Project Deliverable H: Prototype III and Customer Feedback

GNG 1103 – Engineering Design

Team A14

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Abstract

A third and final prototype was succesfully developed on Thunkable with partial functionality. Using the feedback received from the prototype II testing, most of the main functionalities which include logging in/signing up, navigating through the 4 main pages (home, search, orders, account) , and being able to process the first half of the order up until order confirmation is mostly completed. Testers used for previous prototypes were called in again to test the third and final prototype. Aside from the positive feedback on the application’s functionality and ease of navigation through the pages, there was also much negative feedback on some of the pages’ layout on Thunkable. With the use of Thunkable, many restrictions with creating an aesthetically pleasing application were encountered which resulted in a less desired design layout and format compared to the previous deliverables. With this feedback, as part of future steps and plans for improvement, the team has a clear idea of what to further focus on and implement for the final product.

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# Introduction

Upon the completion of a second prototype along with its accompanying test feedback and suggestions for improvements, the team moved forward with a final third functional prototype containing as many functional features shown in the second prototype that could be implemented within 2 weeks’ time. This report contains the contents of deliverable H which includes a brief overview of the type of final prototype that was built, the results and feedback of the prototype tests, as well as an analysis of the results and future plans for further implementation and improvements that could be made for the final product.

# Prototype III Testing Plan

Unlike the test plan used for the second prototype that only tested the design layout and overall aesthetics of the application, the test plan to be used for the third and final prototype will be similar to the test plan used for the first prototype. This is because unlike the first two prototypes which were built with MS PowerPoint using hyperlinks to simulate the page navigation and functions of each feature; the third and final prototype will have actual functioning features and page navigation programmed with block code. Therefore, user experience which includes the ease of navigating through the different pages to access certain functions, and app intuitiveness must be tested again to catch any coding bugs or errors.

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# **Table 1:** Prototype III test plan based on the template provided in “Lecture 11-Prototyping Test Plan”

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **Test Objective**  **(Why)** | **Description of Prototype used and of Basic Test Method**  **(What)** | **Description of Results to be Recorded and how these results will be used**  **(How)** | **Estimated Test duration and planned start date**  **(When)** |
| 1 | **Testing the UI**  Testing for the application’s overall Thunkable design layout.  The **objective** is to **receive feedback on the functional app design** (e.g. colour theme) a**nd layout of the prototype**. | * Experimental and focused. * Only focusing on the design layout aspect of the application and the new colour and design layout aesthetics. | * Results will be recorded in a table on a scale of 0 - 5, with 0 being terrible and 5 being the best. * Testers will be provided with all the final prototype III pages of the application for them to evaluate. * For any given value below 4/5 , the tester will be asked to provide a reason and a way to improve on the overall aesthetics or design. | * Upon completion of the final prototype, the testing will take 10 minutes in total. 5 minutes will be for the tester to go through each page of the final prototype, and the other 5 minutes will be dedicated to receiving feedback and suggestions for improvement by the user. |
| 2 | **Testing the UX**  Testing for how intuitive the application is and its ease of access as well as usability.  The **objective** is to **find any coding bugs and errors** as well as **receive feedback and constructive criticism** on what could be **changed or improved**. | * Experimental and comprehensive. * Will test the application as a whole in all aspects of usability. | * Results will be recorded in a table on a scale of 0 - 5, with 0 being terrible and 5 being the best. * Testers will be given a series of short tasks to complete on the final prototype with little to no assistance. * For any given value below 4/5 for any of the short tasks, the tester will be asked to provide a reason and suggestions on how it can be improved. | * Upon completion of the final prototype, the testing will take 15 minutes in total. 2 minutes will be for the tester to go through each page of the final prototype; the other 8 minutes will be used to ask the tester to complete the series of short tasks, and the final 5 minutes will be dedicated to receiving feedback and suggestions for improvement by the user. |

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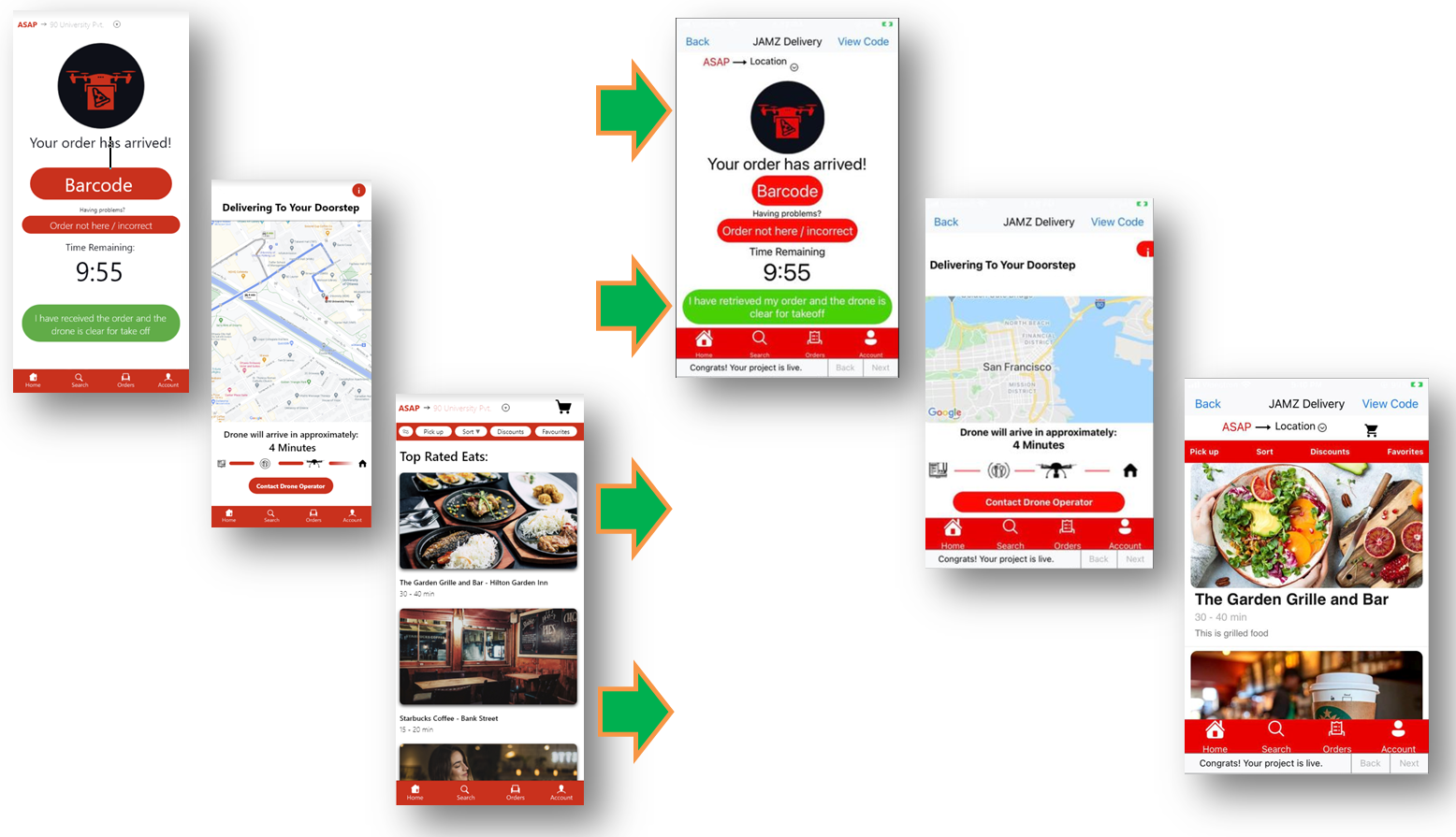
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# Prototype III

For this prototype, the comments and suggestions collected in our Prototype II test were looked at closely to see what could be improved upon. After looking at the common issues and reviewing certain features and aesthetics, we decided to add to our second design. These changes consisted of merging the sign up and login pages, adding scroll features to restaurant and items lists and implementing a login feature with accounts in Google’s Firebase.

We have begun the development of the functional app on the block-code development platform Thunkable. This platform is ideal for its accessible approach to app development and ease of use in terms of customization and functionality design. We have managed to develop a prototype with basic navigation features, a shopping cart, a login page, a tracking page with Google Maps API, and many other features that were of the client’s interest. This is a highly functional prototype for the heavy development of the full application that can be implemented in our future plans and next steps.

We decided to use an updated proof of concept before beginning page creation and coding processes to have clear expectations in mind. This allowed us to avoid having to make major adjustments and edits to visuals, functionality as well as avoid having our code potentially harm our goals of a successful prototype.

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**Figure 1** - Prototype III visuals of functioning features on Thunkable (right-side pages) compared to Prototype II visuals of non-functional features (left-side pages).

# Prototype Simple Analysis

Following the feedback we received from our third prototype, we decided to adjust certain aspects of the application to make it more user friendly and improve the user experience. These changes include : slight modifications in the colour scheme, changes in some pages set-ups to make them look more appealing, modern and easily accessible, and last but not least, the overall functionality of the application was greatly improved using the app-builder Thunkable. These adjustments rendered the application much more usable and technical.

# Prototype Stopping Criteria

With design day presentations commencing next week, the time to test the prototype is almost at an end. With that being said, it is still critical to receive feedback as the team still plans to implement a few more features into the final product before design day (see Future plans and Next steps). As a result, the final stopping criteria will be when feedback (which the team is satisfied with) is received on what the group deems to be the “final product” (meaning the team will not be adding anything significant anymore). Because of this, for the final test the team will continue the method of testing that has been used for our entire project: receiving 2 objective assessments from each group member.

Prototype III Test Results

**Table 2:** Prototype III test results (out of 5)

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# Tester’s Comments and Suggestions

Nicolas - User #1: **Liked the overall aesthetics** but thought there could be some **refinements on some of the images and layout**. Thought that the **process was simple to follow** but adding to cart and adding items was not obvious. Would have liked to see **more details for restaurants and restaurant items**.

Nicolas - User #2: Thought that the **overall layout and setup of the app was good** as it is like other food delivery apps, but thought it was **bare and simplistic in terms of features** and aesthetics. Thought that the **pages were easy to follow** and easy to use but needed a little bit of refinement. Idea is good but would have liked more functional features.

Josie - User #1: Thought the **layout could be spaced out a bit more**, some pages look nice, others such as the customer help page had small details with **image placement that could be fixed (crooked or unaligned)**. **Took a while to find out that you had to swipe left or right** to add or remove an item from the cart. **Navigating to the 4 main pages was easy enough**.

Josie - User #2: Overall colour scheme and **aesthetics are nice**. **Buttons and text look a little cramped for some pages**. Cool “add to cart” swiping function, just **didn’t realize you had to swipe to add to cart**. Some image/button **placements look a little lopsided/cut off**. Can easily navigate through main pages. Noticed **some non-functional features,** would’ve made the overall ordering process easier if all functional. What happened to **dark mode?**

Disala - User #1: The transition from Prototype II to Prototype III has **great improvements** with much **more functionality throughout the application**. Still **maintains a great, modern UI** and **keeps the same simple navigation** ability. Once again, light mode is **far more desirable to use** and the addition of more restaurants makes it seem **much closer to a final product**! Love the work!

Disala - User #2: I **love how easy the application is to use** and the additional features of scrolling through lists of restaurants and items **make the app feel complete**. The theme is now consistent through the whole app and **looks great**.

Sacha - User #1: Was able to **navigate the entire app with ease** but mentioned as far as aesthetics go thought that **some buttons appeared a bit oversized**. New sign in and login process was **very easy to set up** and **was not time consuming.**

Sacha - User #2: Noted the app was really starting to come together. Thinks the **swipe to add to cart was a cool feature** but noted that he **did not immediately recognize** that function. Overall very **impressed with the development between prototype II and III.**

Brunel - User #1: Loved the **improvement of functionality** but remarked that **aesthetics suffered a bit when we adapted to Thunkable**. Still found the overall process of **ordering a bit confusing** but was **very impressed by the new login/sign in setup**.

Brunel - User #2: Noticed a **huge improvement from prototype II to prototype III**. Thought that the **app was “awesome”** now that it was functional. **Would’ve liked the dark mode to still be present** but appreciated the new color scheme nonetheless. Also thought that some **pages could be more spaced out.**

# Analysis of Results

After carefully analyzing these reviews, one can easily come to the conclusion that with the use of a new app-making software, many issues arised regarding the new design layout of the application. However, in addition, many issues regarding the second prototype were fixed and corrected which rendered the application much more easy to navigate and easily accessible.

Based on the feedback of the last prototype, the team decided to prioritize the overall aesthetics of the application since many testers really appreciated it. However, given the short amount of time to learn a new app-making software as well as the limited designing freedom to customize the page layouts on Thunkable, the overall layout and aesthetics did not turn out to be as desirable as the previous prototypes built using Adobe XD. This is apparent from the feedback received about poor alignment of text and buttons as well as off-centered and cut-off images. If given more time, more attention to details will be put in the aesthetics and overall layout of the application on Thunkable.

Returning testers acknowledge a strong improvement in comparison to the very first prototype especially regarding the functionality and the navigation. Once again, many testers would have liked to be able to switch to a more modern “dark mode”, but unfortunately, the team has not yet been able to add this functionality, but it will definitely be a priority as part of the future next steps.

Overall, this prototype was much more fancied than the previous two in terms of UX however, the transition from Adobe XD to Thunkable encroached on the allure and appeal of the application. Therefore, the team will continue to refine this aspect while still searching for more feedback in the final product.

# Future Plans and Next Steps

Keeping in mind that design day is less then one week away; it is important not to put too much more on our plate as we should focus more on the actual delivery of our presentation. As a result, there are only a few more features that we might want to implement for our final product (but are in no way the highest priority at this point). They are: integrating Facebook Twitter and Google login authentication and creating a fully functional search bar for our search page. Offering the three additional methods of sign-in simply improves the user experience by offering the user preference as far as how they would like the login process to go. In addition, adding a functional search bar is a feature that will appeal to the client as well as improve the user experience.

# Conclusion

After completing our final prototype, the testers’ comments from Prototype II directly reflect how we responded to feedback from our prior prototype. In general, our feedback was positive, showing that a great amount of improvements were made to make the application functional and easy to use. However, more efforts can be placed in making the application layout look more visually appealing. The testers greatly appreciated the simplicity and ease of use carried over from both prototype I and II. As a result, we can now move on to developing our more advanced features such as an automatic search page and live location tracking of drones which will add on to our successful prototype that we have created using Thunkable. These next steps and future plans will help us exceed other competitors on the market and allow JAMZ to stand out as the most ideal food delivery service for rural-based customers in need.

Appendix

Thunkable Application: <https://x.thunkable.com/copy/74d4f0e2c685866148cfc0e212a7b6f8>