MIAMI

CSC 431

Quick Eats

Software Requirements Specification (SRS)

Team 08

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Version History

Version	Date	Author(s)	Change Comments
1.0	02/20/22	Kalpit Mody, Jack St. Hilaire Leah Harper	First Draft

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1. System Requirements

1.1. Functional Requirements

1.1.1. Sign Up

Title	Creating an Account
Description	This will be a form allowing users to create an account to store their preferred data and use our application
Priority	0
Precondition(s)	The user must have an email, phone number, or Google account.
Basic Flow	● User opens application ● First time user is prompted to sign up or log in ● First time user click sign up ● User is redirected to third party to enter information or enters email or phone number along with password information
Postconditions(s)	User is prompted to enter preferences information and the user has a working account.
Use Case Diagram	3.1

1.1.2. Log In

Title	Logging Into Account
Description	The user enters their credentials to gain access to the account they created.
Priority	0
Precondition(s)	The user must have an account set up.
Basic Flow	● User opens application ● An unlogged in user will click log in on the prompt ● The user is redirected to third party to enter credentials or they enter their email or phone number with password to log in
Postconditions(s)	The user is directed to the welcome page.
Use Case Diagram	3.1

1.1.3. Create User Profile

Title	Create User Profile
Description	The user enters personal information.
Priority	1
Precondition(s)	The user needs to sign up for an account.
Basic Flow	● The user enters information regarding ○ their favorite restaurants ○ name

	○ location
Postconditions(s)	The user will be able to get notifications about their favorite fast food restaurants
Use Case Diagram	-

1.1.4. View Welcome Page

Title	View Welcome Page
Description	The user will view this page as the central location of the application. Searches begin from this page.
Priority	0
Precondition(s)	The user needs to open the app and log in.
Basic Flow	● The user opens the app and logs in ● The user views the homepage to begin their search
Postconditions(s)	The user is able to use the application.
Use Case Diagram	3.1

1.1.5. View Restaurants on Map

Title	Viewing Restaurants in Map View
Description	The user browses a map that displays various fast food restaurants near them or in a specified location.
Priority	1
Precondition(s)	The user logs in and views the welcome page. The user must also allow location usage or enter a zip code to view the results.
Basic Flow	● The user opens the app and sees the welcome screen ● The user clicks the search bar ● The user enters the area that they want to search ● The user then views the results on a map
Postconditions(s)	The user is provided with restaurants in the area that they want. The user will click a specific restaurant to view the live wait time.
Use Case Diagram	3.1

1.1.6. View Restaurants in List

Title	Viewing Restaurants in List View
Description	The user browses a list that displays various fast food restaurants based on their search.
Priority	0
Precondition(s)	The user logs in and views the welcome page. The user must also allow location usage or enter a zip code to view the results.
Basic Flow	● The user opens the app and sees the welcome screen ● The user clicks the search bar ● The user enters the area that they want to search ● The user then views the results in a list

Postconditions(s)	The user is provided with a list of restaurants in the area that they want. The user will click a specific restaurant to view the live wait time.
Use Case Diagram	3.1

1.1.7. View Favorite Restaurants

Title	Viewing Favorite Restaurants
Description	The user browses a list of restaurants that they have favorited.
Priority	1
Precondition(s)	The user needs to be able to search and view search results in a list view.
Basic Flow	• The user opens the app and sees the welcome screen • The user clicks the favorites button
Postconditions(s)	The user then views their favorite restaurants with live wait times in a list.
Use Case Diagram	3.1

1.1.8. View Estimated Live Wait Times

Title	Viewing Estimated Live Wait Times
Description	The user views the estimated live wait time for a specific restaurant.
Priority	0
Precondition(s)	The user needs to search and click on a restaurant.
Basic Flow	• The user views restaurants in the map or list view • The user clicks the restaurant they want to view
Postconditions(s)	The user sees the estimated wait time for the specific restaurant. They decide to go to the restaurant now or maybe later.
Use Case Diagram	3.1

1.1.9. Ability to Search

Title	Searching for restaurants
Description	The user uses their location or enters a location to see fast food restaurants near them.
Priority	0
Precondition(s)	The user needs to open the app and be logged in.
Basic Flow	• The user opens the app and is logged in on the welcome page • The user clicks the search bar at the top of the screen • The user uses their current location or enters the area they want to search • The user can also enter a specific restaurant but is not necessary
Postconditions(s)	The user is able to view the results and pick the restaurant they want to see the estimated live wait time of.
Use Case Diagram	3.1

1.1.10. Ability to Filter and Sort

Title	Filtering and sorting results
Description	The user picks pre-built filters to narrow down search results to sort them and view the new results in the list view.
Priority	2
Precondition(s)	The user has to search for their results and view them in the list view first.
Basic Flow	● The user uses the search feature and views the result in the list view ● The user clicks the filter icon and a list of relevant predetermined filters and sorting options appear ● The user selects the ones that they like and click enter
Postconditions(s)	The user is provided with refined and more accurate search results.
Use Case Diagram	3.1

1.1.11. Log Out

Title	Logging Out
Description	The user is able to log out of their account.
Priority	0
Precondition(s)	The user must have an account and must be logged in.
Basic Flow	● The user clicks the settings icon ● The user scrolls down to the bottom and clicks the logout button
Postconditions(s)	The user is logged out of their account and is brought to the and is prompted to sign up or log in.
Use Case Diagram	3.1

1.2. Non-Functional Requirements

1.2.1. Efficient Filtering and Sorting

Title	Efficient and Quick Filtering and Sorting
Description	Filtered and sorted results should return in less than 500ms.
Priority	3
Applicable FR(s)	1.1.10

1.2.2. Useful Notifications

Title	Useful Notifications
Description	Users will be notified about relevant (exceptionally short, exceptionally long, etc) wait time lengths according to their preferences

Priority	3
Applicable FR(s)	1.1.7

1.2.3. Self-reported Data Analytics

Title	Self-Reported Data Analytics
Description	Users will be able to self report when drive through lines are long or short at various restaurants
Priority	4
Applicable FR(s)	1.1.8

1.2.4. Network Security

Title	Network Security
Description	The application will be protected from unauthorized access and misuse
Priority	1
Applicable FR(s)	1.1.3, 1.1.2, 1.1.1

1.2.5. User Data Privacy/Security

Title	User Data Privacy/Security
Description	All user data will be protected against unauthorized access through encryption
Priority	1
Applicable FR(s)	1.1.3, 1.1.2, 1.1.1

1.2.6. Efficient API Interactions

Title	Efficient API Interactions
Description	API interactions should return in less than .5 seconds
Priority	1
Applicable FR(s)	1.1.5

1.2.7. Search Result Time

Title	Search Result Time
Description	Search results should return in less than 5 seconds
Priority	1
Applicable FR(s)	1.1.9

2. System Constraints

2.1. Tool Constraints

2.1.1. Mobile Application Framework Constraint

Title	React
Description	We will be using the react framework to deploy both the backend and UI.
Priority	0

2.1.2. Amazon Web Services

Title	AWS cloud storage
Description	In order to maintain scalability and secure data storage capabilities, utilizing AWS cloud storage will be essential.
Priority	0

2.2. Language Constraints

2.2.1. React Framework

Title	React Native - JS
Description	A javascript framework that can be used to develop apps for multiple different mobile operating systems. Using this will allow us to develop an app efficiently and gives us the ability to develop for multiple platforms.
Priority	1

2.2.2. Database Interactions Language

Title	SQL
Description	In order to store and interact with data generated from users and our own processes, we need a language to communicate with relational databases that we construct.
Priority	0

2.3. Platform Constraints

2.3.1. Mobile Application Platform

Title	All platforms (IOS, Android, etc.)
Description	React will allow us to develop cross-platform, so we will release the app on multiple common platforms.
Priority	0

2.4. Hardware Constraints

2.4.1. Mobile Device

Title	Iphone, Pixel, Galaxy
Description	The hardware of the phones using our application will guide the features we include within it. For example, location services will be fundamental to the ability for our app to perform properly.
Priority	0

2.5. Network Constraints

2.5.1. Internet Connection Required

Title	The internet
Description	Without an internet connection, the functionality of our app would disappear. In order to know where others are, you must be able to communicate with our application through the use of the internet.
Priority	0

2.6. Deployment Constraints

2.6.1. Firebase deployment

Title	Deploy to app stores
Description	Each app store and platform needs to approve our release individually. Therefore, we need to consider rules and regulations imposed by these various groups.
Priority	3

2.7. Transition & Support Constraints

2.7.1. End of Life

Title	Class project ends.
Description	When we end this semester and class, someone else will have to take over the implementation of the project.
Priority	3

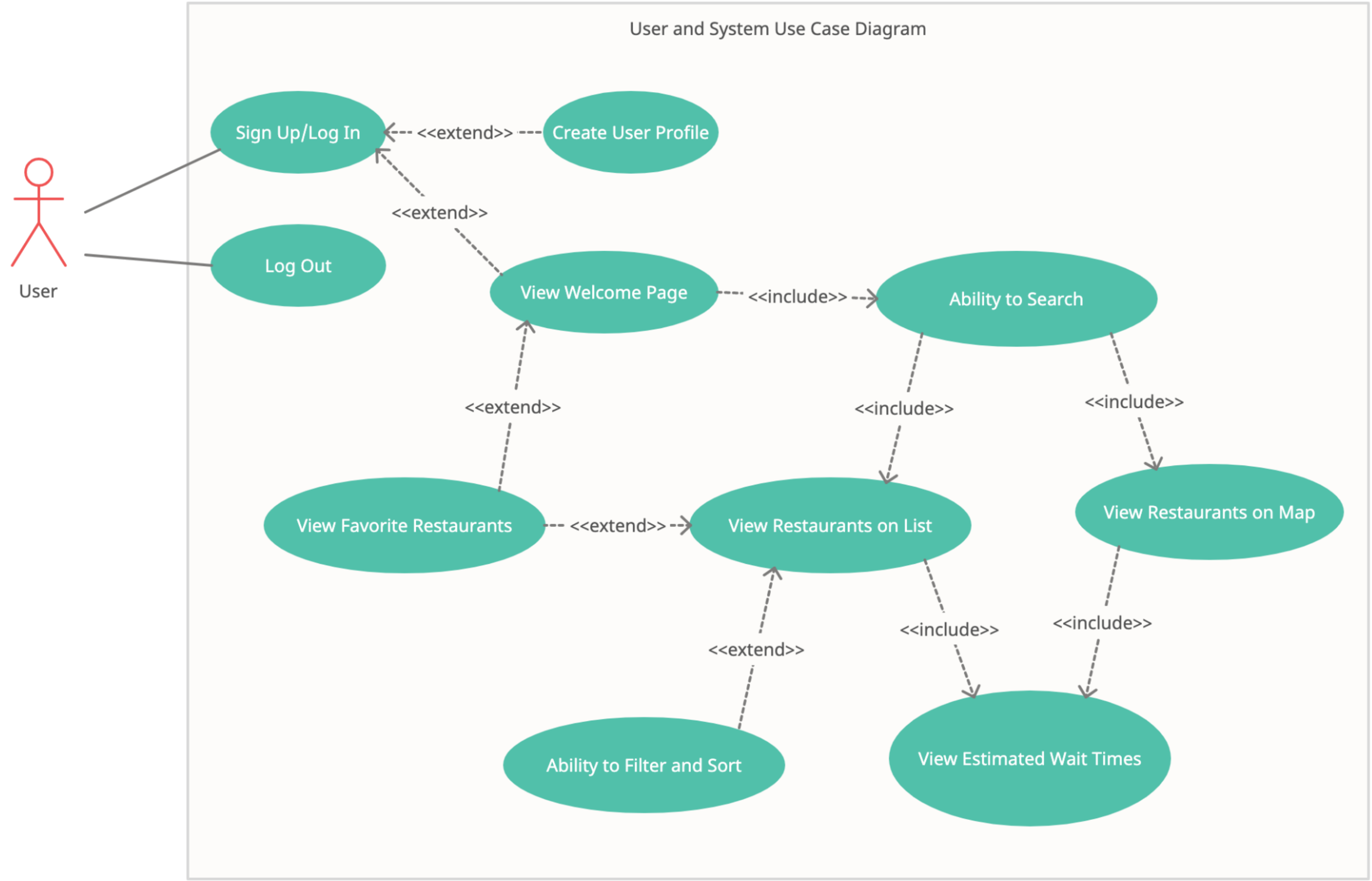
2.8. Budget & Schedule Constraints

2.8.1. End of Semester Timeline

Title	End of semester
Description	There is no budget for this project, and it will unfortunately have to end when this semester ends.
Priority	3

3. Requirements Modeling

3.1. User and System



4. Evolutionary Requirements

4.1. Functional Requirements

4.1.1. View Analytics

Title	Analytics - for optimization
Description	In order to increase the efficiency and subsequent usability of our application, we will collect data as the app is used. Over time, we will be able to find trends in wait times and use these to make better recommendations for our users.
Priority	4
Precondition(s)	Users need to go through the process of using our app for its intended purpose for a period of time. We also need to set up databases and systems to analyze this data.
Postconditions(s)	The data we gather is used to make recommendations regarding when to visit certain restaurants based on past trends.
Use Case Diagram	<Link or number, if present>

4.2. Non-Functional Requirements

4.2.1. Maintain accurate data

Title	Data Reliability
Description	This relates to user privacy and security, as well as the performance of our app. If the data we collect is inaccurate, we could see a direct impact on the functionality. If it is not secure we could be putting users' personal data at risk.
Priority	4
Applicable FR(s)	View Analytics