

SOEN342

Software Requirements and Specifications

Tasty Foodz Delivery App
(Phase 1)

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Team: It's not a bug, it's a feature

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GitHub Link

https://github.com/AndroidBiscuit/SOEN-342

Abstract

Today's app stores offer a variety of options for food delivery. Different companies offer different features and services to users. In this requirements document, our team is tasked with developing a food delivery application. We came up with Tasty Foodz and our goal is to help small businesses compete against franchise chains, whilst offering new, unique features as well. A background study was performed and a group session was held as an elicitation technique. The comparative study revealed that the most dominant players in the food delivery business are DoorDash, UberEats, and Grubhub; furthermore, there is a significant overlap in the features these companies provide, however, there are also many frustrations against these companies. Our goal is to alleviate some of these frustrations through our food delivery app, Tasty Foodz. The main product features that separate us from the three food delivery giants is that we make it easier for new businesses to sign onto our platform, and we provide a more robust and accurate estimation for food deliveries which should ease some of the frustration customers feel using other apps. [11]

1. Elicitation Techniques

1.1. Background Studies

A fast background check on the major food delivery apps is used to help us determine the objectives for our product. This allows us to understand the demand in the market as well as customer reviews. Delivery apps for the most part are highly successful and well-rated.

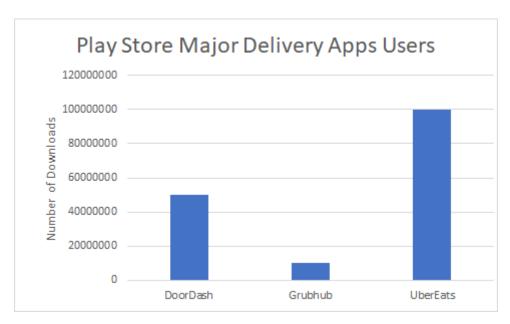


Figure 1. Number of food delivery app downloads on Play Store. [10]

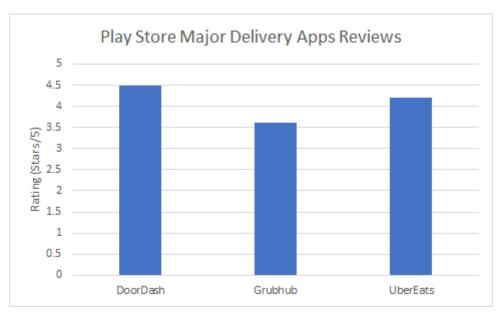


Figure 2. Ratings of food delivery app downloads on Play Store. [10]

Although everything seems to be going well for these big corporations, we see a rise in new delivery apps in app stores. This implies that not everyone is content with these big companies and are supporting the alternative small companies. During our research we learned that most complaints are delivery delays and customer service complaints. A survey was done on 1000 Americans and concludes the following:

- 66% of Americans would stop ordering from a company or delivery app following a late delivery, while 73% claimed they would order more frequently following an early or timely delivery.
- 51% of Americans blamed the delivering company or restaurant the most for a late delivery rather than the delivery service or driver.
- 54% of Americans have suspected their food delivery driver of eating their food or drinking their drink prior to delivery. [10]

1.2 Group Session:

As a group exercise, our team held an unstructured group session in order to brainstorm and find new ideas. This elicitation method was also a good opportunity to learn about each other and our vision. The following is a timeline as well as bits of the transcript that we found helpful to clarify our objectives.

In the beginning, we passed over the background studies. Then we brainstormed about what these companies are missing and what we would do differently. We concentrated on customer service issues.

Multiple ideas were proposed including more driver communication, direct client to restaurant communication, high efficiency navigation app, price reduction upon delays, etc. We then evaluated each of these ideas.

The user interface and the backend were briefly discussed afterwards. We spent a good amount of time talking about improving the application process for small businesses who would like to use our service.

We then felt the need to be innovative in order to stand out from the new apps

that had similar ideas as us. We decided to brainstorm for a unique feature for the app based on . Again, we had multiple ideas such as but not limited to automatic schedule delivery, keeping order tabs instead of individual payments, a flip the coin to help users in case of uncertainty, drone delivery.

These ideas were evaluated and towards the end of the session, we had a better idea of what our objectives are based on the background studies and our own experiences. We then concluded with the name of the application which will be Fast Foodz.

2. Comparative Study

During covid, food delivery apps saw an immense rise in success, but why? The pandemic made it so that restaurants weren't able to host customers in-person; this meant that people had to use food delivery apps more often, and it even meant that restaurants had to sign onto food delivery apps to keep their restaurants afloat. Despite the recent success of food delivery apps, there are growing frustrations and concerns amongst restaurants, delivery drivers, and customers using these apps. [11] Let us explore some of the reasons for these frustrations and provide solutions to them through our food delivery app, Tasty Foodz. The three most popular food delivery apps in North America are DoorDash, UberEats, and Grubhub. These food delivery apps are somewhat similar in the features they offer, but let's compare and contrast them against the features our food delivery app, Tasty Foodz, plans to offer. There is also significant overlap in the features we provide and in the features of these popular food delivery apps.

2.1 DoorDash [2]

- 2.1.1 DoorDash is a food delivery app company that first launched in the U.S. in 2013, but they expanded to Canada quickly after. DoorDash also holds the most market shares in the food delivery business. [3] Let us explore some of its core features.
- 2.1.2 DoorDash offers many features to customers, delivery drivers, and restaurants. Below, we list a few:
 - Online ordering and delivery tracking (for customers).
 - Customers log onto an intuitive homepage with a search bar, food filters, and their favorite restaurants listed right on the homepage.
 - Self-delivery is offered to restaurants, meaning restaurants enjoy a reduced commission fee, however, they have to employ their own drivers. [4]
 - A food delivery dispatch system, which coordinates drivers to pick up food from restaurants, and deliver it to customers in a timely manner.
- 2.1.3 A common theme amongst DoorDash, and the two delivery apps below is that: 1) customers are overloaded with options, 2) small businesses have it harder on these apps, and 3) the coordination of delivery drivers with restaurants often results in late deliveries. We will list some of our core features later on, and the thought process behind them is to address these issues.

2.2. UberEats

- 2.2.1.UberEats is another food delivery app, which can also be accessed through a browser. It's an offshoot of the Uber ride service.[8] The delivery platform was created in August 2014 in California as UberFRESH, then renamed to UberEats. A separate app was then created bearing the new name in 2015.[12]
 - 2.2.2.Some features that UberEats offers:
 - Online ordering and delivery tracking
 - Deals and promotions
 - Scheduled orders
 - Restaurant management to view orders and bills and edit their menus.[1]

2.3 Grubhub [5]

2.3.1 Grubhub is another large player in the food delivery business. It was founded in 2004, and although it is very similar to DoorDash and UberEats, it arguably has the most complaints levied against it. [6]

- 2.3.2 Some features that Grubhub offers:
 - It has an online ordering and delivery tracking
 - It offers discounts and promotions
 - Food delivery dispatching
 - Order tracking
 - Alerts/notifications
- 2.3.3 Of these three food delivery apps, Grubhub has by far garnered the most criticism. The reason for this is that they place lots of pressure on restaurants to inflate the cost of their food. Whilst also disallowing these restaurants to lower their prices on different food delivery apps, or even for customers dining in; this is an attempt at monopolization but Grubhub has settled several lawsuits over this issue. [7] [9] This issue is more business-related, but there are software solutions to avoid things such as this.

All three of these apps provide similar features like food delivery and live tracking for customers. They all require a fee to use the app and they also pay delivery drivers. All three provide similar user interfaces and functionalities for users to set up their portfolio. The differences are in the less-visible details such as the upcharge placed on food items, the pay rates for delivery drivers, and the ease of signing up for smaller businesses, and how accurate the live tracking is; this is what gives rise to most of the frustrations against these food delivery apps. Drivers are unhappy with their pay, smaller businesses feel like they are in the shadows of fast food franchises, and customers are frustrated with late deliveries and/or missing items. [11] Let us see how our app attempts to alleviate some of these concerns.

3. Product Presentation

Our product Tasty Foodz is a food delivery app projected to launch in 2023. This product will function as a food delivery application for mobile devices. It was created in the hopes of satisfying stakeholders (customers, drivers, restaurants) gripes with common food delivery apps, such as the ones presented above.

Tasty Foodz has many similar features when compared to those 3 apps, such as:

- Online ordering and delivery tracking (for customers).
- Offering discounts and promotions
- Order tracking
- Food delivery dispatching
- Pick up orders

However, it has some very advantageous and helpful new features for all the clients, such as:

1.1. Simple application process for new businesses

Almost every existing, and popular restaurant has access to food delivery applications, which is not the case for new businesses.

Fortunately, Tasty Foodz will have a simple process for all those new businesses such as local restaurants, or even small restaurants that want to deliver food. Those restaurants will now be able to sell and deliver their foods via our app.

By implementing that feature, customers will be able to order food from many more restaurants and it will let those new businesses have more visibility to more customers. This will also benefit professional delivery drivers, by giving them a more steady stream of work. This also ties them to new businesses, improving deliveries.

1.2. Faster delivery

One of the major problems for food delivery is the delivery time for food. This issue affects not only the customers but every user of the app.

Effectively, this problem occurs due to the long distance between the restaurants and destination that the drivers must travel. Sometimes, drivers have to travel like 2 hours between two orders.

This fast delivery feature will optimize the time-distance for the drivers by prioritizing a driver to restaurants located near him. In other words, drivers will be assigned to the restaurant closest to them. This will avoid them to waste time and to be more efficient, which will also avoid long waits for customers to receive their foods.

1 3 Virtual waiter

By offering users binary choices such as "Would you like sweet or salty", the user engages in a game of choices where the algorithm can narrow down what they really want based on inputted data. This would simulate having a waiter/waitress at a table to offer helpful suggestions.

Using this feature, we can also offer discounts if the user decides to order what we offer, incentivising re-use, as well as curing user indecisiveness.

1.4. Application visual flexibility

By tying the application theme to the system, we can ensure users get the best experience possible. For example, if a user has a large 15 point font and dark mode enabled for their phone, these details will carry over to the app. This creates comfort and for those with disabilities, it makes the app less overwhelming and accessible.

1.5. Direct user messaging to businesses

By allowing businesses to opt into direct messaging with customers, custom orders are possible. This would help bring in businesses which need quotes and conversations with clients to create custom products they would want. For example, a customer can message a cake business with their exact needs, and the business can quote them directly. Creating a seamless experience.

4. Conclusion

Overall, sprint 1 was a success although we ran into some obstacles. It was hard to figure out what requirements we wanted for our product at first, but the elicitation techniques helped.

We used two different elicitation techniques to facilitate the process of gathering requirements. Firstly, we did a quick background study to see what the popular food delivery apps were doing. Secondly, we had a group brainstorming session where we discussed the problems with common food delivery apps, and then we thought of how we could improve upon those.

A key success in our requirements gathering is that we considered the viewpoints of multiple stakeholders, but we needed a comparative study in order to do this effectively. We analyzed the main features that the three most popular food delivery apps in North America (DoorDash, UberEats, and Grubhub) provide, and we found that these apps provide very similar features. These include delivery tracking, an intuitive UI for customers, and a dispatching system to coordinate delivery drivers and restaurants. A common pitfall of all three apps is that there is an abundance of food choices for customers, small businesses are overshadowed by large fast food chains, and delivery estimates are not always accurate; these are a great source of frustrations for delivery drivers, customers, and food restaurants but we address this with our product.

Our product features include a simple application process for new businesses, faster delivery and more accurate delivery estimates. We also improve upon the ease of use for customers using the application, and we consider the experience of different stakeholders. We hope that the end result of this is an increase in the satisfaction of customers, restaurants, and delivery drivers who use our app.

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