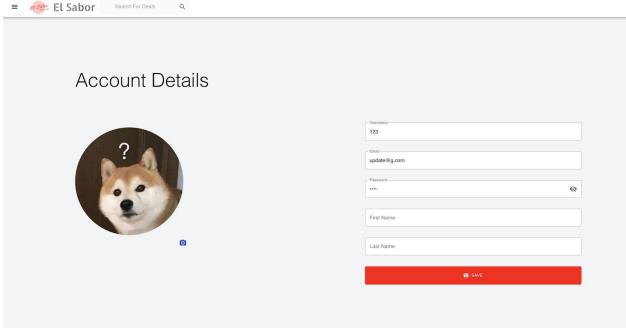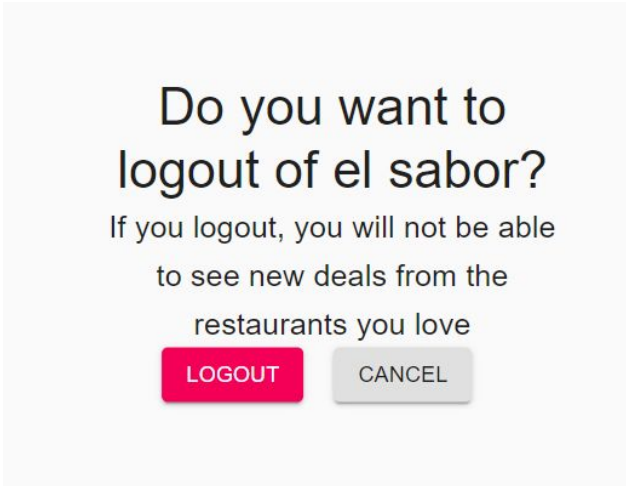|	
El Sabor **Find the best** deals for the restaurants you love. Discover local deals Choose city · FIND DEALS	● When a user first visits the application, they are presented with this welcome screen ● They are able to choose the city in which they would like to find local deals ● At the top right they have the option register for an account by clicking the 'join now' option or sign in to their account by clicking the 'sign in' option
El Sabor Email * Username * Password * ☑ Register as a store owner REGISTER	● When a user selects the 'join now' option, they are presented with this registration dialog ● The user can register for an account by providing an email, username and password ● They also have the option to register as a store owner, where they are able to add deals for their customers to use in their establishments
El Sabor Username * Password * LOGIN Forgot password? New to El Sabor? Join now	● This is the dialog a user sees when they select the 'sign in' option. ● The user can sign in with their username and password. If one/or both do not match their records in our database, they will get a message on their windows saying that the username or password did not match ● Users also have the option to register for an account by clicking on the 'New to El Sabor? Join now' option

- Once a user logs in, they will be presented with their user dashboard.
- The user can see deals they have saved to their profile on this page
- They are also able to discover available local deals, through the carousel of deals on the bottom half of the page
- On the header of the page, they are able to search for deals using the search bar of this header, they simply type in what kind of deals they are looking for and click on the search icon to see the results of their search on the search page

- When the user searches for a deal, their results would be displayed on this search page
- The deals that match their search would be shown on a deal carousel, if there are no deals that match their search then the search results will be blank.

- This is the manager dashboard that a restaurant manager has access to on their account as store owner.
- They are able to see the deals they have posted to the platform and haven't expired
- They are also able to add a new deal to the platform by clicking on the 'add a new deal' card

Add Promotion

Promotion Title

Deal Duration
04/20/2020

Description

Choose Files   No file chosen
UPLOAD DEAL IMAGE

☑ Enable QR code

SUBMIT

- When a restaurant manager clicks on the add deal card from their manager dashboard, they will be directed to this page
- A manager can fill out the form, to provide details about the new deal they wish to post to the platform
- On the deal duration portion, a manager can either manually enter an expiry date on the deal by filling the date on the portion or they can click on the calendar icon and select the date on the in-line calendar that appears after clicking it.
- They can also upload an image for the deal, using the 'upload deal image' to have an image associated with their deal (perhaps a picture of the item)
- They can also enable a QR code for their deal, so it's easy for customers and employees to scan

System Notification:
There is a timed new deal Testing: tesing!
Go check it out!

- When a manager creates a new deal (add a promotion), the system will send a system notification to all the connected clients (MQTT) saying that there is a new timed deal.

	● When a user click on the menu icon on the top left of the search header they are shown the following options ● With these options, the user is able to navigate the platform between their profile, their user dashboard and can logout by selecting the 'logout' option
	● Once the user clicks on the 'profile' option of the menu from the search header, they are taken to their profile page ● The email, username and password that the user used to register will show up on this page, they also have the option to add their first and last name ● Users also have the option to add a profile picture by clicking the camera icon and uploading an image file from their device
	● When a user clicks on the 'logout' option, they are presented with this message on the page ● If the user clicks on cancel, they will remain logged in and they will be taken to their user dashboard ● If they click on Logout, they will be logged out of their account and they will be taken to the sign in page will ● On this page, users still have the option to navigate to another page using the menu from the search header
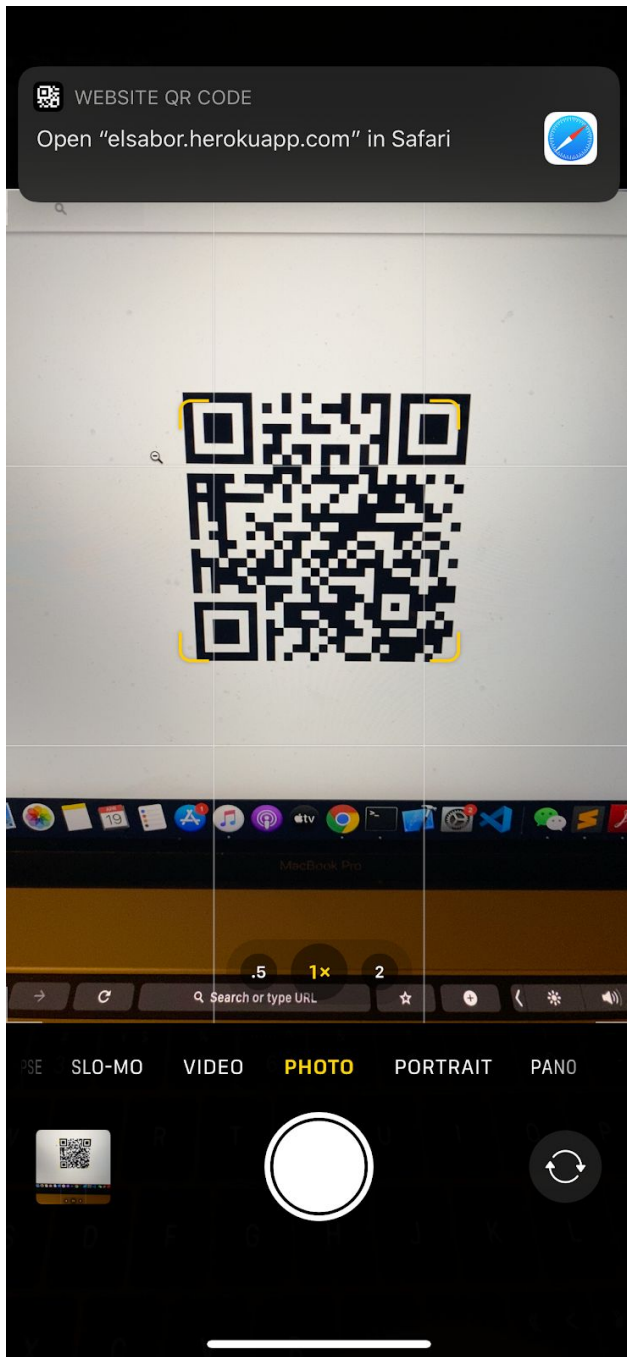
- User can view and click there saved deals or discover deals in the dashboard
- When the user clicks the 'card' of the deals on the user dashboard, and then click again on the QR code, the image will be enlarged and show a QR code for others to scan
- Manager can use their phone and pull out their phone system camera and scan the QR code. The manager will be directed to a page to verify this QR code for this deal
- If the QR code is valid (such as haven't expired), the website will show that this QR code is valid. Otherwise, the website will show this QR code is not valid (already expired).

Comparison of Project Proposal and Final Project (Optional)

Proposal	Final Project
Basic Features	
Identification & Authentication	A very basic identification & authentication system was implemented.
Search Mode & Discovery Mode	These features are implemented as the user will open their page to discovery mode after logging in, and can search from the search bar to get a search page with their results.
User profile	The user profile is implemented, the user can go into their profile and modify any piece of their details, including adding additional information such as first and last name and a profile picture.
Interfaces for business owner to update menu/coupons	This feature is implemented if the user signs in as a manager of a restaurant. They will be able to create new deals in their interface
Implementation of QR codes for deals	This feature is for the manager to scan the QR code of the deals to verify if the deals are valid. Manager enables the QR code when adding a new deal. The customer can save the deal to their profile and then can redeem it by having an employee scan the QR code to get the deal.
Publish & Subscribe (MQTT)	This feature is for the notification services in the system. Every single client will connect to the cloud MQTT server and subscribe to the topic of 'notification'. When the backend publishes messages to the MQTT server, the messages will be pushed to every connected client.
Live chat	This feature was not implemented due to a loss in team members and being deemed too complicated for the available time.
Likes/comments	This feature was not implemented as it was deemed low priority and not integral to the app.
Advanced Features	
LBS features	Due to reduction in team members, time constraints

Data Collecting	most advanced features were dropped early on, with analytics planned to be implemented for managers, but also scrapped.
Recommendation Algorithms	
User Analytics	
Live Streaming/Stories	
Paid membership	

Project Requirements

Requirement	Status
Client Side	The entire application is a single page interface
Use of HTML, CSS, and JS	We used HTML tags, CSS styling and Javascript files to build out UI
Browsers Tested	Chrome, Firefox, Safari
Mobile Support	Application is almost fully responsive with some minor non-responsive interaction with our menu drawer.
Use of Node.js	Yes, Node.js was used to build the backend of our application
Support of multiple user types	Two types supported: customers and restaurant managers/owners
User Authentication	Username and Password system
Persistence	Yes - managers can post deals on the platform. Customers and managers are able to save deals of their choice and they are visible when they log in again until the deal expires
Real-time interaction between users	Yes - when managers add a new deal, users receive a notification that a new deal has been added

Technologies Used

Technology	How we used the technology
Javascript	used to build the React components of our UI and functionalities
HTML + CSS	used HTML and CSS to implement our UI; through JSX
Firebase	used to upload and store images for profiles and deals
Heroku	Backend Hosting (Node.js), Database hosting, CORS Proxy Hosting
PostgreSQL	used to store the user data (SQL)
Cloud MQTT	the MQTT broker server for the publish/subscribe services
Node JS	Connecting and running our code on a browser.
React	Used to build the components of our complex UI
Material UI	Used for styling purposes
MQTT	used for the real-time notification services in the system which is based on publish/subscribe communication model

Deployment Instructions

Link: https://github.com/osagieomigie/elsabor

To run the project follow these instructions:

1. Make a new directory, call it ElSabor, and go into that directory
2. Open bash or a git bash in this folder and clone the repo with this command:
   git clone https://github.com/osagieomigie/elsabor

3. Enter the frontend folder, make sure Node is installed properly for the next commands
4. Open terminal or command line in this directory and run: **npm install**
5. After those packages have installed run: **npm start**
6. The web page should open automatically on localhost:3000