



Case study: Food delivery app design

Google UX Design Certificate Project

7 min read · Oct 8, 2021



Chinwe Uzegbu

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The image displays three mobile application screens for a food delivery service named "Yummies".

- Left Screen (Login/Sign Up):** Shows a dish of rice and curry. It has "Sign In" and "Sign Up" buttons. Below them are fields for "E-mail address" and "Enter password", with a "Forgot password?" link. A "Remember me" checkbox is checked. At the bottom are "Login" and "OR" buttons, followed by social media login icons for Google, Facebook, and Twitter.
- Middle Screen (Our Menu):** Titled "Our Menu" with tabs for "Meals", "Sides", and "Snacks". It shows a grid of six meal items: Spicy Noodles (N1,500), Shrimp Pasta (N1,800), Vegetable Curry (N1,200), Mixed Salad (N1,500), Chicken Pasta Salad (N1,500), and Beef Salad (N1,200). Each item has a small heart icon.
- Right Screen (Jollof Rice Detail):** Shows a large image of Jollof Rice with tomatoes. It lists the price as N1,200 and has a rating of 5 stars from 59 ratings. A "Description" section notes it's a rich and tasty rice dish made with reduced tomatoes, bell peppers, chilli peppers, onions, herbs, and seasoning. It also states that each serving contains 248 calories. Below this are "Recommended sides" for Fried plantain (N300), Coleslaw (N800), and Fried Chicken (N900). At the bottom, it shows a total of N2,000 and an "Add to Cart" button.

Designed by Chinwe Uzegbu

Food is essential to our well-being. And for some of us, eating is more than just a

way to stave off hunger. It's a hobby. As a self-proclaimed foodie, I'm naturally drawn to topics that are food-related. So when it came to choosing my first project for the Google UX Design Certificate, I had to jump on this one.

This case study describes my process of creating a food delivery app for a restaurant from concept to the final design.

The Challenge

Amidst the hustle and bustle of today's fast-paced environment, individuals struggle to find the time to cook at home. Some don't even have the time to visit a restaurant. The challenge was to find a way for these individuals to order and receive food at their own convenience.

The Goal

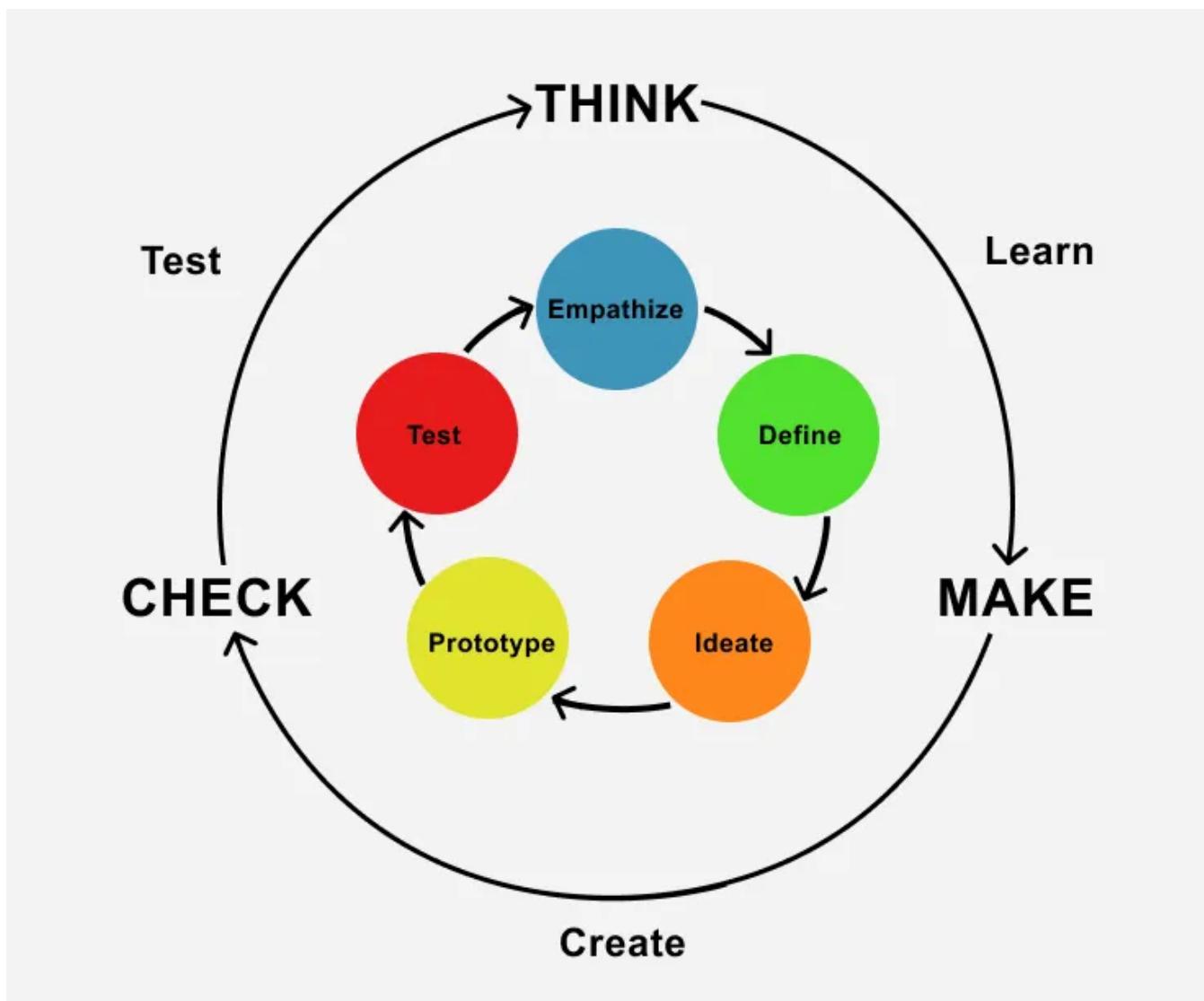
My goal was to design a mobile app that lets users order their meals quickly and easily from Yummies— a hypothetical restaurant.

My Role

User Experience Designer responsible for the app's design from concept to delivery.

My Design Process

I chose to use the lean UX Design framework for this project. By letting the validation of hypotheses guide my work, I could ensure that I was creating a product that truly meets the needs of people.



Lean UX Framework

Step 1: Understanding the user

User Interviews

The best way to truly understand the needs and motivations of the people I'm designing for is by hearing from them. So, I interviewed five (5) working adults aged between 18 and 65 years, who have some experience with ordering food online.

The participants' responses can be summarised as follows:

- 5 out of the 5 participants said they are most likely to use a food ordering platform when they need a quick way to quench their hunger.

- 4 out of 5 participants said they do not like platforms that are difficult to use.
- 2 out of 5 participants prefer to pay for their food after delivery.
- 1 participant, who is not fluent in English, said they dislike apps that are text-heavy.

Competitive Analysis

Before jumping into the process of creating my solution, I checked out some popular food delivery apps. I interacted with the platforms and read their customer reviews. This helped me identify some drawbacks in the existing solutions and opportunities for a better user experience.

See Competitive Audit report [here](#).

Pain Points

Four major pain points were identified from the foundational research phase:

- Time
- Ease of use
- Language barrier
- Accessibility

User Research: Pain points



Pain points: time, ease of use, language barrier and accessibility.

User Personas

Based on the information gotten from the foundational research, I created a persona whose demographics, motivations, goals and frustrations represent the needs of the users.

Meet Ejiro...

Problem Statement	"I like the idea of ordering my meals online, but the only issue is that I'm not tech-savvy"		
Ejiro is a busy artisan who needs an easy and less-techy way to order his meals because he is not tech savvy.		Ejiro Age: 45 Education: SSCE Hometown: Warri, Nigeria Family: Divorced, Lives alone Occupation: Plumber	Goals <ul style="list-style-type: none">★ To live a stress-free lifestyle.★ To be productive and efficient at all times Frustrations <ul style="list-style-type: none">★ "Food ordering apps should not be so complicated"★ "English is not my first language". <p>Ejiro runs a plumbing company. His typical week involves him working from Monday to Saturday. As a new divorcee, he is struggling to get used to sourcing for his own meals, as his wife used to prepare his meals. To make the process of getting his meals easier, he relies on restaurant mobile-ordering apps to order and receive his meals, especially when he is working. However, as someone who is not digitally savvy, he sometimes struggles with the meal ordering process. Language barrier is also a problem he faces as he is not fluent in English.</p>

Persona and corresponding problem statement

User Journey Map

Mapping Ejiro's user journey revealed areas where we can make improvements in his journey for a better user experience.

Action	Get App	Choose from menu	Confirm order	Checkout	Receive order
TASK LIST	Tasks A. Download App B. Create Account	Tasks A. Browse Menu B. Choose dishes C. Customise order	Tasks A. View cart B. Confirm total cost C. Confirm order	Tasks A. Enter delivery address B. Complete checkout C. Get order confirmation.	Tasks A. Make payment B. Check content of delivered items. C. Complete transaction.
FEELING ADJECTIVE	Excited about ordering lunch online. A bit stressed by the account creation process	Overwhelmed by the amount of dishes to choose from. Frustrated by the use of words & not enough images.	Excited about completing the ordering process. Stressed about struggling to read order details,	Relieved about completing the order process. Worried about how long it would take to receive the order.	Happy about receiving order.
IMPROVEMENT OPPORTUNITIES	Make the onboarding process quick. Make the account creation process quick and easy.	Add a section with most popular dishes to the homepage. More images to accompany texts.	Make the cart easily accessible at all times. Make order details clear and legible.	Make it possible to track order. Add accurate estimated delivery time to confirmation message.	Add in-app feature that notifies the restaurant if there is an error in the order.

Now we know the exact problems faced by our users. So, what next?

A goal statement was created to ensure a problem-solution fit.

GOAL STATEMENT

Our food delivery app will let users order their meals quickly and easily from Yummies Restaurant
 product (what) perform specific actions (what)

which will affect users who need access to ready made meals
 describe who the action will affect (who)

by letting them avoid the hassles of having to prepare the meals themselves or visiting the restaurant.
 describe how the action will positively affect users (why)

We will measure effectiveness by reading user reviews and tracking restaurant sales.
 describe how you will measure the impact

Context of use

From my research, I learned that people are most likely to use a food ordering

platform when they need a quick way to quench their hunger.

“You’re not you when you’re hungry!”

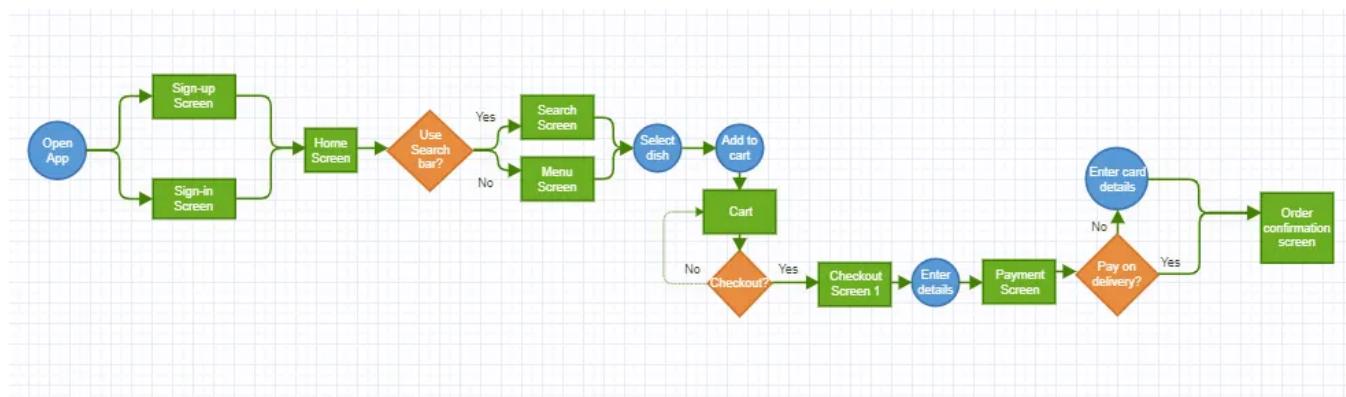
-Snickers ad

When we are hungry, our concentration level drops. Even the littlest tasks can seem daunting. Therefore, the goal was to create an intuitive design – one that lets the users complete their desired task with almost no mental effort.

Starting the design

User flow

To achieve my goal of creating an intuitive design, I mapped a user flow that prioritized recognition over recall. This was done by creating a path that is familiar to the users.

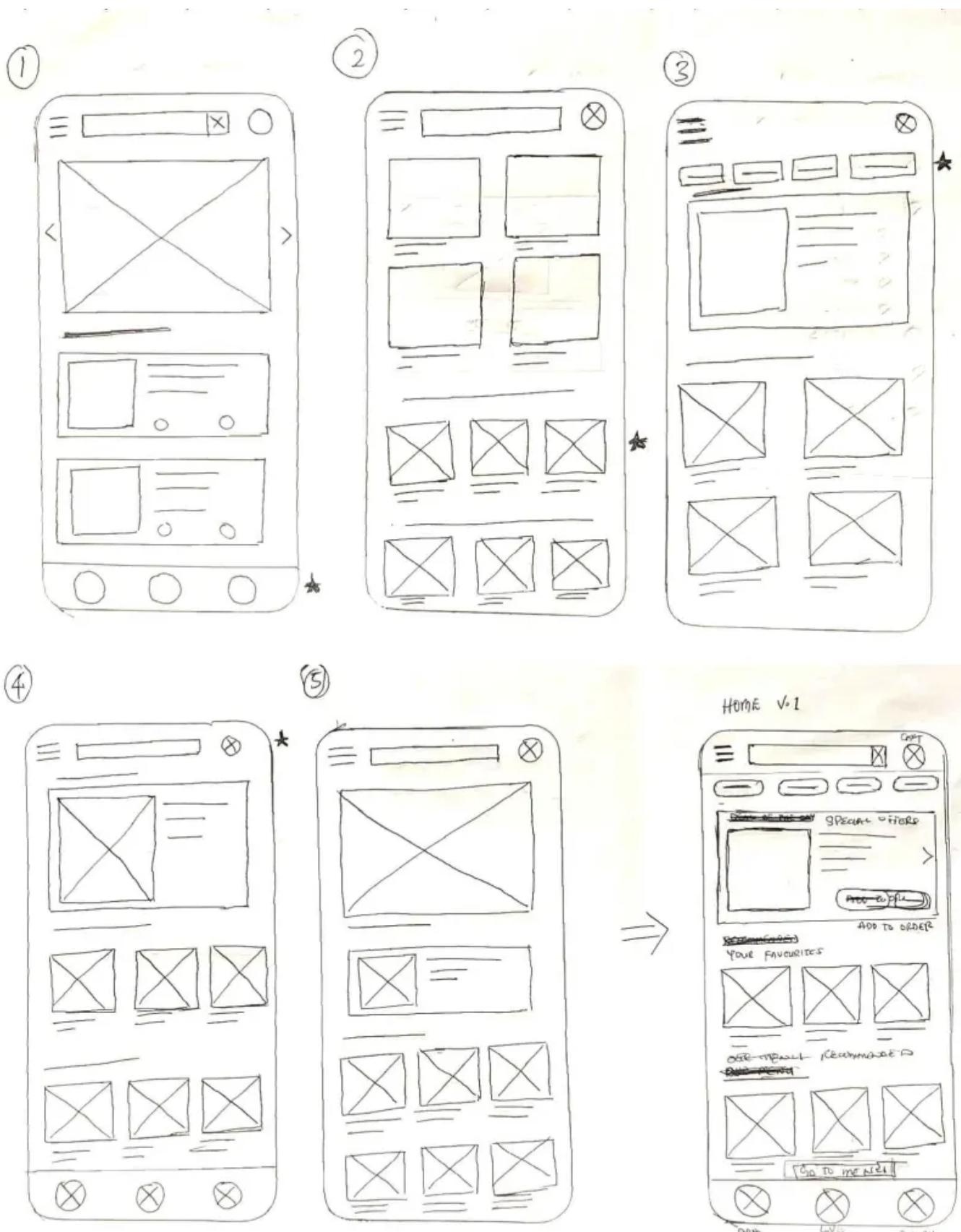


Visual representation of the steps a typical user will take to achieve their main goal.

Paper Wireframes

With the user flow mapped out, I then proceeded to sketch wireframes. Several iterations of each screen were drafted on paper to ensure that the elements that made it to the digital wireframes effectively addressed the user pain points.

For the home screen, I prioritized ease of use and a quick ordering process, to make the experience quick and stress-free for the users.



Several iterations of the home screen were sketched on paper. The stars were used to mark the elements to be used in the digital wireframes

Going digital

As the design proceeded to digital, I ensured that my designs were based on the feedback from my research. I created a digital version of the wireframes in Figma and proceeded to test it with users.

Usability Study (Round 1)

To get an early insight into the app's usability before the introduction of visual elements, I recruited 5 participants to test the low-fidelity prototype.

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By watching the participants interact with the app and hearing their thoughts, I was able to identify problem areas in the app's design. The results were noted down and an affinity diagram was used to identify patterns.

See detailed Usability Study Report [here](#).

A	B	C	D	E	F
Observations	Participant A	Participant B	Participant C	Participant D	Participant E
Understands the purpose of the app at first glance	1	1	1	1	1
Doesn't know the purpose of the app					
Knows how to navigate to a category	1	1		1	1
Confused on how to navigate to a category			1		
Knows how to select a dish	1	1	1	1	1
Has trouble finding the cart				1	
Knows how to complete the checkout process	1	1	1	1	1
Speaks in a positive tone	1	1		1	
Speaks in a frustrated tone					
Speaks in a confident tone	1				
Speaks in an angry/irritated tone					
Speaks in an indifferent tone			1		1
Not able to confirm successful completion of a task		1	1	1	1
Finds sign up process confusing	1		1		1
Confused on how to adjust quantity in cart	1	1		1	1
Finds payment process lengthy			1	1	1
Doesn't know how to edit profile	1		1	1	1

Ease of use

- B: Has easy to learn, simple, and clear comprehension of how to use
- C: Has easy to learn, simple, and clear comprehension of how to use
- D: Has easy to learn, simple, and clear comprehension of how to use
- E: Has easy to learn, simple, and clear comprehension of how to use
- A: Doesn't know how to edit profile
- C: Doesn't know how to edit profile
- D: Doesn't know how to edit profile
- E: Doesn't know how to edit profile

Time on task

- C: Finds payment process lengthy
- B: Finds payment process lengthy
- D: Finds payment process lengthy

Tone

- A: Speaks in a positive tone
- B: Speaks in a positive tone
- C: Speaks in an indifferent tone
- D: Speaks in a positive tone
- E: Speaks in a positive tone

Confusion

- D: Confused about how to adjust quantity in cart
- B: Confused about how to adjust quantity in cart
- E: Confused about how to adjust quantity in cart
- A: Confused about how to adjust quantity in cart
- C: Confused about how to adjust quantity in cart

The observations were noted down and an affinity diagram was used to group similar observations to form themes

Digital Wireframes

Based on the insights obtained from the usability study, I made some changes to the

digital wireframes to improve usability.

View low-fidelity prototype [here](#).



Digital wireframes of Yummies app after initial usability study

Refining the design

With the initial usability issues fixed, I proceeded to create mockups and a high fidelity prototype of the design.

The image displays a 4x3 grid of screenshots from a mobile food delivery application named "Yummies".

- Row 1:**
 - Home Screen:** Shows a dark background with a collage of food images and the "Yummies" logo.
 - Login/Sign Up - Sign In:** Displays fields for E-mail address and password, a "Login" button, and social media sign-in options (Google, Facebook, Twitter).
 - Login/Sign Up - Sign Up:** Displays fields for Full Name, E-mail address, Create password, a "Create Account" button, and social media sign-up options (Google, Facebook, Twitter).
- Row 2:**
 - Home Screen:** Shows a search bar, tabs for Meals, Sides, Snacks, and Drinks, a "Today's Special Offer" for "Yummies Special Burger" (N1,800), and a "Popular Now" section with Beef Salad and Spicy Noodles.
 - Menu Screen:** Shows a "Our Menu" tab, a "Meals" dropdown, and a grid of meal items: Spicy Noodles (N1,500), Shrimp Pasta (N1,800), Vegetable Curry (N1,200), Mixed Salad (N1,500), Chicken Pasta Salad (N1,500), and Beef Salad (N1,200). It also shows a "Recommended sides" section with Fried plantain, Cole slaw, and Fried chicken.
 - Your Order:** Shows a list of items: Jollof Rice (3 units, N3,600), Mixed salad (1 unit, N1,200), and Spicy noodles (1 unit, N1,500). Total price is N6,300. Buttons for "Add Items" and "Checkout" are present.
- Row 3:**
 - Order Summary:** Shows the order details: Jollof Rice (1,200 x 3), Mixed salad (1,200 x 1), Spicy noodles (1,200 x 1), Sub total: N6,000, Delivery fee: N1,000, and Amount payable: N7,000. It also lists the Delivery Address: No. 9 Victoria Estate, Jakpa Ward, phone: 08032187342. Buttons for "Edit Order" and "Proceed to payment" are at the bottom.
 - Payment - Choose your payment method:** Shows options for VISA, Mastercard, and PayPal. It includes fields for CARD NUMBER, NAME ON CARD, EXPIRY DATE, and SECURITY CODE. A "Pay on delivery" option is also available.
 - Payment - Confirmation:** A modal window displays a green checkmark and the message "Thank You! Your order has been placed successfully." It also shows the estimated delivery time: 2:45pm. Buttons for "Back to Home" and "Track Order" are present.
- Row 4:**
 - User Profile:** Shows a profile picture of Chinwe Uzegbu, her email (cuzegbu@gmail.com), and navigation links for Profile, My Orders, Privacy Policy, Settings, Help, and Sign Out.

Mockups

Usability Study (Round 2)

Another round of usability testing was conducted using the high fidelity prototype. By testing the design at this stage, I could observe an interaction that most closely resembles a real-life interaction with the final product.

Usability Study (Round 2): Findings

1

Poor colour contrast ratio

Contrast between colours in the design not high enough for users with low vision.

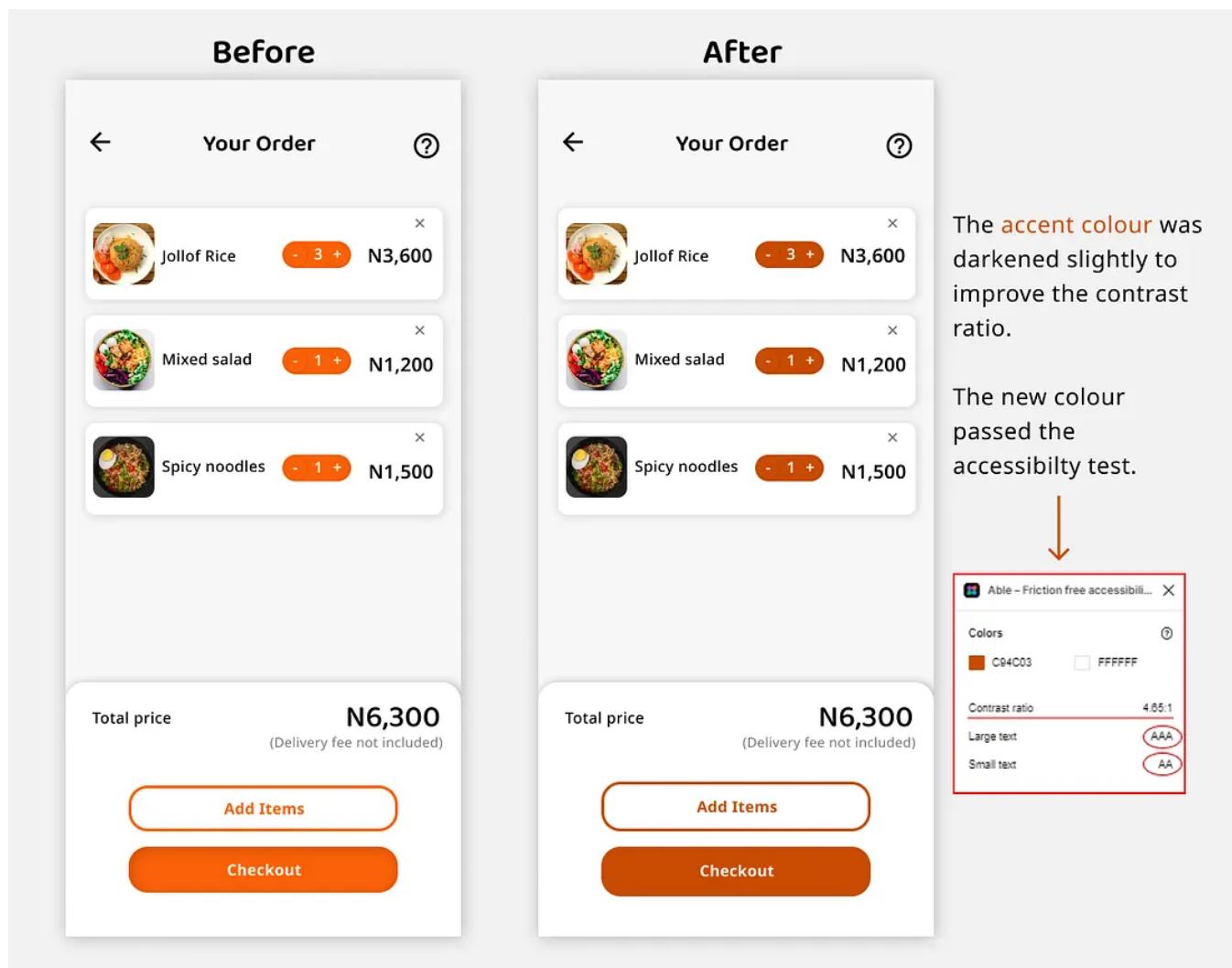
2

Consider returning users

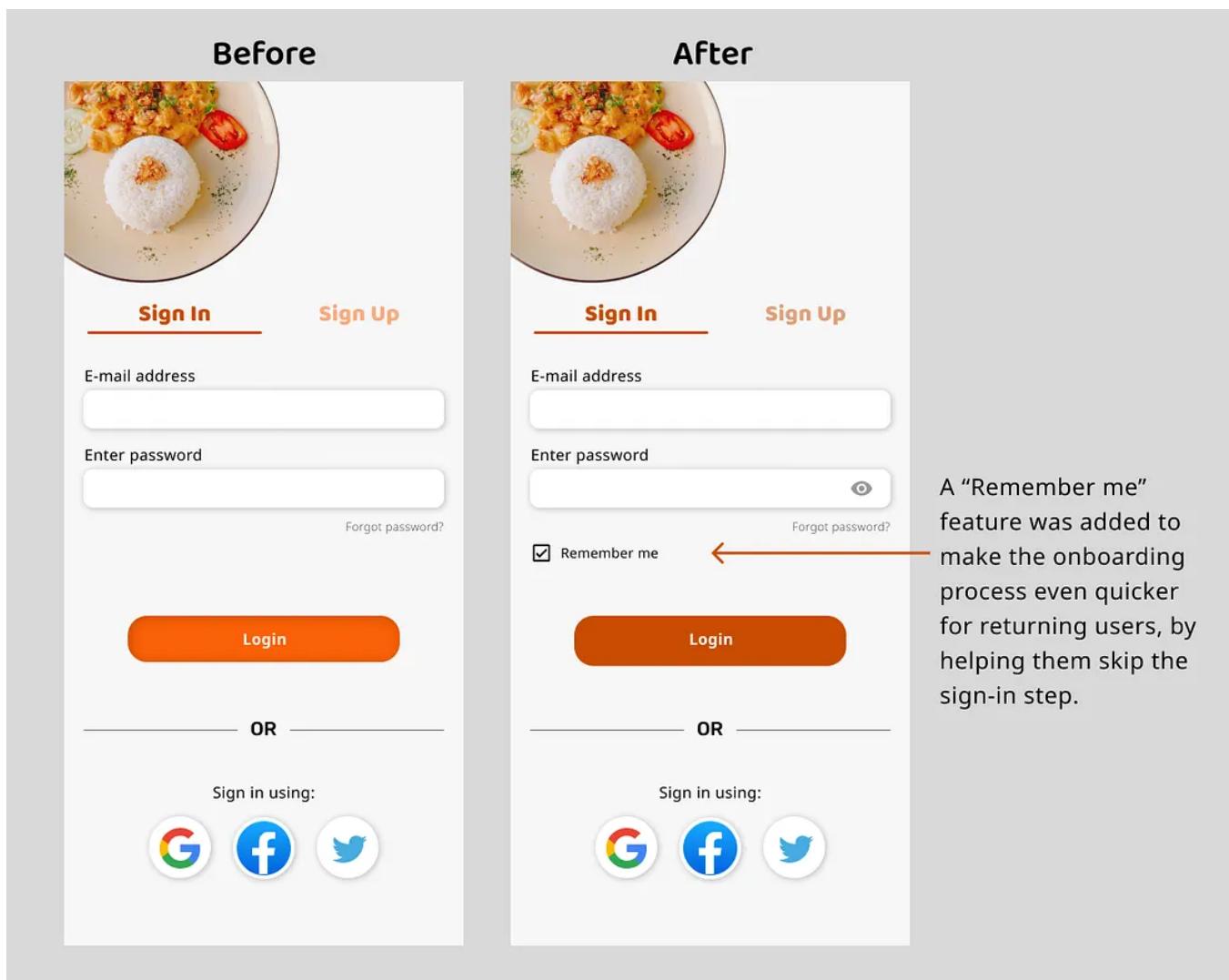
No considerations in place to make the onboarding process quicker for returning users.

Findings from the second round of usability studies

Changes made based on findings



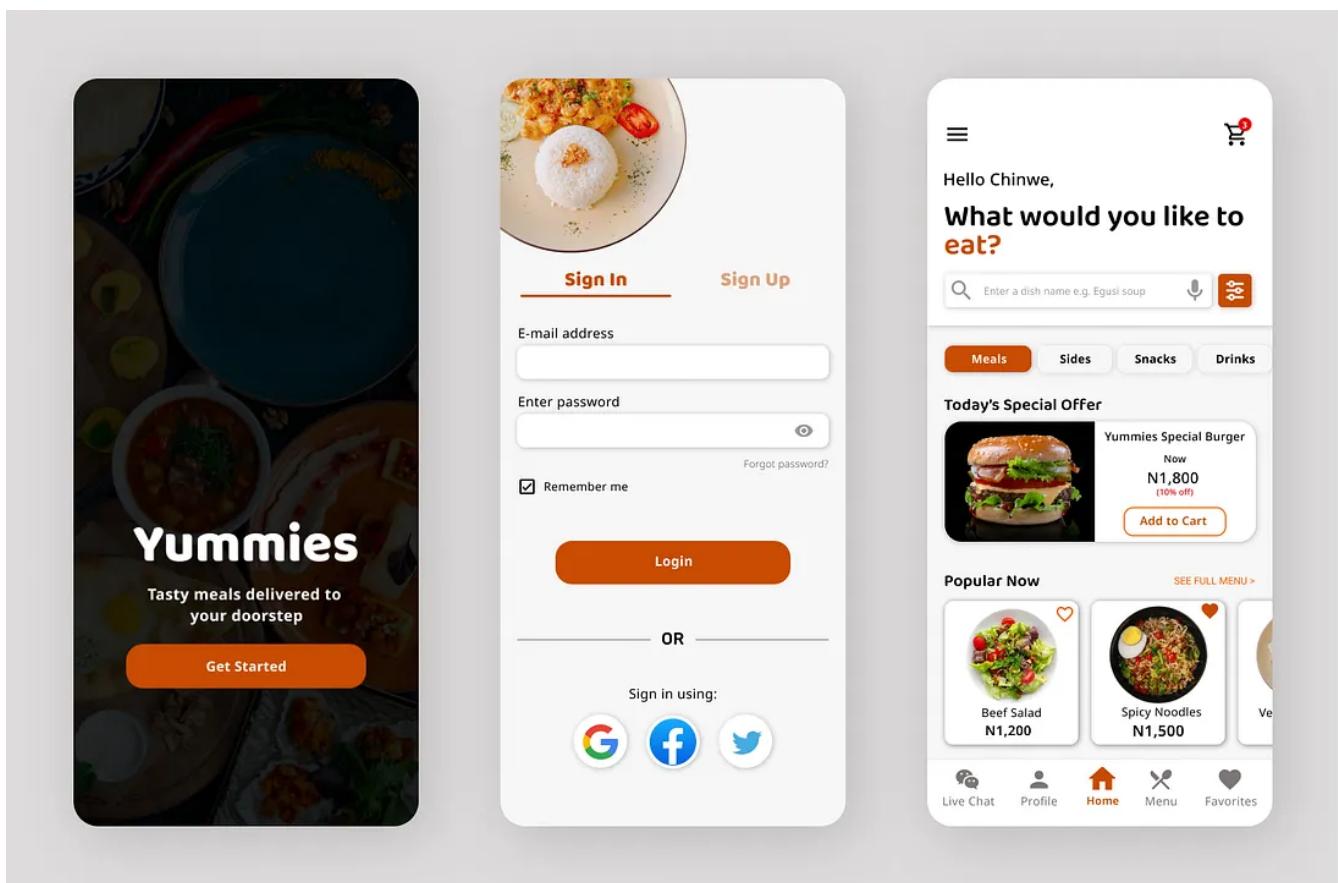
Improved colour contrast ratio



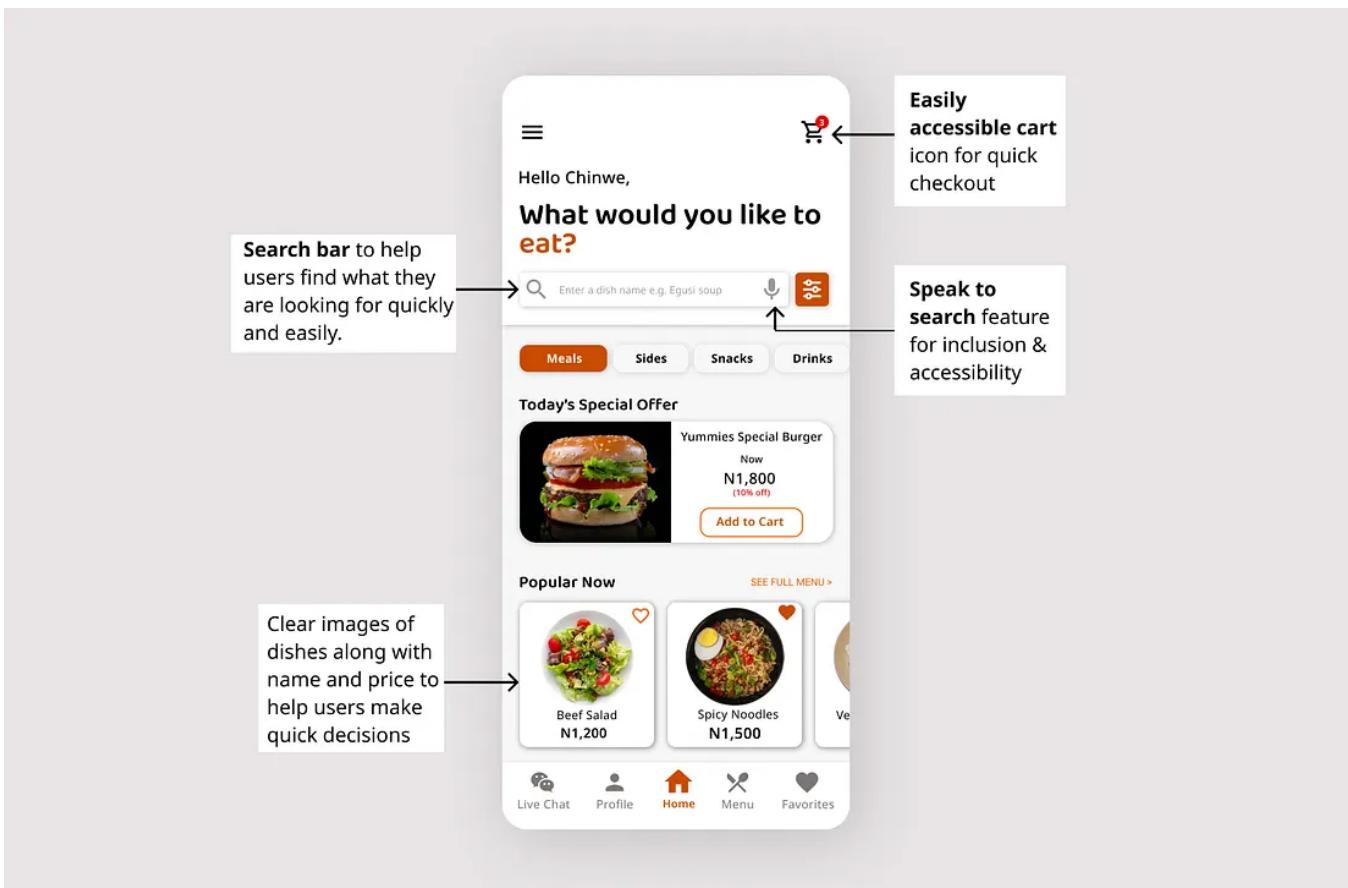
A “Remember me” feature was added to make the process quicker for returning users.

Final Design

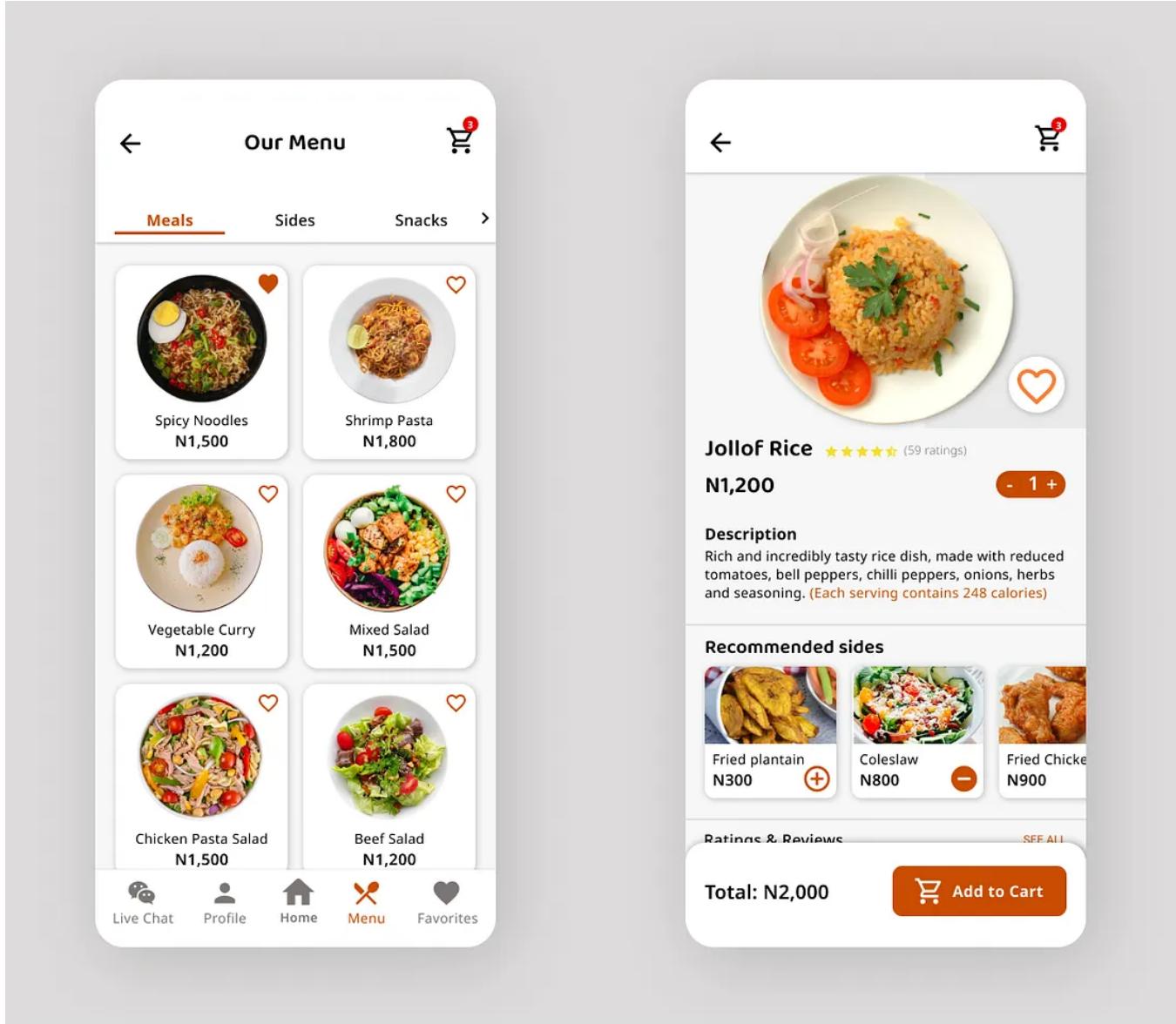
You can interact with the prototype [here](#).



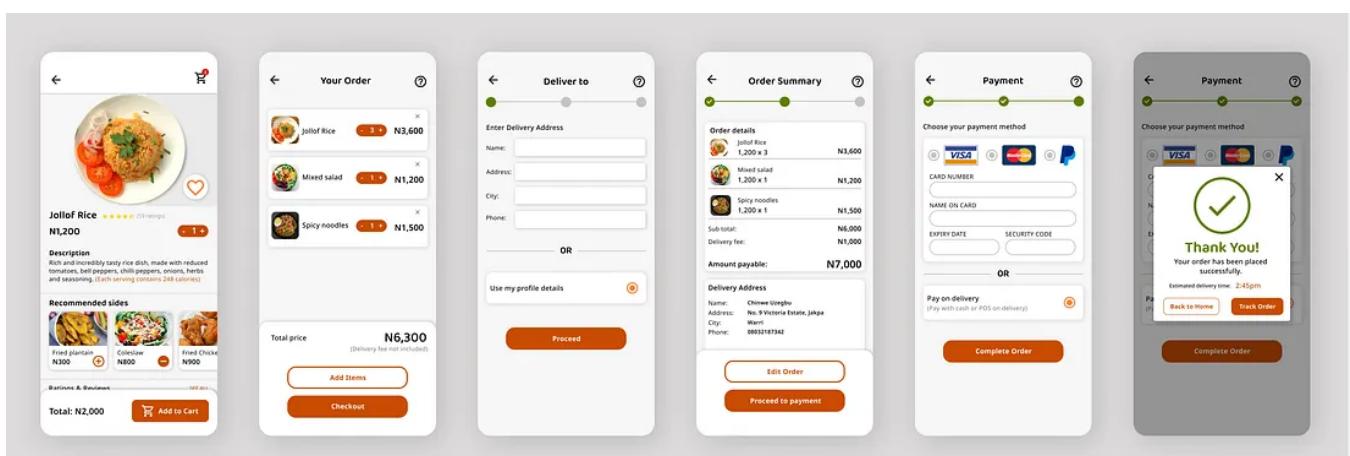
Straightforward, no-gimmick onboarding process to save time



Home screen



Simple menu screen. Details screen consists of food description, price, quantity, recommended sides (anticipating the user's needs), ratings and reviews.



An easy ordering process with added shortcuts for returning users. Pay on delivery option included.

High-fidelity prototype of Yummies app

Style Guide

Typography

Header 1

Baloo 2, Semibold, 36

Header 2

Baloo 2, Semibold, 24

Header 3

Baloo 2, Semibold, 20

Header 4

Noto Sans, Semibold, 16

Header 5

Noto Sans, Medium, 16

Body text

Noto Sans, Regular, 14

Sub Body text

Noto Sans, Light, 12

Color Palette



Background colour

#F7F7F7

Iconography



Buttons

Large Buttons

Create Account

Add Items

Small Buttons

Add to Cart

Go Back

Qty Adjustment

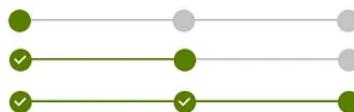
- 3 +

Navigation

Tab bar



Progress bar states (checkout)



Cards

Menu card



Small Menu card



Style Guide for handing off the design to developers

Inclusive and Accessible design

My aim was to create a design that considers the full range of human diversity, with respect to ability, age, language and other forms of human difference. More importantly, I wanted a similar user experience for every user, regardless of their abilities. Here are some decisions I made to reflect this:

- Considering that some users of the app might not be able to read English, I tried not to rely too heavily on text: Images, colours and recognizable icons were strategically used to direct users to the appropriate actions.
- To ensure compatibility with assistive technology such as screen readers, I included image descriptions and used appropriate hierarchy and emphasis throughout the design.
- High contrasting colours were used to make it easy to differentiate between

elements.

- A speak-to-search feature was included for quick and easy search.

Designed for real users

Although I only documented two usability studies, I was constantly testing the design with users and iterating it based on the feedback received. It took about 10 iterations to get to the final design.

I tested the final design with two (2) people with limited technical knowledge and they were able to complete the desired tasks without any assistance.

Takeaways & Next Steps

Takeaways

Testing a product with real users helps give a new perspective on things: Through my usability studies, I was reminded that each individual is unique. So the best way to learn about the usability of a product is by testing it with different people.

Next Steps

The next step would be to conduct another round of usability studies with a wider range of participants, to determine whether the current solution effectively addresses the users' pain points.

Project Reviews

A grid of nine reviews from different users, each with a profile picture and a short comment. The reviews are arranged in three rows of three. The first row contains reviews from Magdalena Maliszewska, Dorothee Volker, and Ross Charpentier. The second row contains reviews from Baoqi Ding, Eberechukwu Nwafor, and Monica Montojo. The third row contains reviews from Laura Bruno Parreira.

Magdalena Maliszewska Perfectly made! You can easily go through the entire user flow, every element of the application is used wisely, the transitions between the screens are smooth and accessible. It's a pleasure to use this app! Good job! :)	Dorothee Volker Such a great work!	Ross Charpentier Great execution. The App looks fantastic
Baoqi Ding Love the color consistency in this app	Eberechukwu Nwafor This is mind blowing. I love how it recommends side dishes that'll go with the main dish. 	Monica Montojo Fantastic job! It looks so good!!
		Laura Bruno Parreira Great job! :)

Peer reviews on this project from around the world.

Tools Used

- Figma
- Miro
- Gliffy
- Google Docs
- Google Spreadsheet
- Google Slides
- Google Meet (for interviews)

THE END

Thank you for reaching the end of this case study 🥰. Please feel free to drop your comments and suggestions.

About the Designer

Hi there! 

I'm Chinwe (pronounced chin-weh), a User Experience Designer, Writer and avid problem solver.

Five months ago, I made a decision to pursue a career in User Experience Design. This decision was fuelled by the desire to create easy-to-use designs that solve complex problems. I believe that a good design should be useful and accessible to every user regardless of their cognitive ability.

I did this project in partial fulfilment of the requirements for the Google UX Design Certificate. I am pleased to say that I have successfully completed 5 out of the 7 courses in the series with a cumulative average score of 99.7%.

My thoughts on the program?

I think the program is great for beginners looking to start a career in UX Design. The tutorials are well detailed and easy to follow. I 100% recommend it!

You can connect with me on [LinkedIn](#), [Behance](#) or simply send me an e-mail (cuzegbu@gmail.com).

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Written by Chinwe Uzegbu

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UX Writer/Designer. I geek out on UX concepts, so you don't have to. Reach me: cuzegbu@gmail.com

Responses (9)

[Write a response](#)

What are your thoughts?



Sean Blake
Nov 4, 2021

...

Chinwe, this by far is the best article I have read on this platform. I have learnt so much from you with this post in just 15mins. Thanks very much for sharing.

 4  1 reply [Reply](#)

 Tunde Olowookere
Oct 13, 2022 

Read this through Google and decided to come here to appreciate this intelligence. Thank you.

 14  1 reply [Reply](#)

 Sandeep Jangid
Apr 23 

This case study is a fantastic example of user-centered design in action!

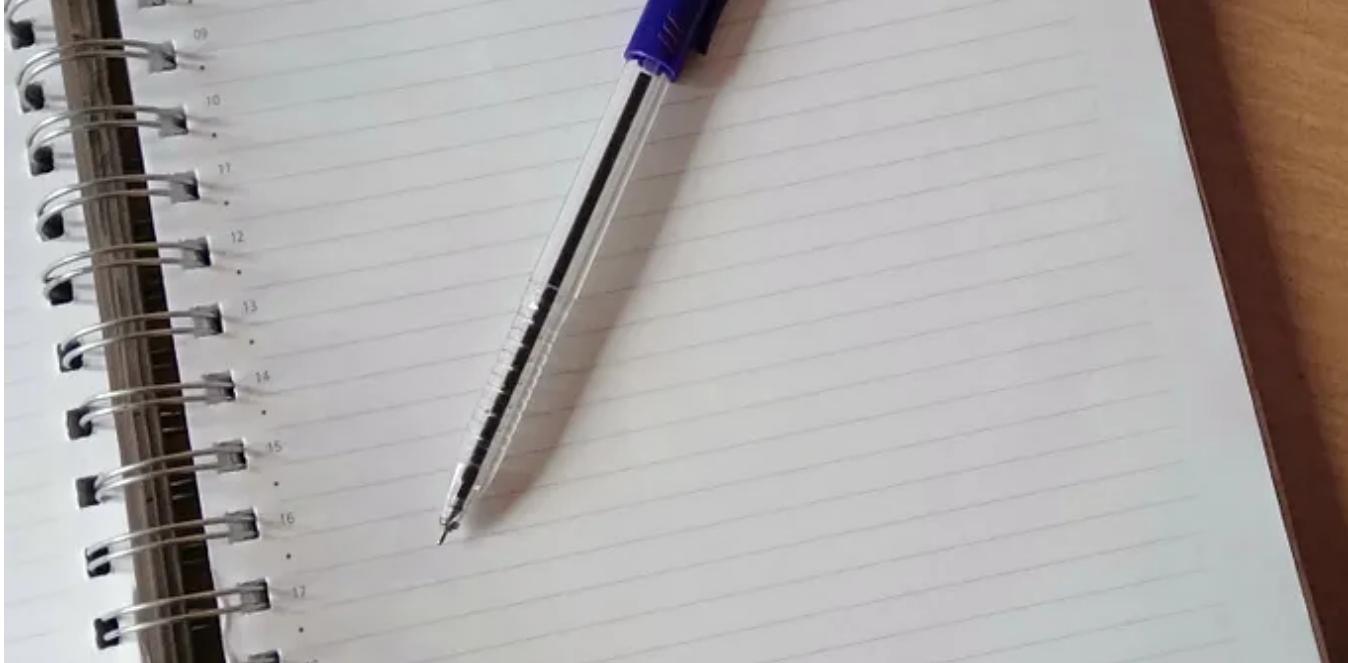
It shows how thoughtful research, iterative testing, and accessibility considerations can lead to a product that truly serves its users.

Well done on a thorough and inspiring... [more](#)

 [Reply](#)

[See all responses](#)

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 Chinwe Uzegbu

An Open Letter to Myself on My Birthday

Today is my birthday!

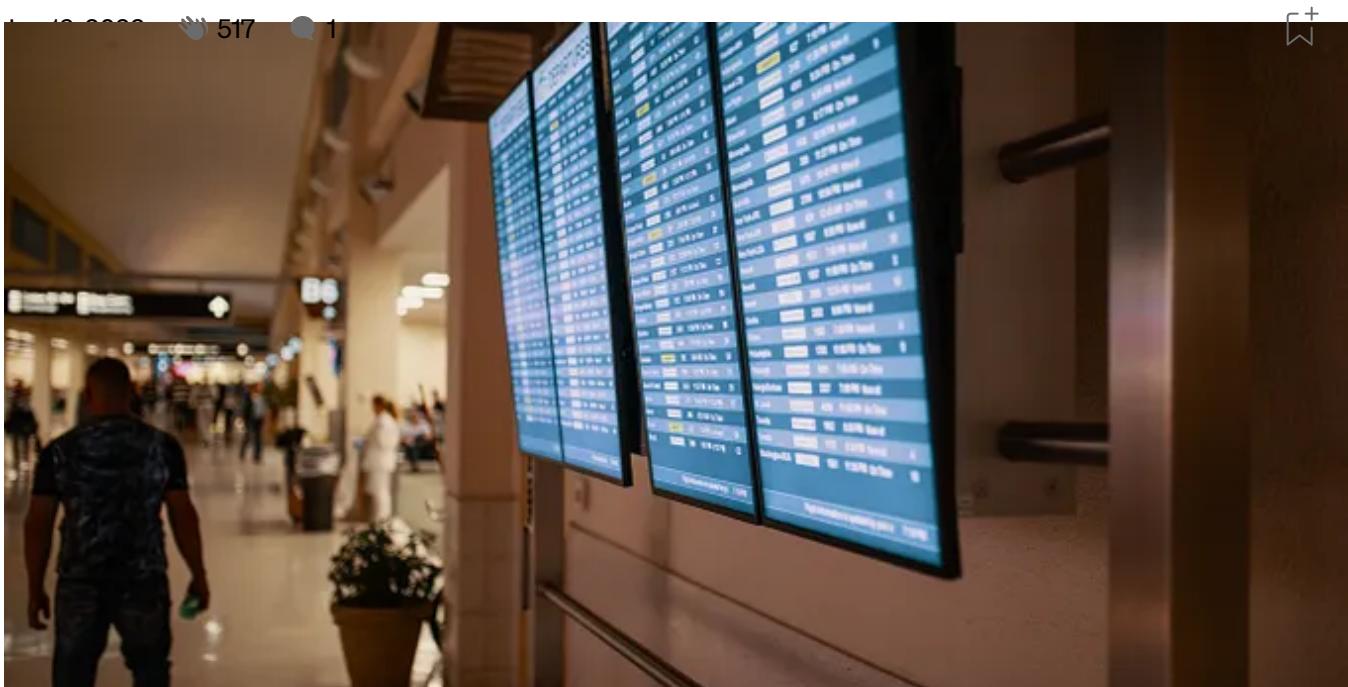
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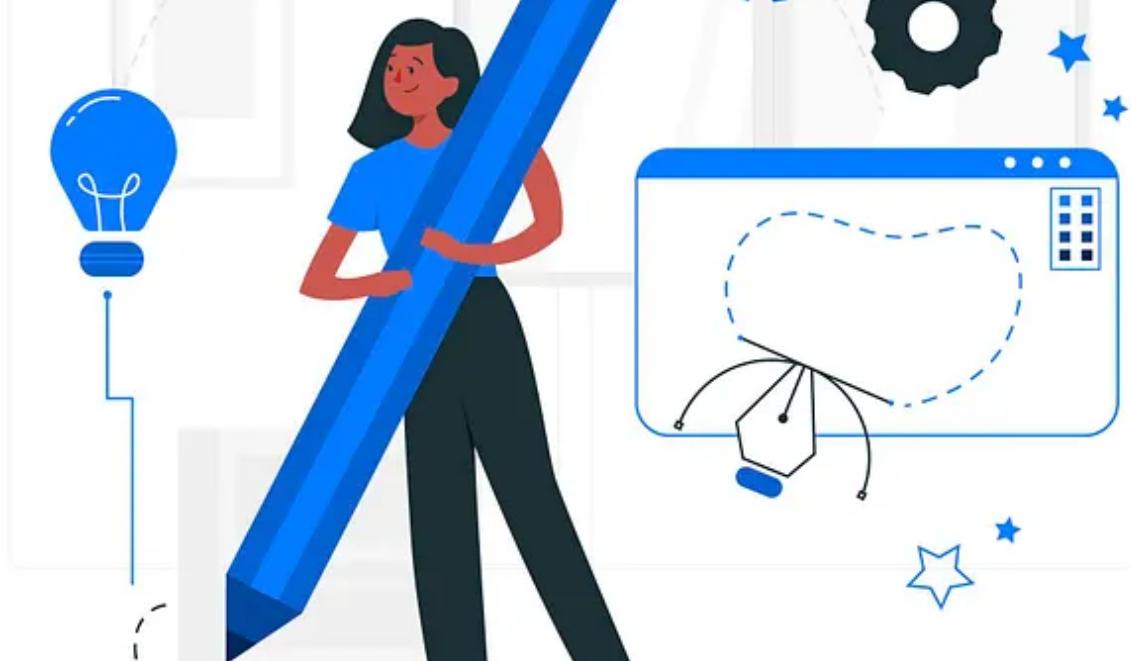
 Chinwe Uzegbu

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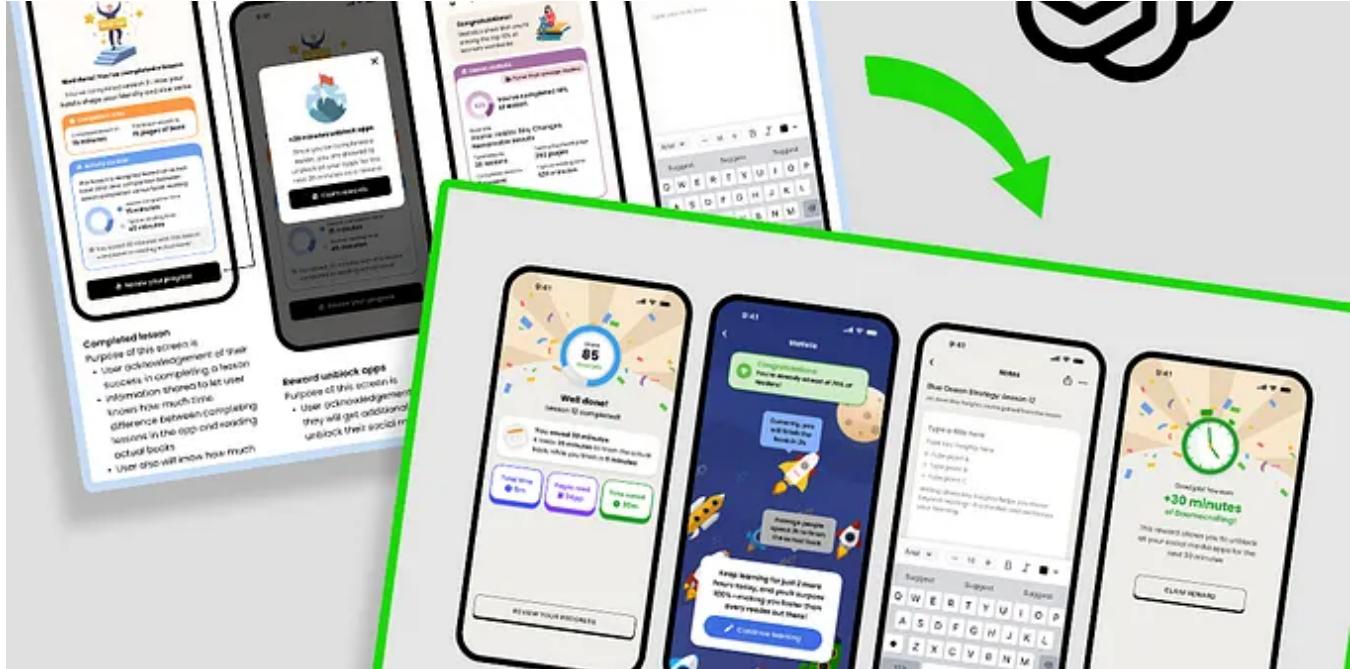
Apr 7, 2023

401



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Angelica Singh

Design Lead @Flutter Kanpur | UV UX designer | Graphic designer | Member @Point Blank | @Genesis Bengaluru, Karnataka

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Introduction

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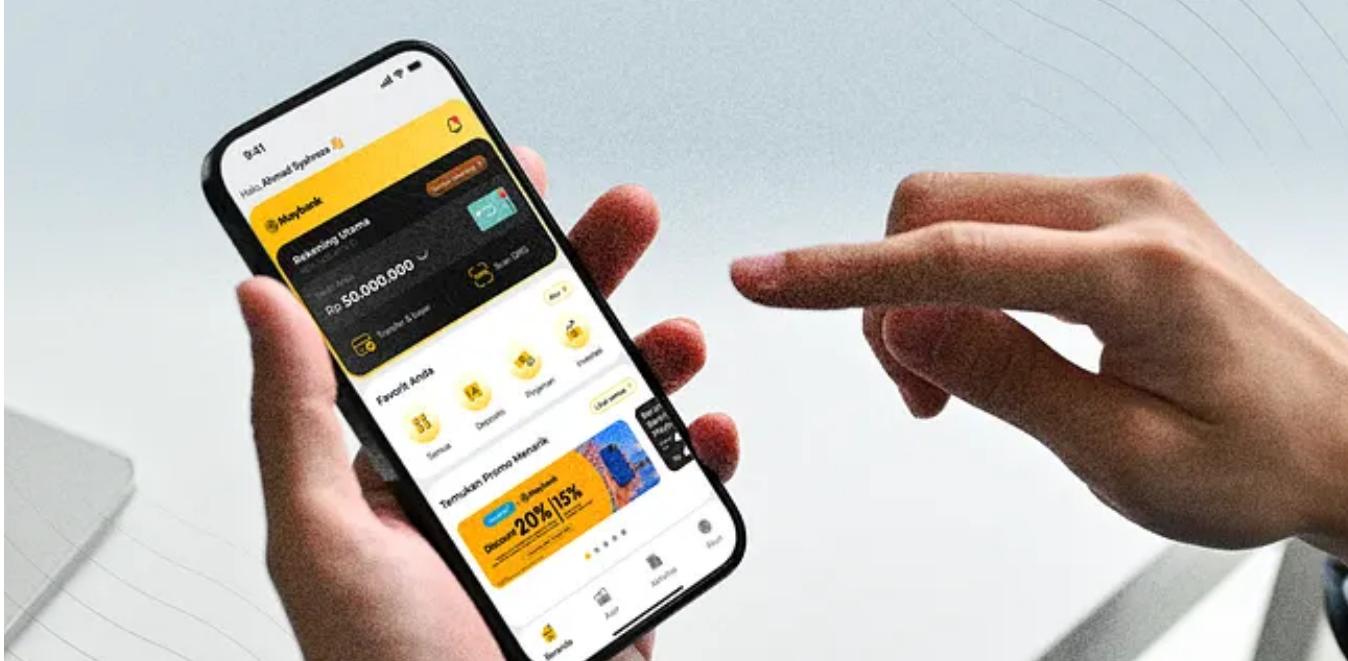
 Bastiaan Korte

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This case study outlines the 3rd project I did at Ironhack, for my bootcamp UX/UI design. The goal of this project was to assess and...

Mar 23



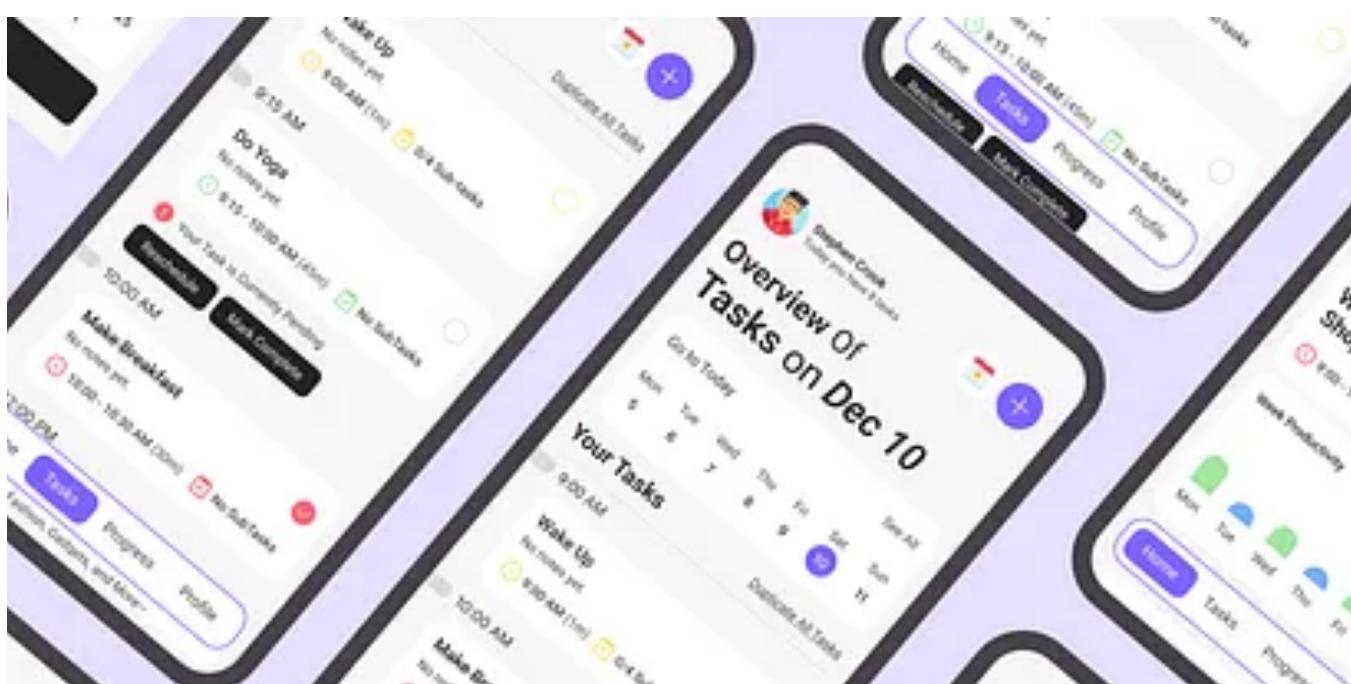


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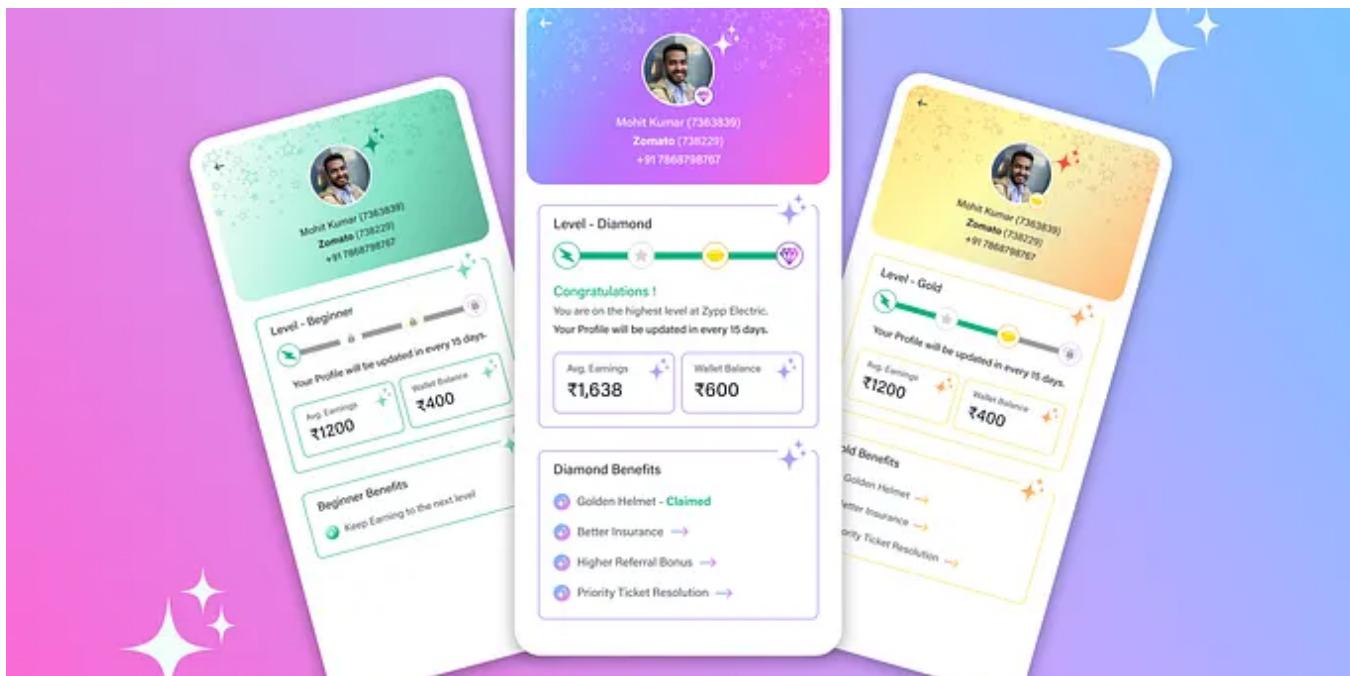


 Nishant

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May 28

 Poorvi

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1 Day. 1 Designer

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