Name: Mudit Sharma
Roll no.: 101

Food Ordering Application

Project Title: Food Ordering application.

Problem Statement:

Existing food ordering applications face challenges such as limited restaurant selection, inaccurate menus and pricing, poor user interface and navigation, slow delivery and order tracking, inadequate customer support, and limited payment options. These issues result in a subpar user experience and lower user satisfaction.

Description Of Project:

The topic at hand is the problem statement related to a food ordering application. Food ordering applications have gained significant popularity in recent years as a convenient way for users to order food from various restaurants and have it delivered to their doorstep. However, these applications are not without their flaws and face several challenges that hinder the overall user experience.

One of the common issues is the limited restaurant selection. Users often find themselves restricted to a limited number of restaurants available on the platform, limiting their options and preventing them from exploring a diverse range of culinary choices. This limitation can lead to dissatisfaction and frustration among users who desire more variety and options.

Another challenge is the accuracy of menus and pricing information. Users rely on the application to provide them with up-to-date menus and prices. However, there are instances where outdated or incorrect information is displayed, leading to confusion and disappointment when users receive their orders. This inaccuracy can result in wasted time, money, and an overall negative experience.

The user interface and navigation of food ordering applications can also pose problems. Some applications have complex or unintuitive user interfaces that make it difficult for users to find what they need quickly. Cluttered screens, confusing layouts, and unclear navigation paths can deter potential users and discourage them from using the app altogether.

Timely delivery and order tracking are crucial aspects of a food ordering application. However, some applications suffer from delays in delivery and a lack of proper order tracking systems. Users may experience uncertainty about the status of their orders, leading to frustration and decreased trust in the platform.Inadequate customer support is

another challenge faced by food ordering applications. Users often encounter difficulties in reaching customer support for queries, complaints, or order-related issues. The lack of prompt and effective customer support can leave users feeling frustrated and dissatisfied.

Lastly, limited payment options can be a constraint for users. Some applications may only offer a few payment methods, limiting the convenience and flexibility for users who prefer different payment options.Addressing these challenges and providing solutions to improve the user experience and overall efficiency of food ordering applications is crucial to ensure user satisfaction and maintain a competitive edge in the market.

Social Impact:

Food ordering applications have a significant social impact on various stakeholders involved, including consumers, restaurants, delivery personnel, and the local community. Here are some of the social impacts of food ordering applications:Convenience and Accessibility: Food ordering apps have revolutionized the way people access and enjoy food. They provide convenient and easy access to a wide range of restaurants and cuisines, allowing users to order food from the comfort of their homes or workplaces. This accessibility is particularly beneficial for individuals with mobility constraints, busy schedules, or limited access to transportation.

Supporting Local Restaurants: Food ordering apps can help support local restaurants by providing them with a digital platform to reach a larger customer base. This can be especially crucial for small-scale and independent restaurants that may not have the resources or visibility to compete with larger chains. By patronizing local restaurants through these apps, users contribute to the growth and sustainability of the local culinary scene.

Employment Opportunities: Food ordering applications create employment opportunities for delivery personnel. These individuals, often referred to as gig workers, rely on these platforms to earn a livelihood. By connecting customers with delivery personnel, these apps contribute to job creation and income generation, especially in urban areas.

Reduced Food Waste: Food waste is a significant global issue. Food ordering apps can contribute to reducing food waste by allowing users to order specific portions or customize their meals according to their preferences. This customization feature reduces the likelihood of food being wasted, leading to more sustainable consumption practices.

Environmental Impact: Food delivery can have environmental implications due to increased transportation and packaging. However, food ordering apps have the potential

to mitigate some of these impacts. By optimizing delivery routes and encouraging eco-friendly packaging practices, these apps can reduce carbon emissions and minimize the ecological footprint associated with food delivery.

Digital Inclusion: Food ordering apps have the potential to bridge the digital divide by providing access to digital services and technologies. They enable individuals who may not have access to traditional banking systems to make digital payments, thereby promoting financial inclusion.

While food ordering applications offer numerous social benefits, it is important to address any potential negative impacts such as labor rights, fair wages for delivery personnel, and ethical considerations regarding the treatment of restaurant partners. Striking a balance between convenience, sustainability, and fairness is essential for maximizing the positive social impact of these platforms

Research:

Research on the social impact of food ordering applications has gained attention in recent years. Here are a few notable studies and research papers related to this topic:

"The Social Impact of Food Delivery Platforms: Evidence from Grubhub" by Chen et al. (2018): This study explores the social impact of food delivery platforms by analyzing the effects of Grubhub, a popular food delivery app, on local restaurants and employment. The research examines the impact on sales, customer reviews, and employment patterns, providing insights into the economic and social consequences of these platforms.

"Sustainable Food Delivery Business Models: An Exploratory Study of Foodora and Deliveroo" by Lazzeretti and Capone (2020): This research investigates the social and environmental implications of food delivery platforms, with a focus on sustainable business models. The study examines the challenges and opportunities for these platforms in promoting sustainable practices, reducing waste, and addressing social issues related to labor conditions and fair wages.

"Food Delivery Platforms: Their Social and Environmental Sustainability" by

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Baumeister and Fleischmann (2019): This study examines the social and environmental sustainability of food delivery platforms, analyzing the impact on food waste, carbon emissions, and social inequalities. The research highlights the potential for these platforms to contribute to sustainable consumption patterns and explores strategies for mitigating negative impacts.

"Exploring the Effects of Food Delivery Apps on the Social and Economic Development of Smart Cities" by Ordonez and Ma (2020): This study investigates the effects of food delivery apps on smart city development, focusing on the social and economic aspects. The research explores the role of these platforms in promoting local entrepreneurship, enhancing urban mobility, and shaping the social fabric of cities.

"The Sharing Economy and New Business Models in Food Delivery: A Cross-Country Comparative Analysis" by Fernández-Molina et al. (2019): This research examines the social and economic impacts of food delivery apps in different countries, comparing their business models and regulatory frameworks. The study analyzes the effects on employment, consumer behavior, and local economies, shedding light on the social implications of these platforms.

These studies highlight the multifaceted nature of the social impact of food ordering applications, including economic implications, labor conditions, sustainability considerations, and their role in shaping urban environments. Further research in this field is necessary to deepen our understanding of these impacts and develop strategies for harnessing the positive potential of food ordering apps while addressing the associated challenges.

Analysis:

User Analysis-

user analysis for a food ordering application involves studying user demographics, behavior, preferences, and ordering patterns. This analysis helps understand the user base, personalize the experience, and optimize the application to meet user needs.

User Persona:

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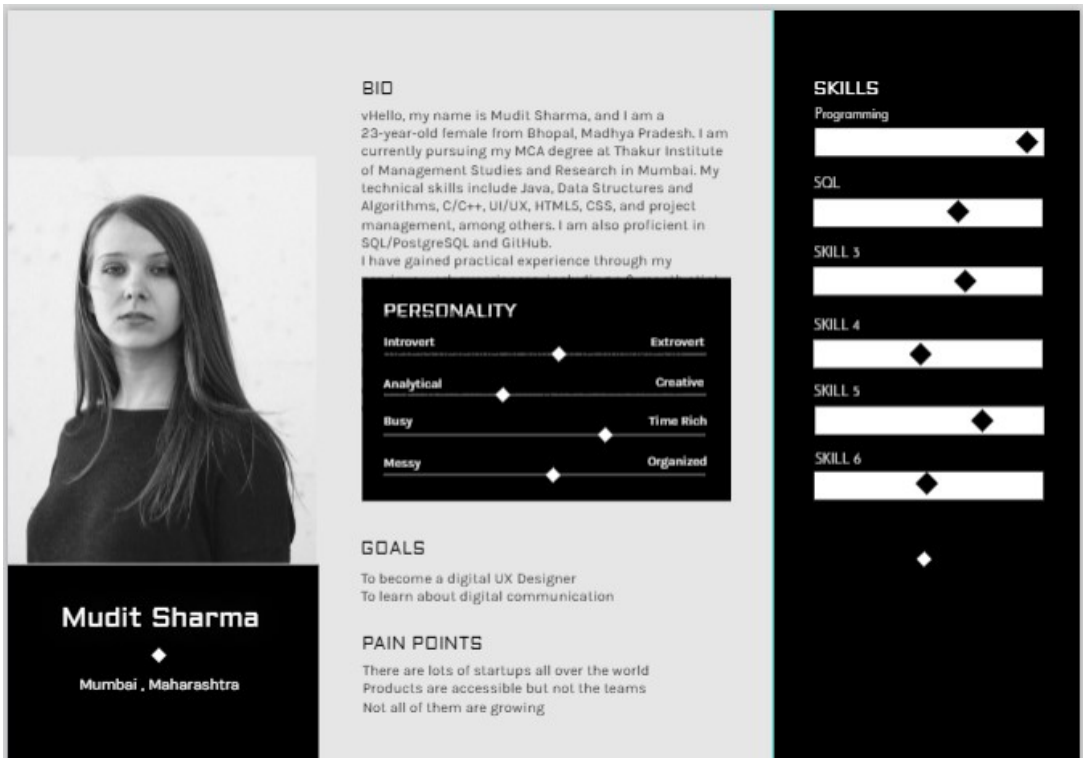
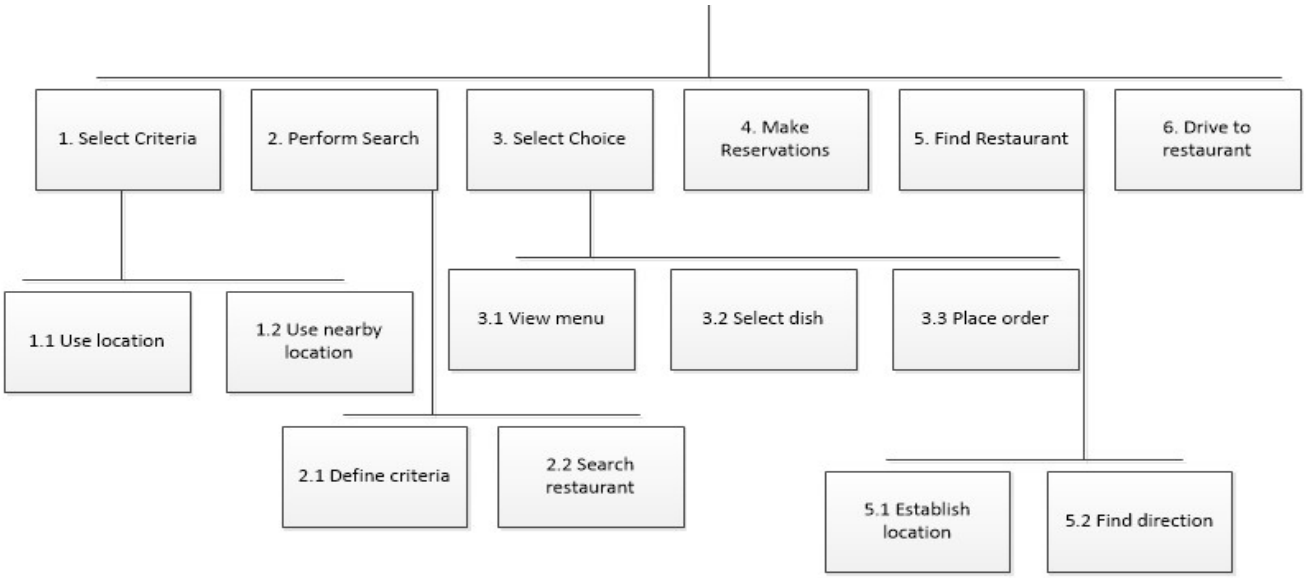


Task analysis



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Object model

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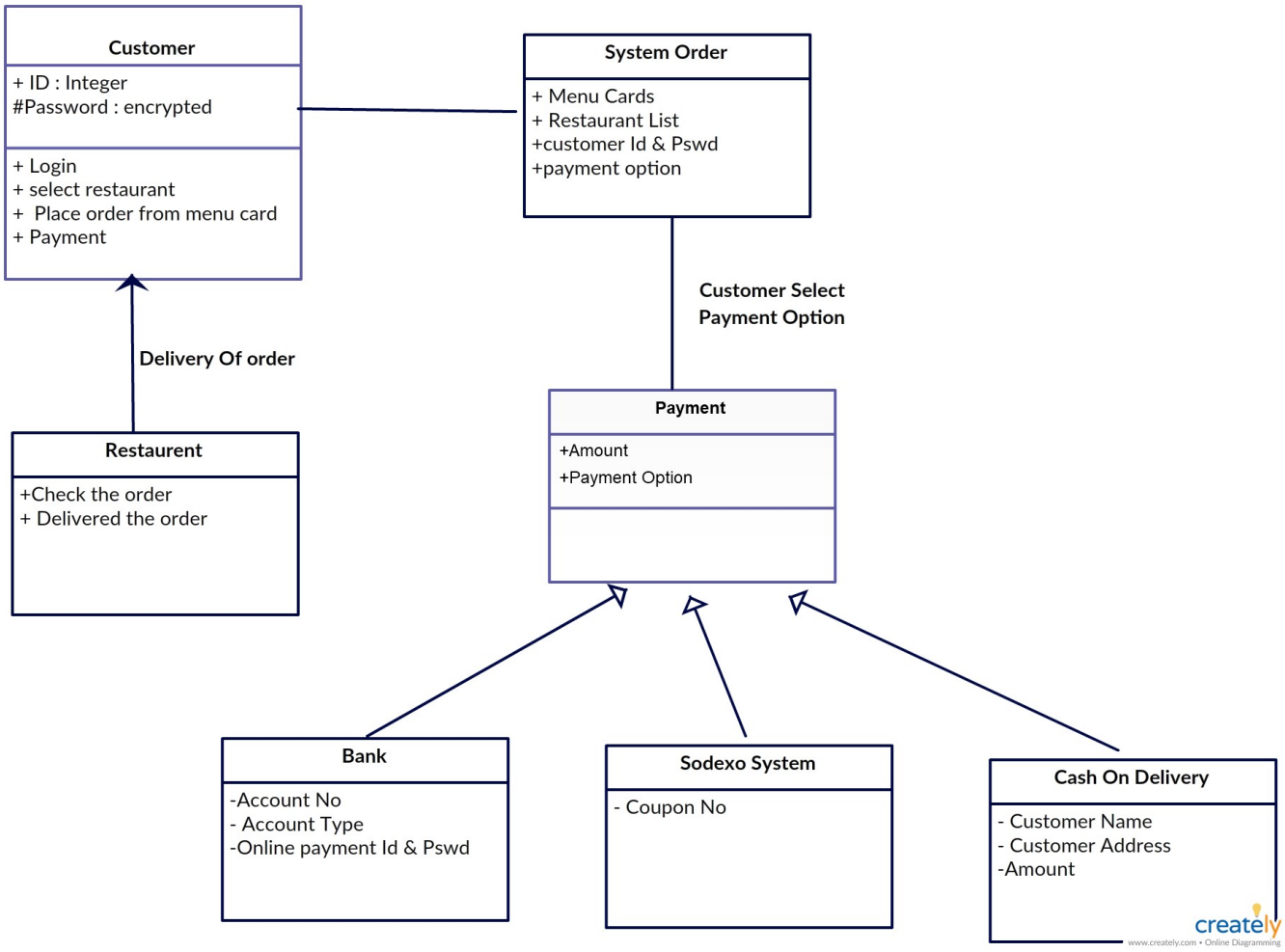
UML Diagrams



State Diagram:

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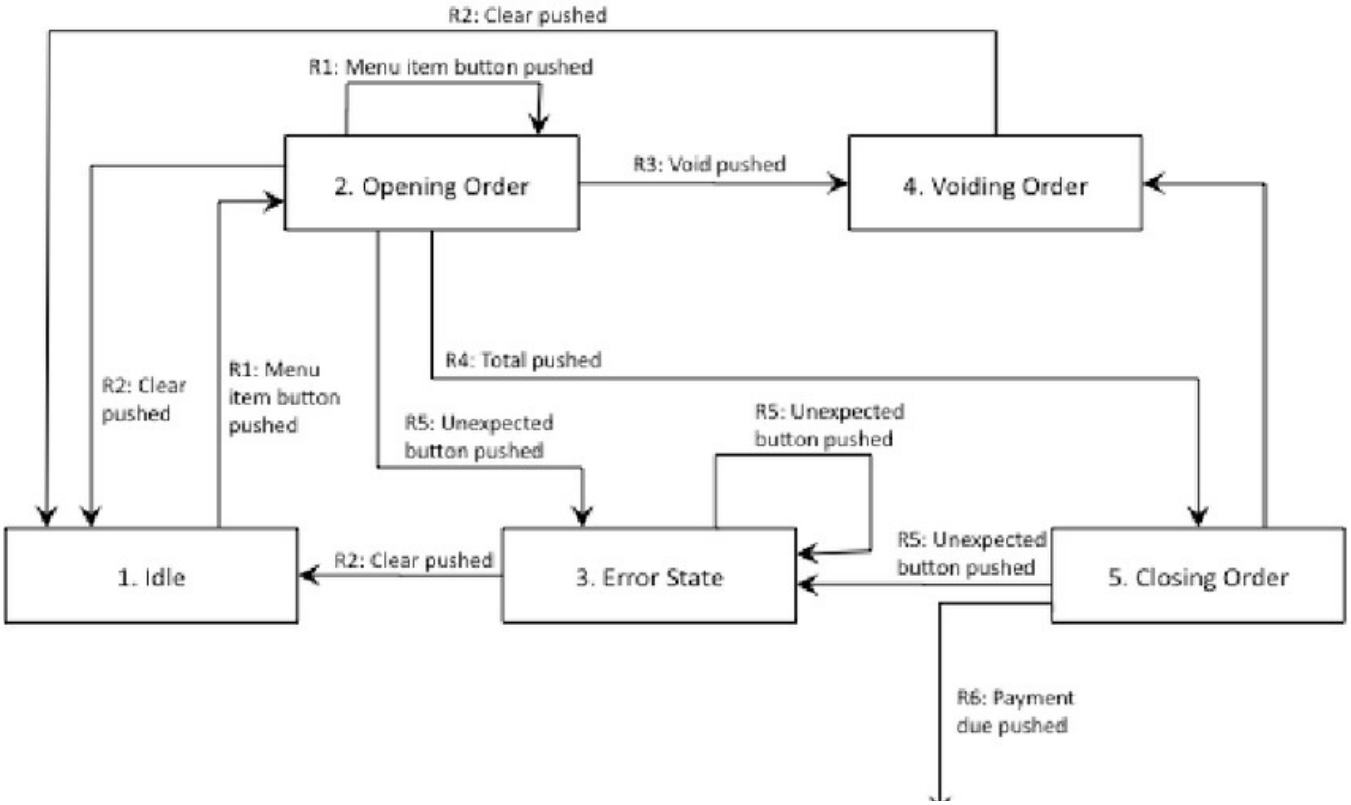

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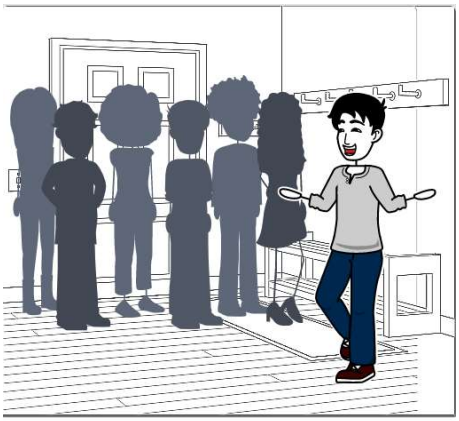
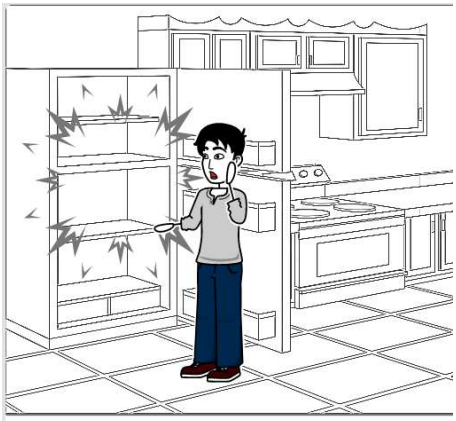
Design:

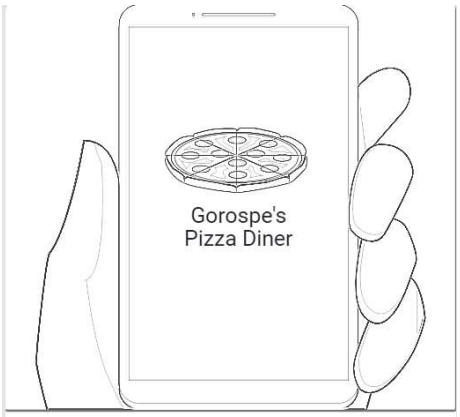
Storyboard



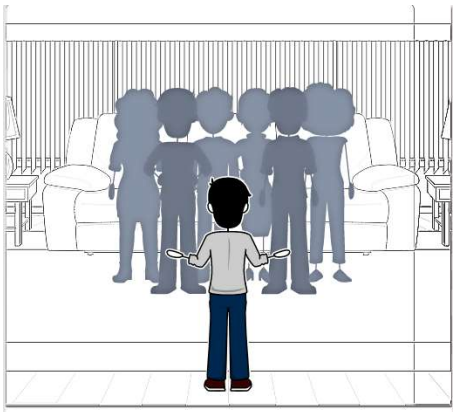
Resty invited his friends and colleagues for a small gathering at his home.



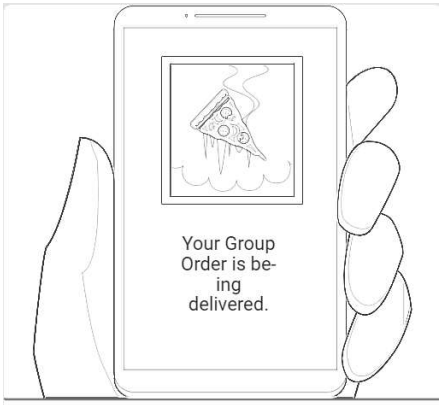
However, as dinner approaches, Resty realizes that he has no food prepared for his guests.



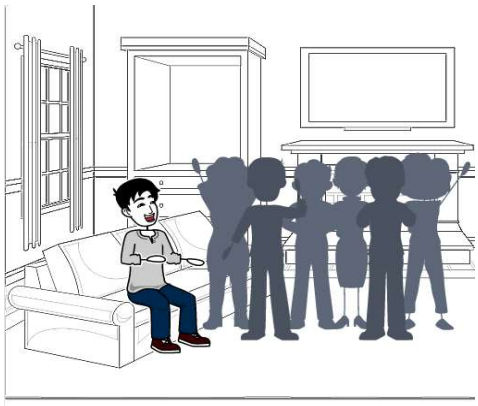
Fortunately, Resty remembers that a nearby pizza restaurant offers food delivery services in his area. He also discovered that it has a mobile food delivery app with a group order feature.



Resty explained the situation to his guests and instructed them to download the app to ease the food ordering process.



Once the friends are invited and the group order is processed, Resty just waited for the food to be delivered to his address.



Resty's group food was efficiently delivered to his home. All of his guests are satisfied with the food delivery service.

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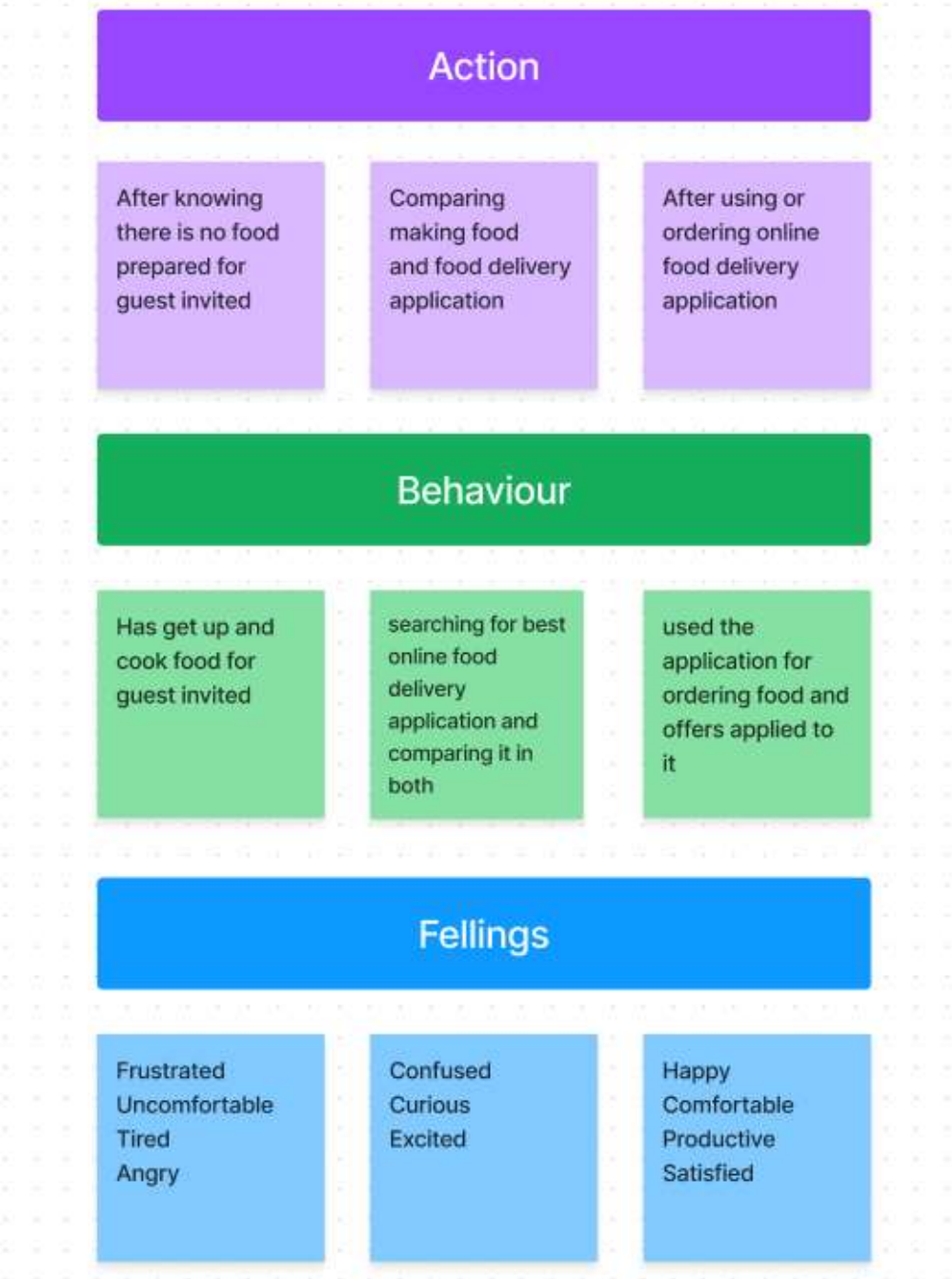
Mental model:



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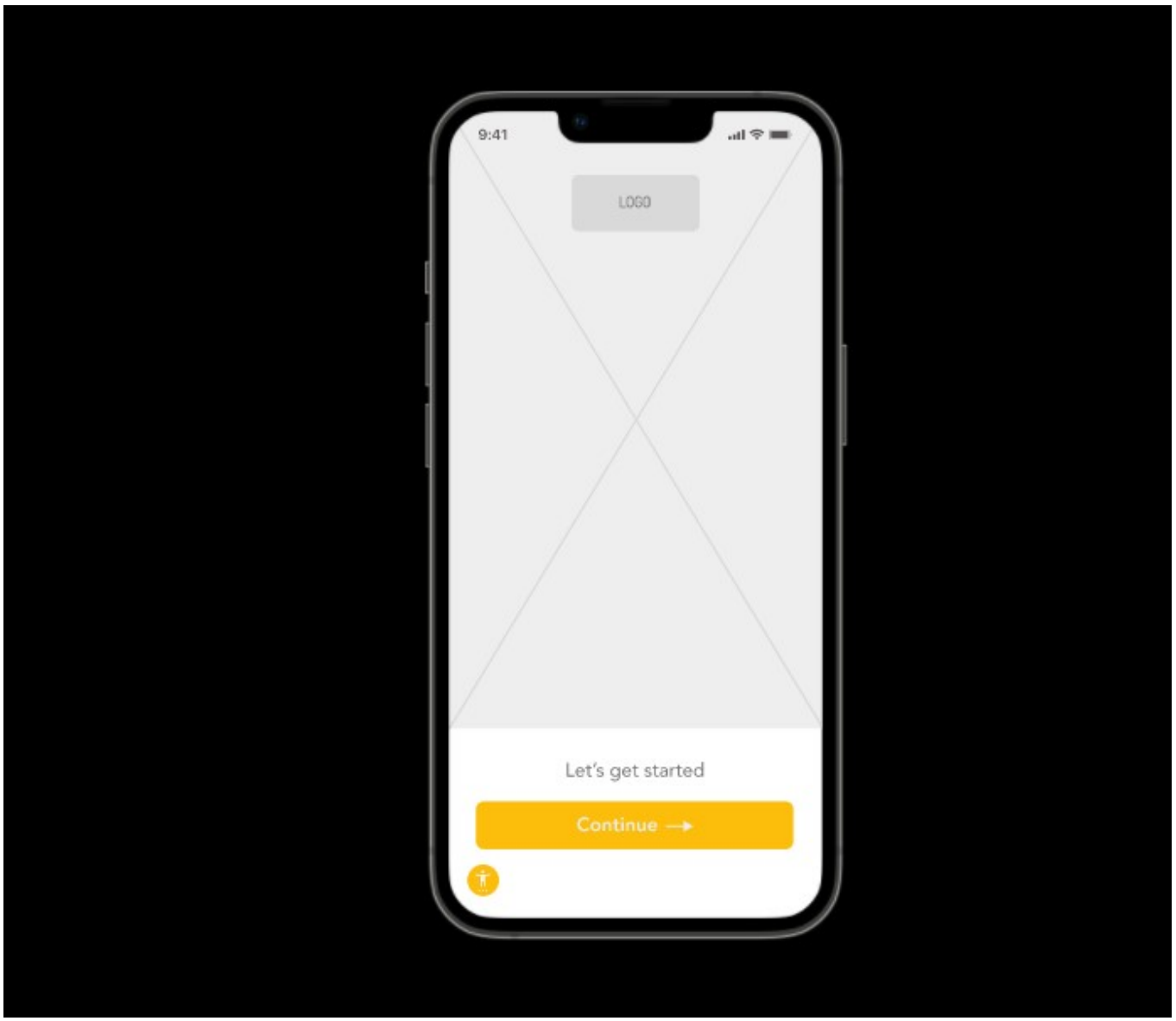
Wireframe:



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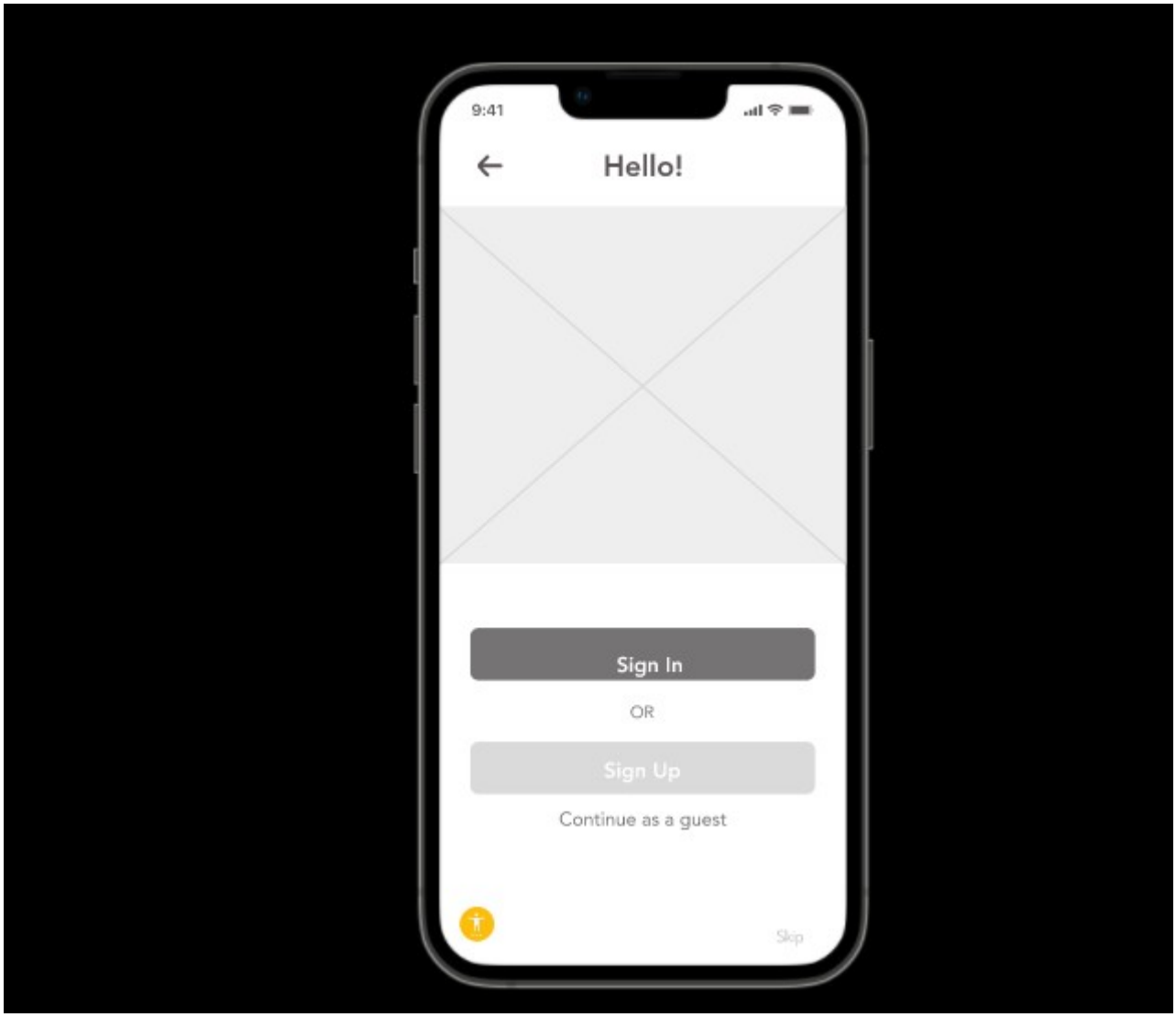

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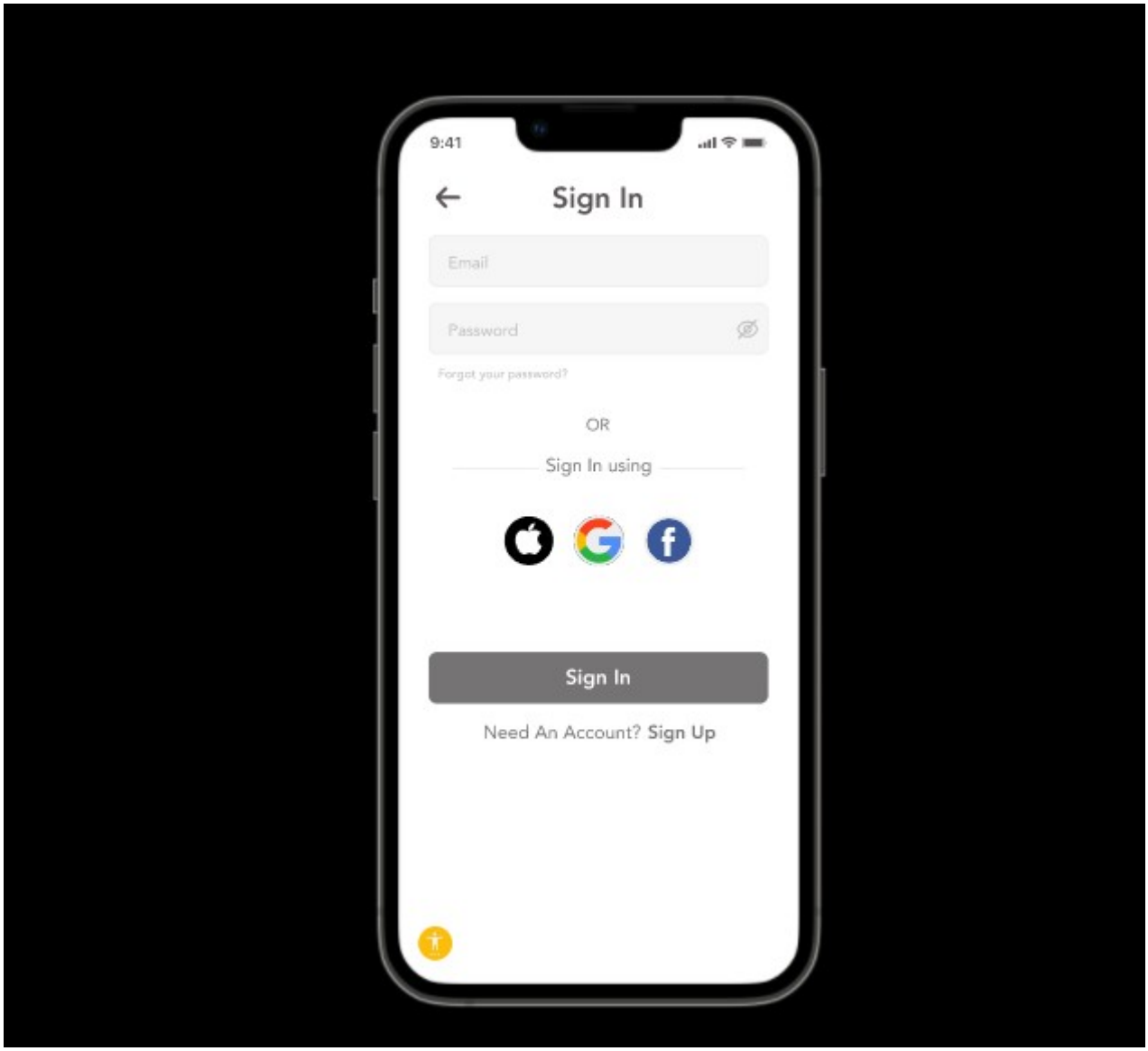

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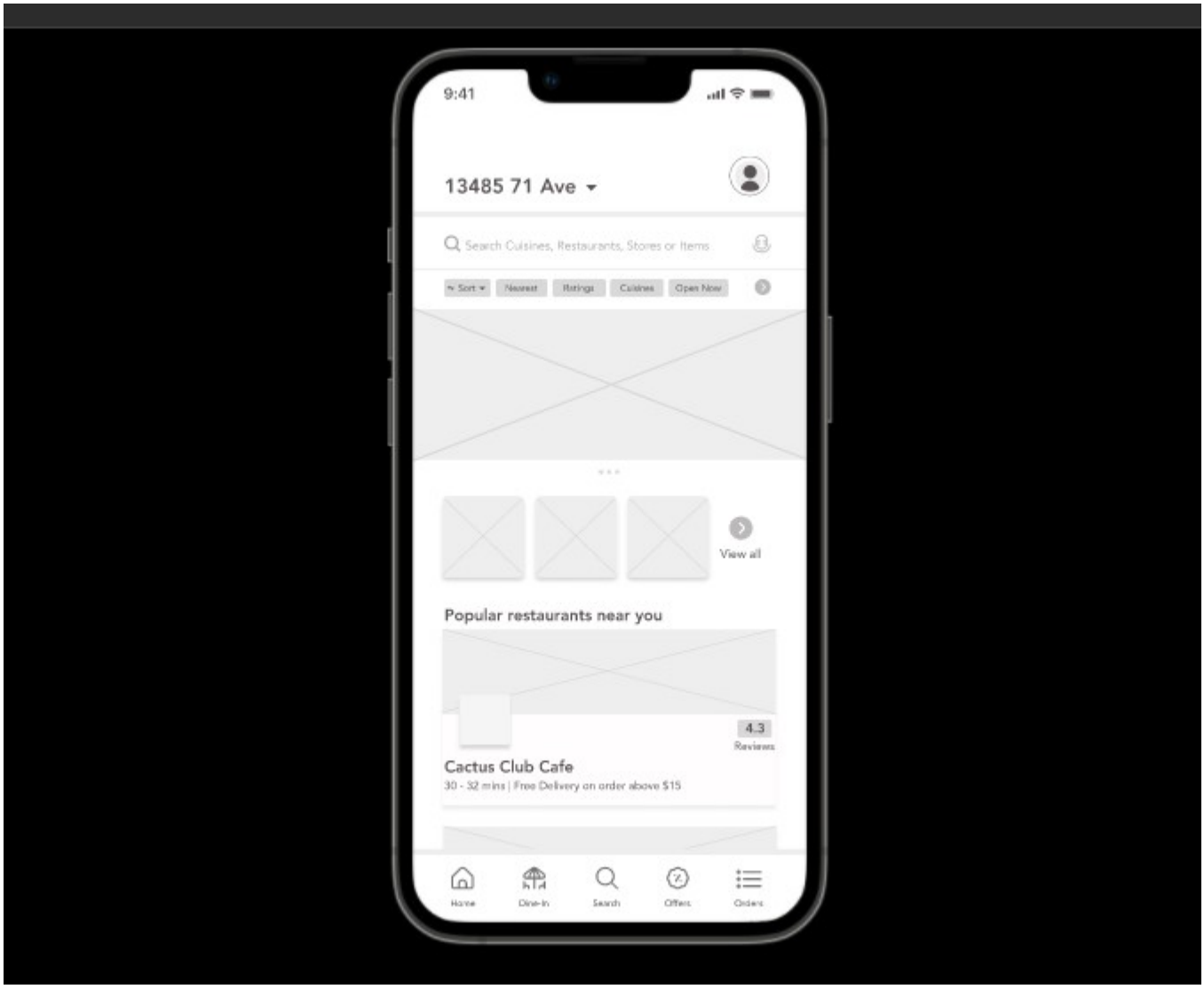

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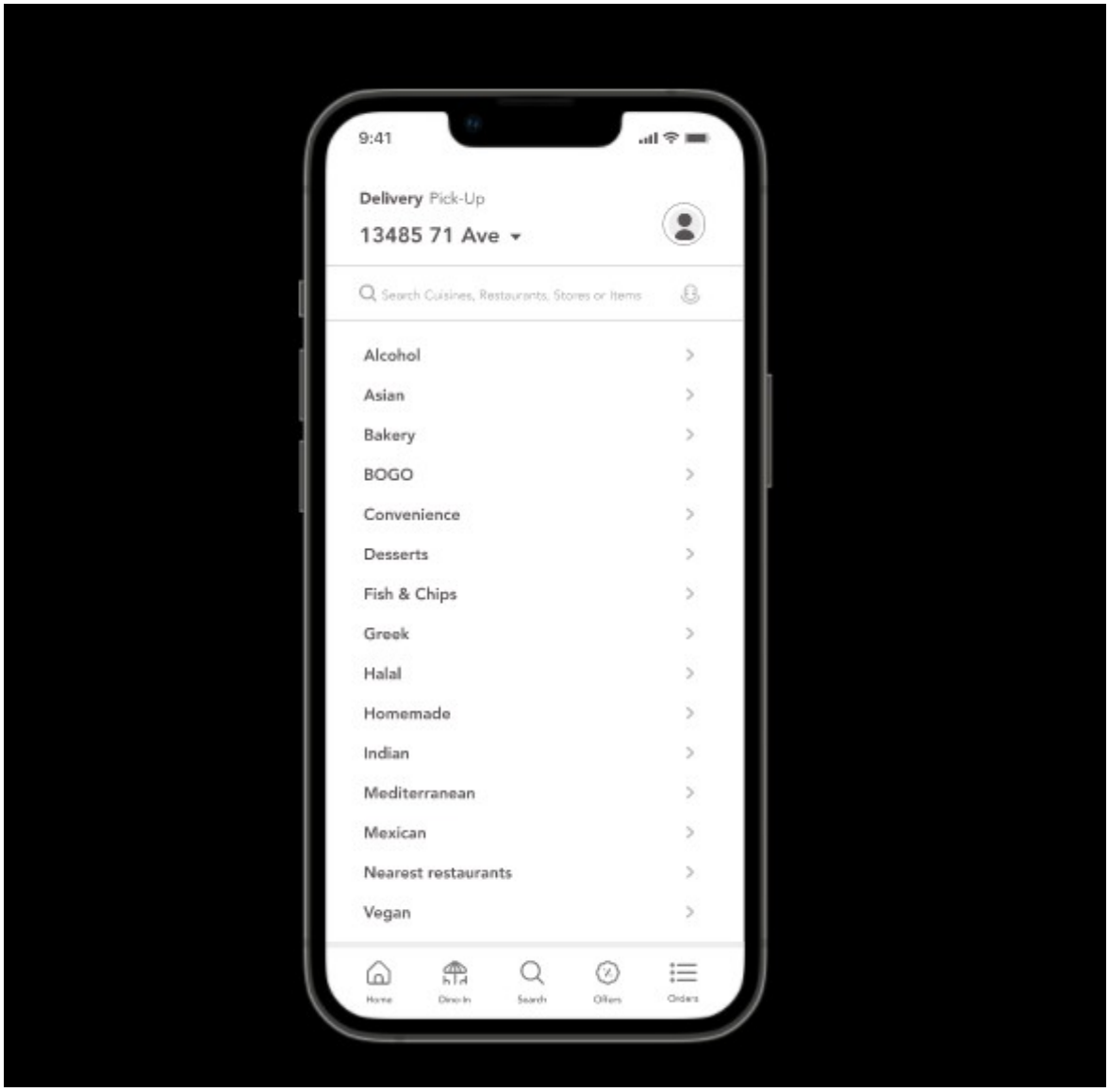

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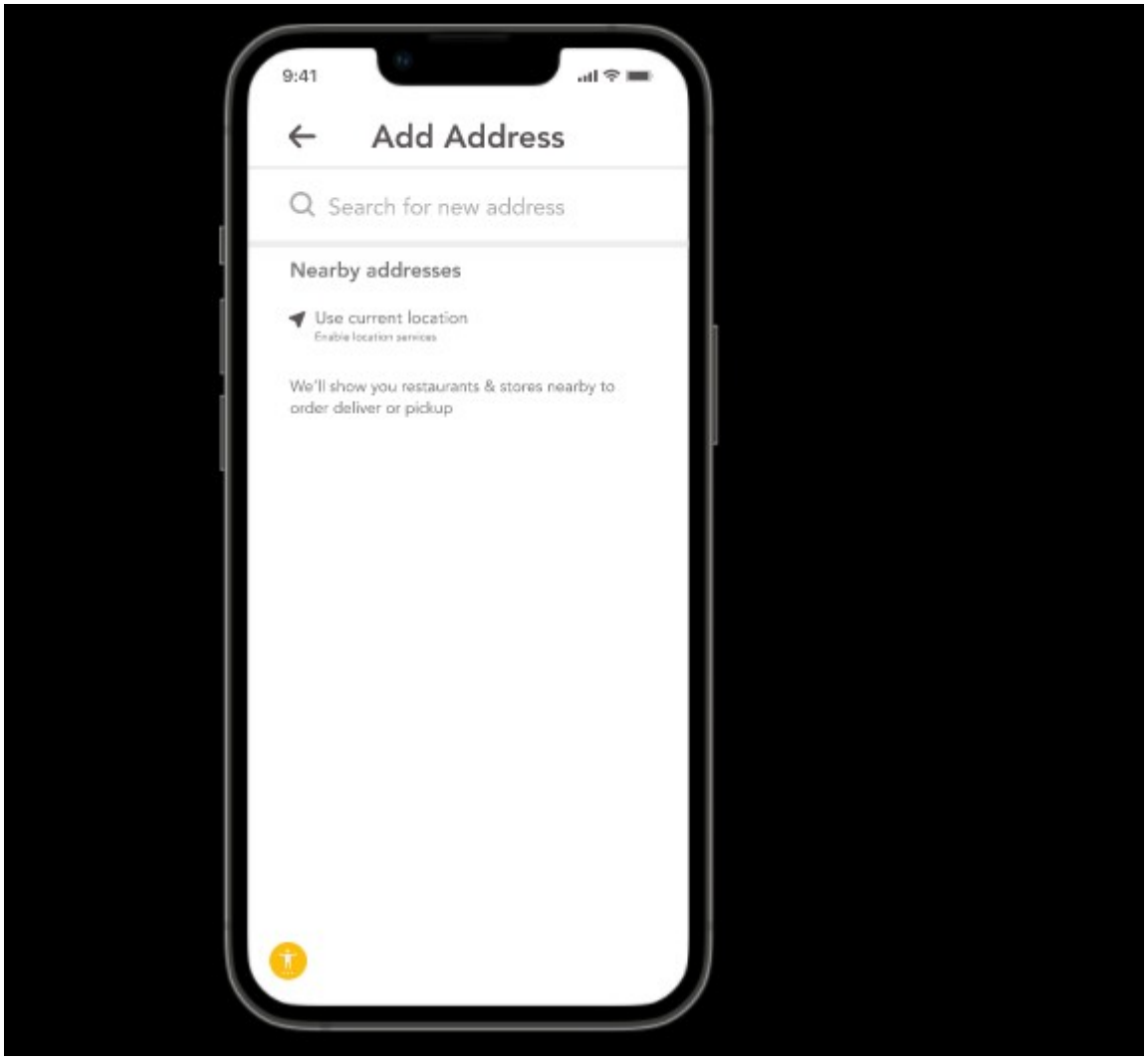

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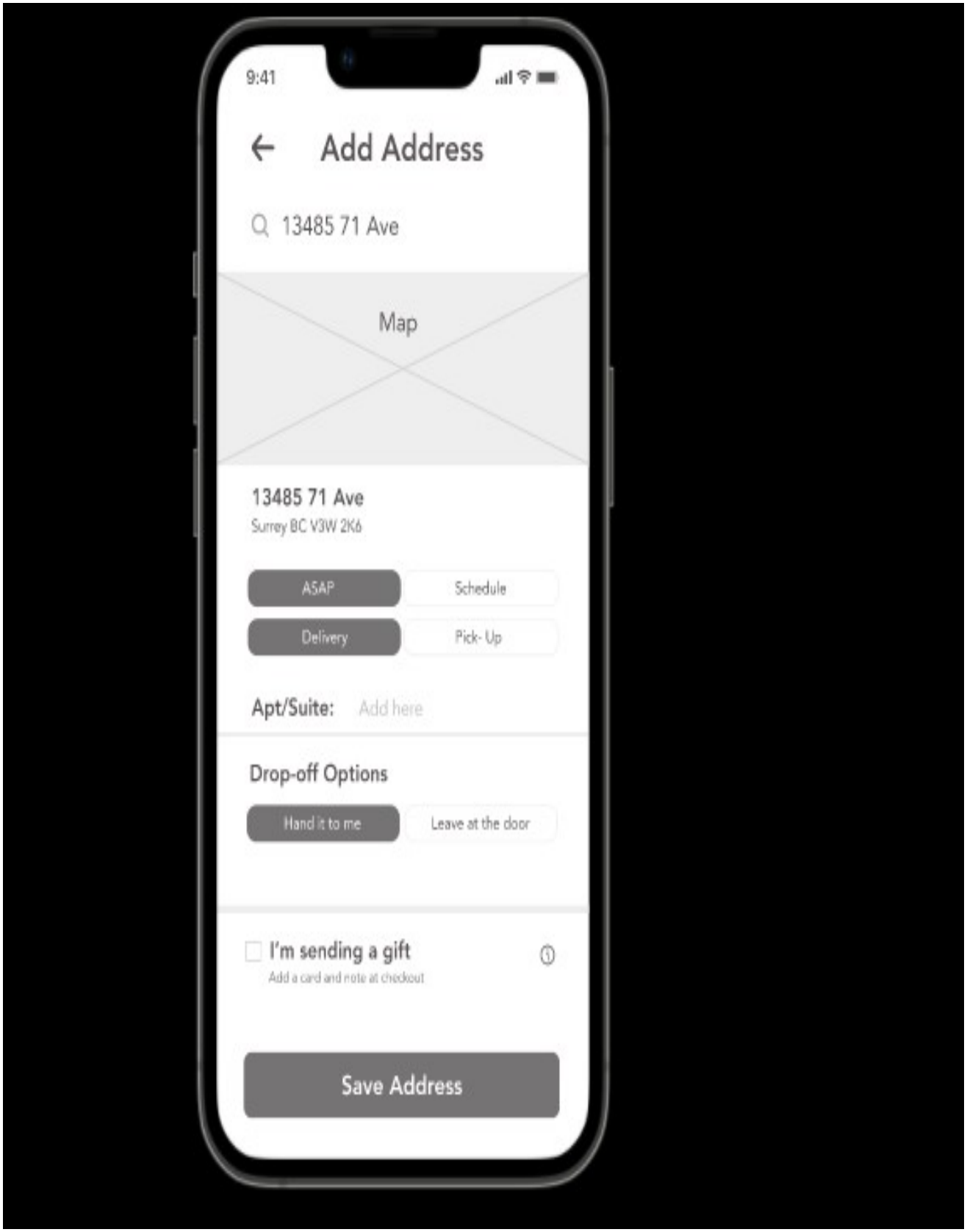

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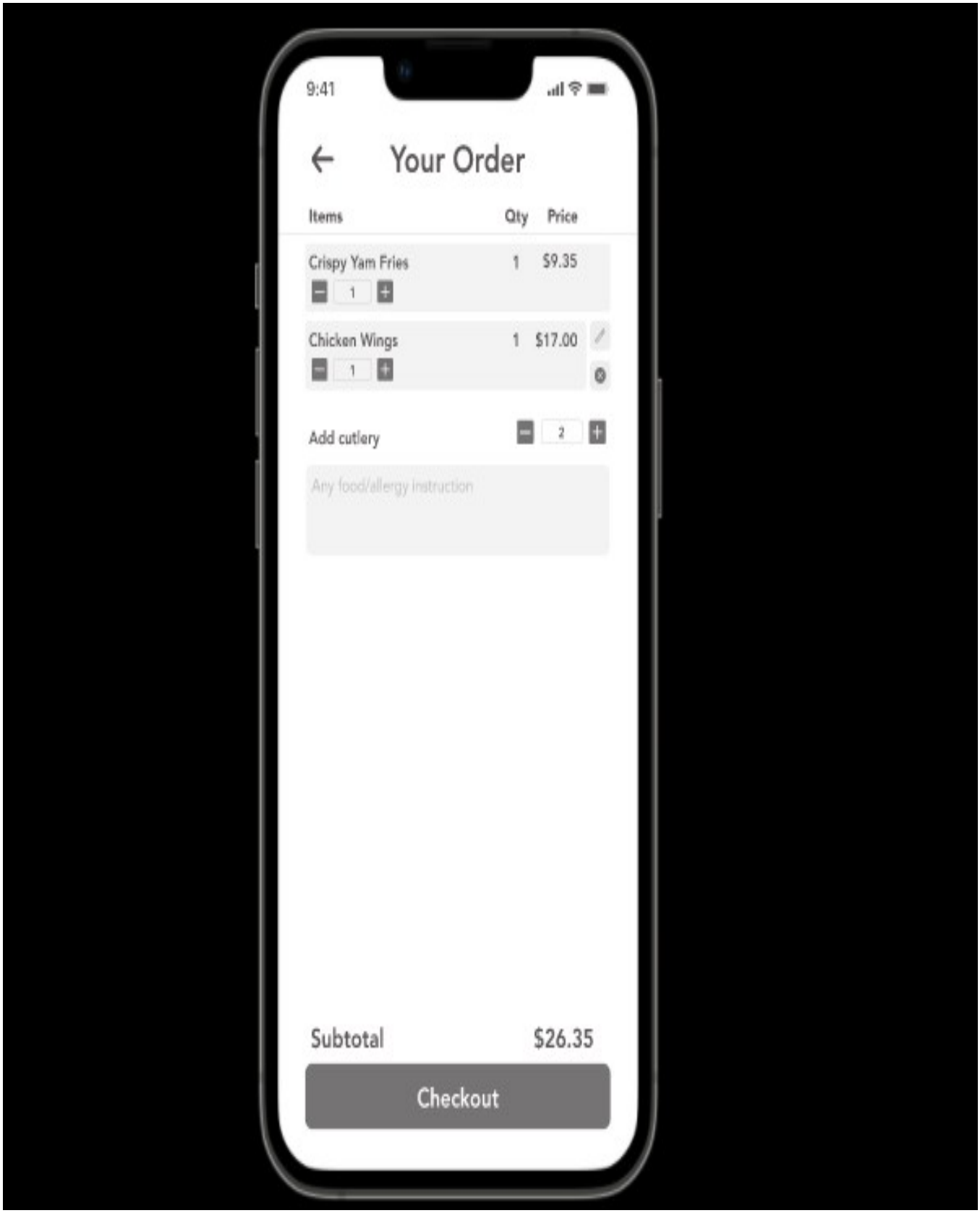

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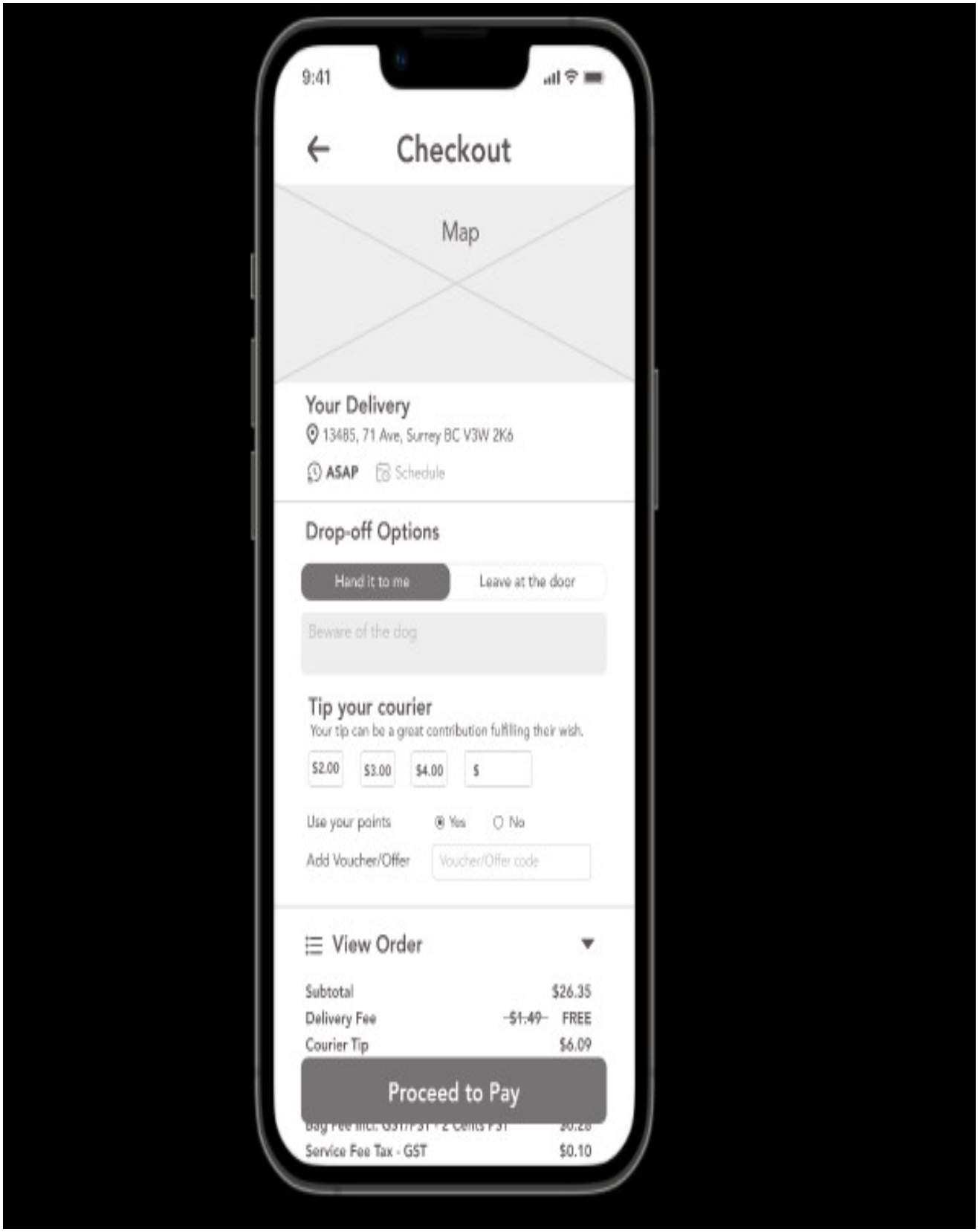

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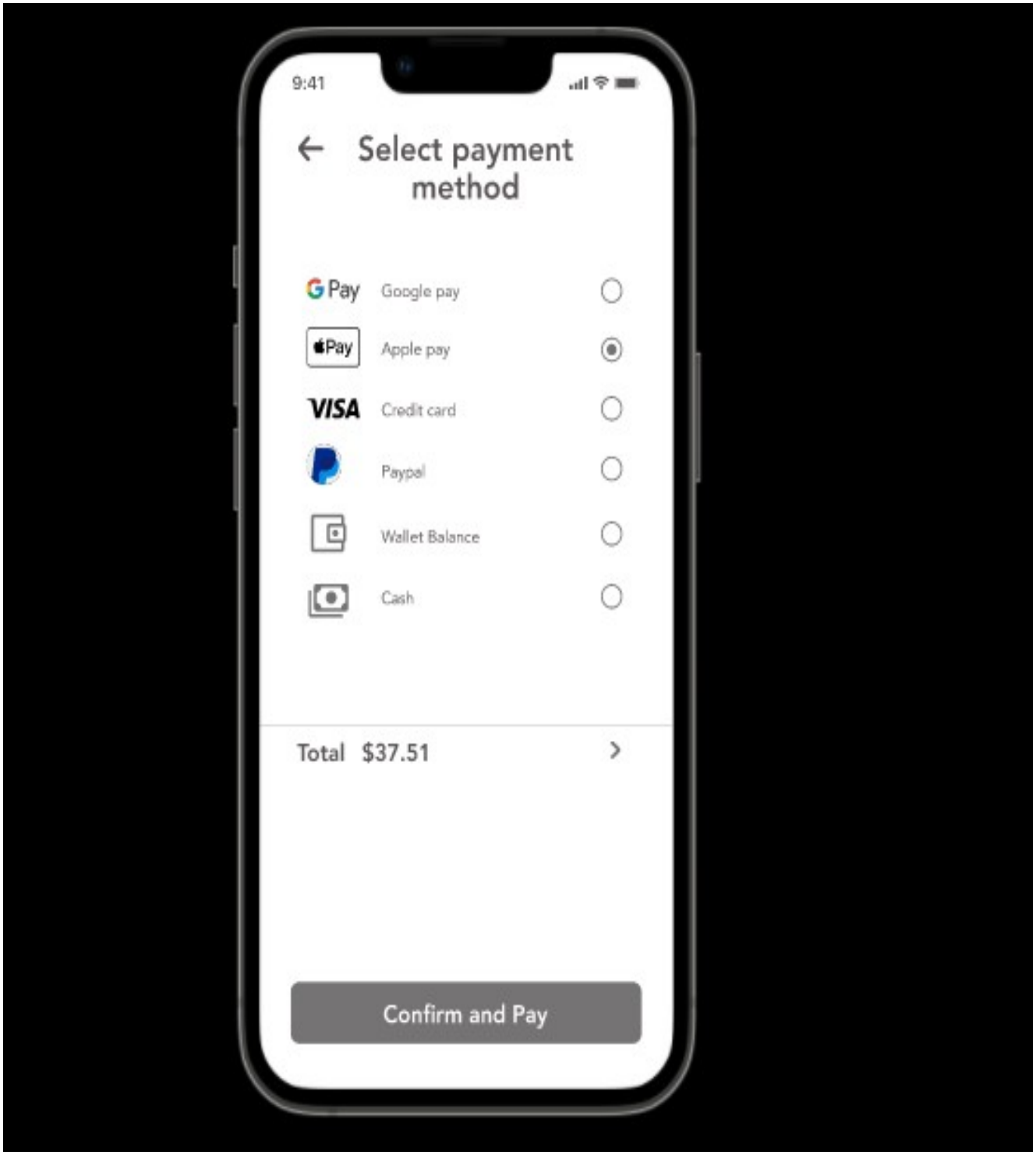

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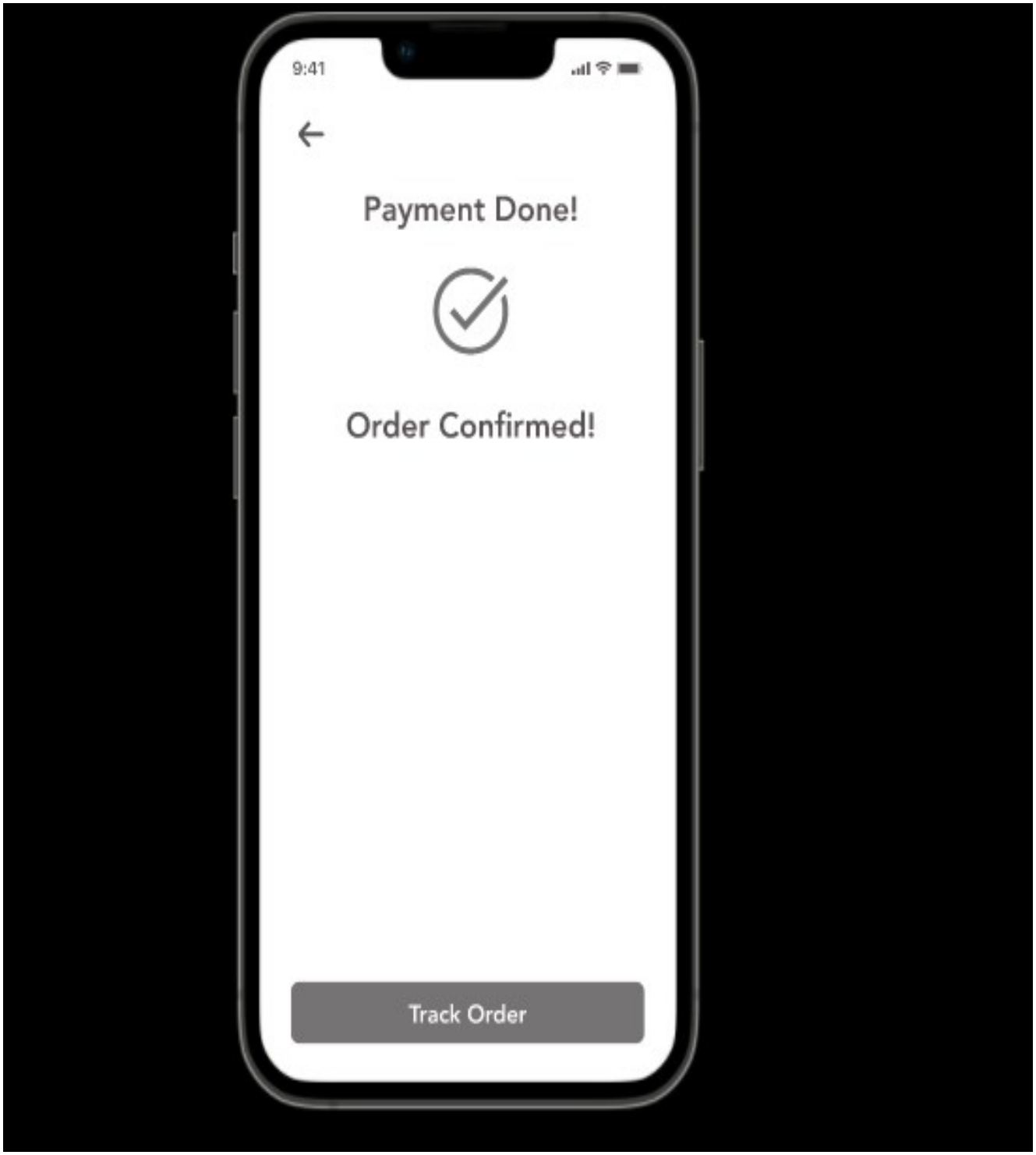

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Prototype:

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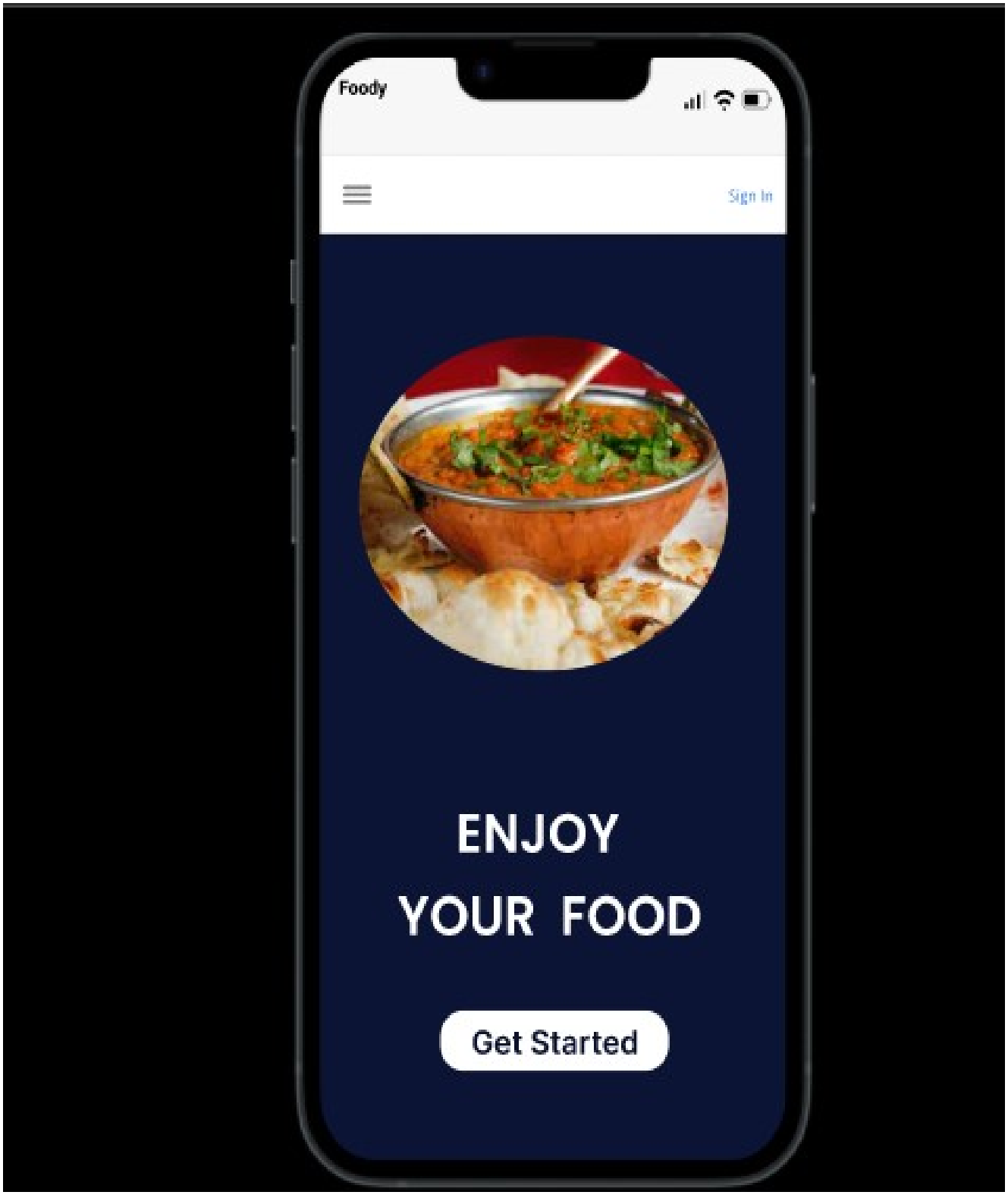

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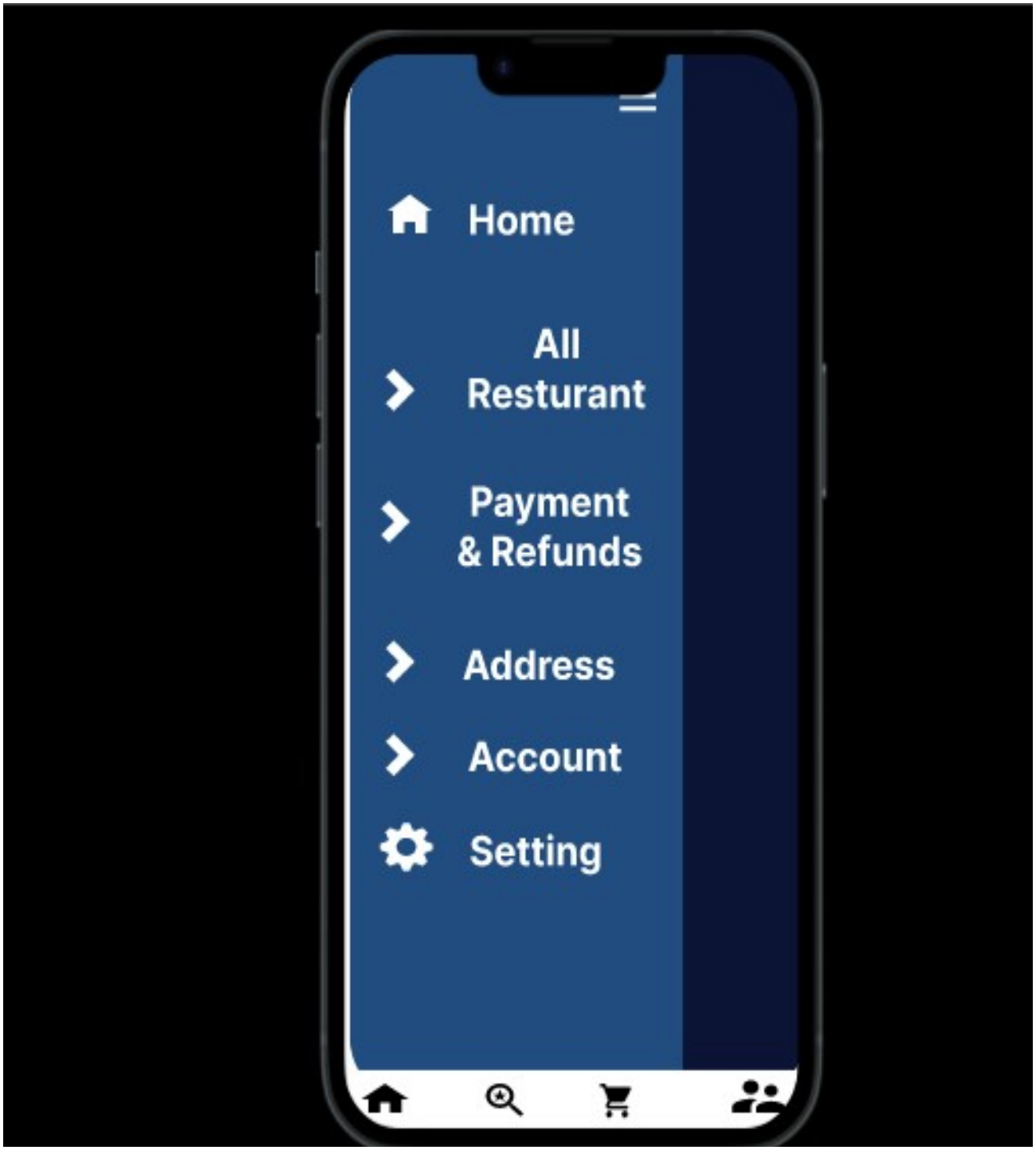

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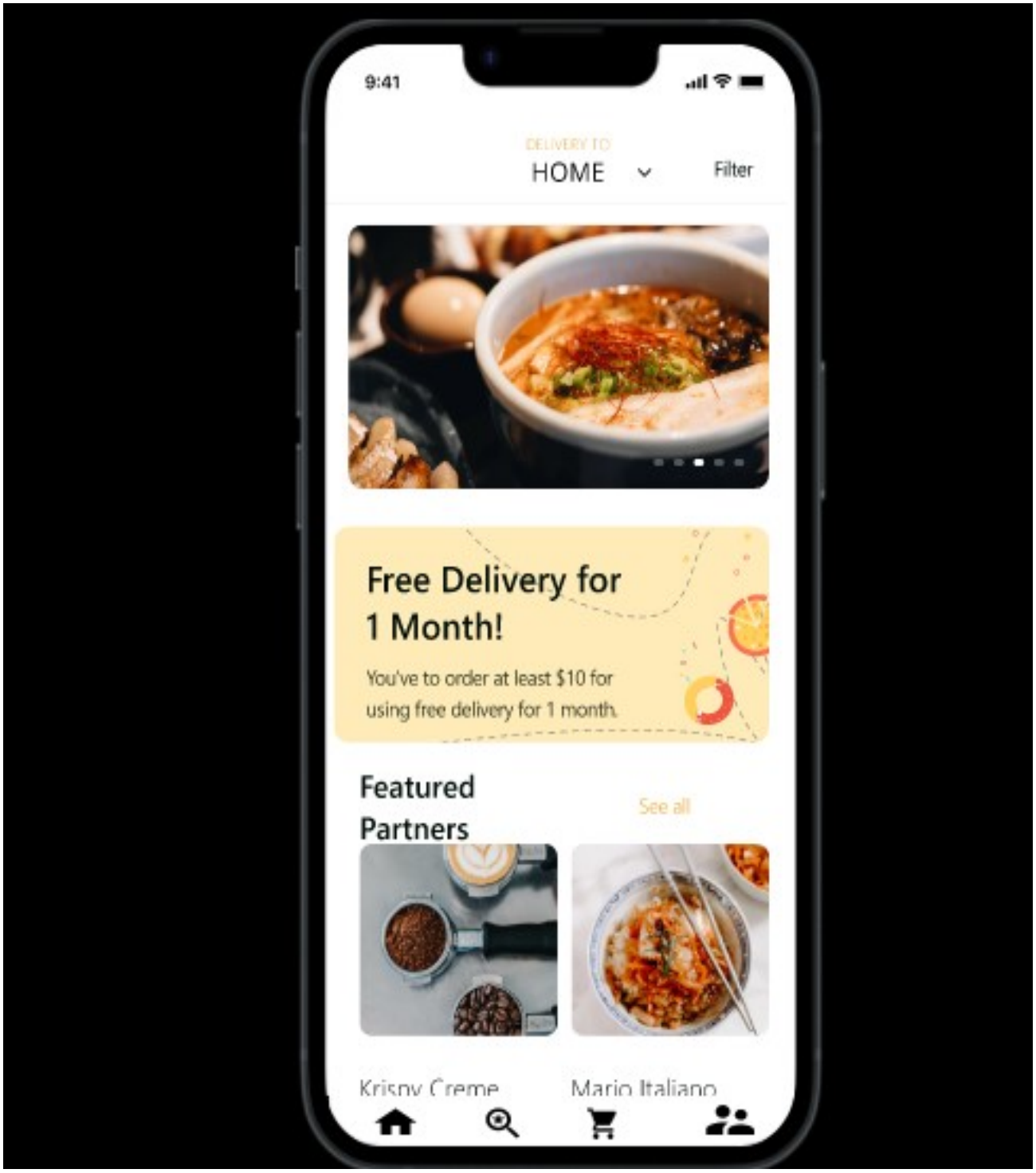

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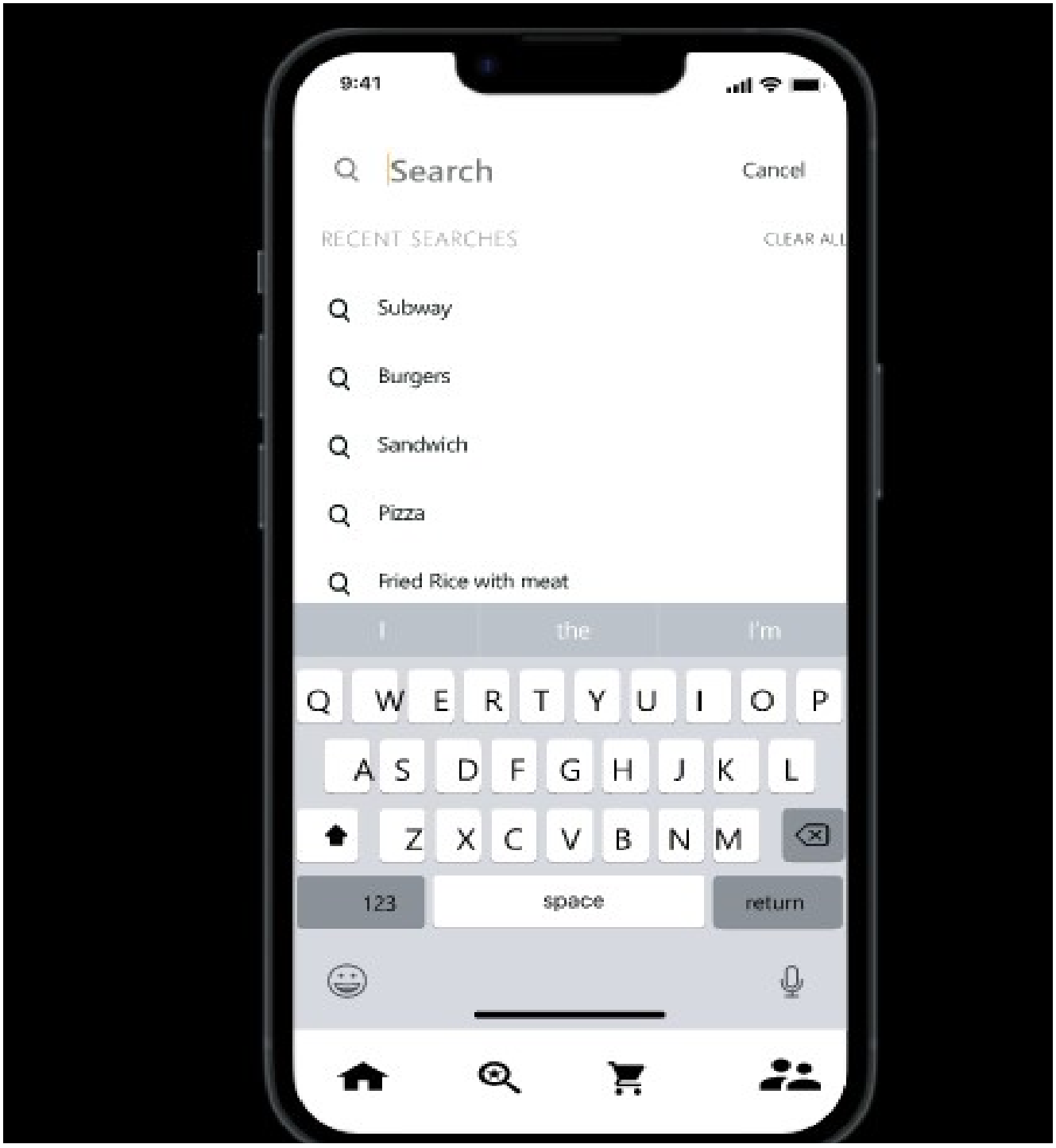

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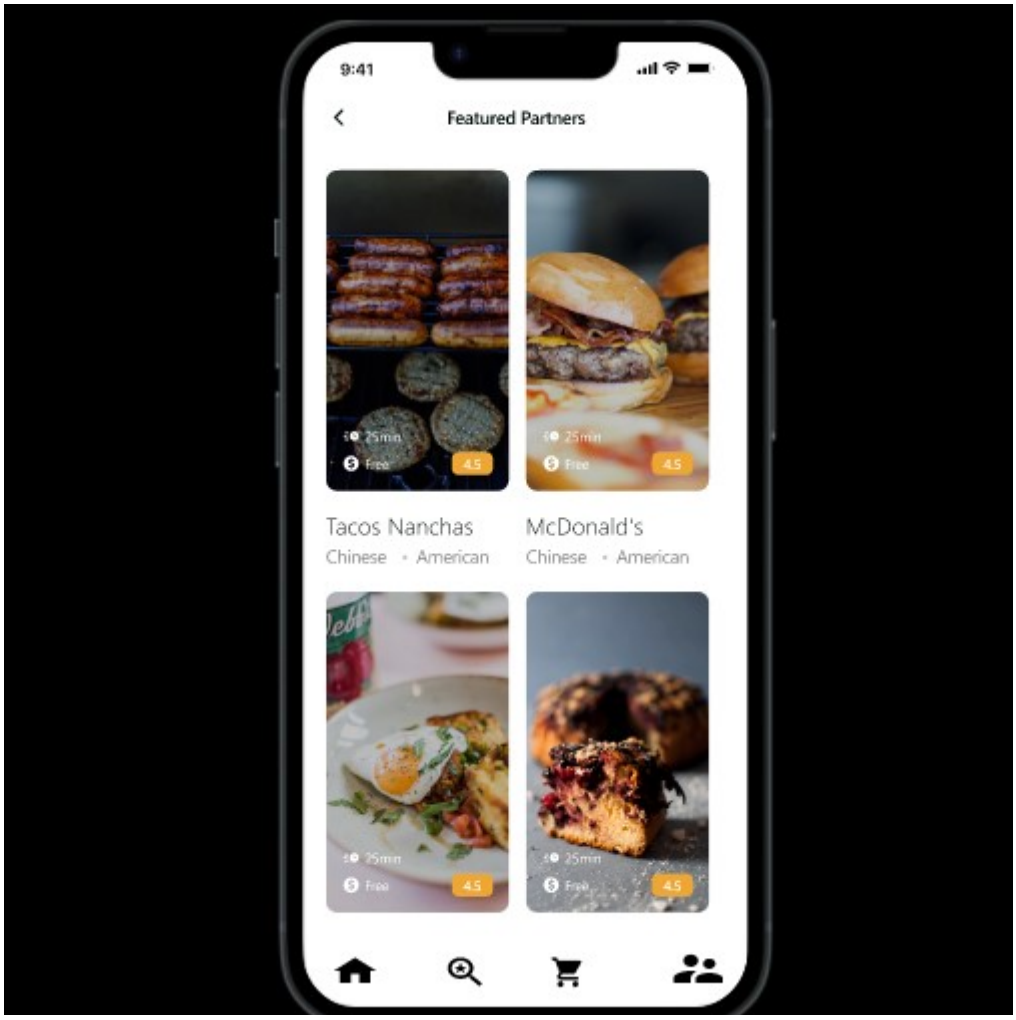

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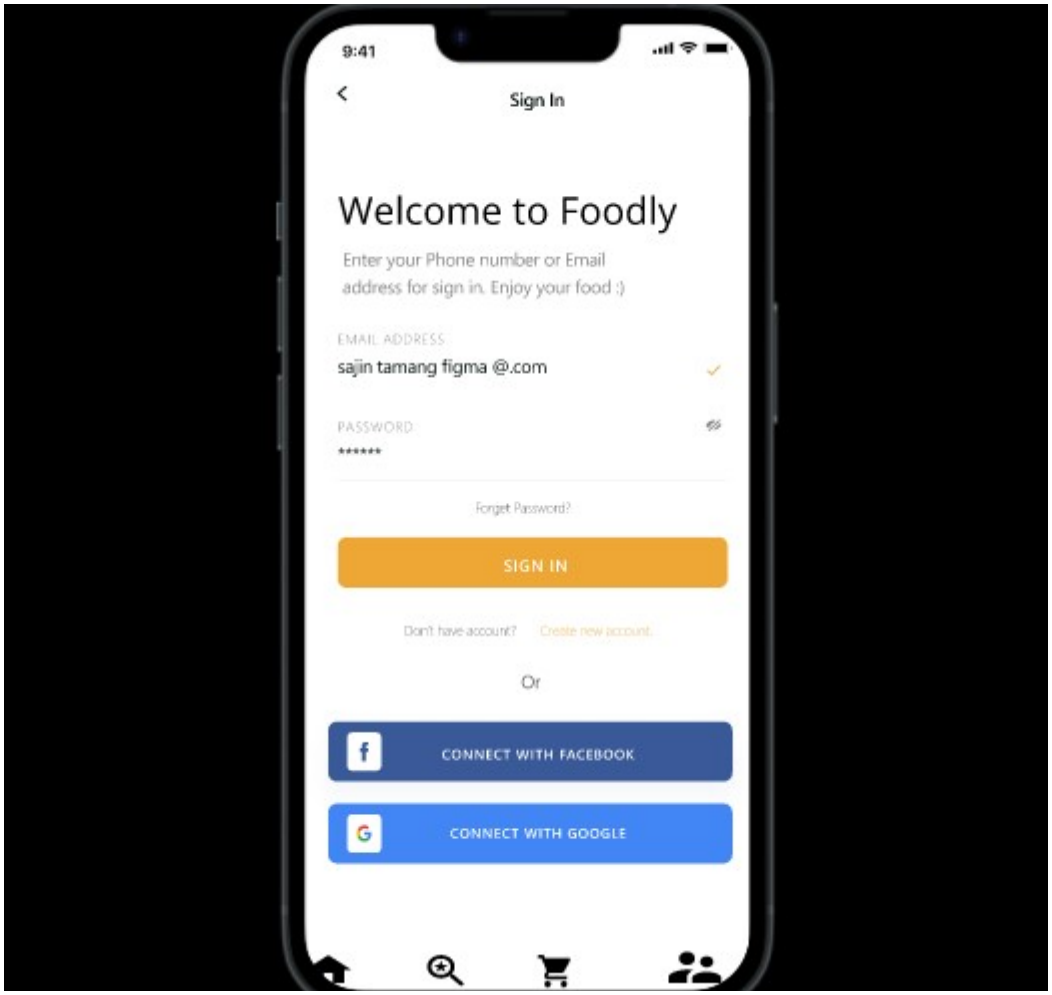

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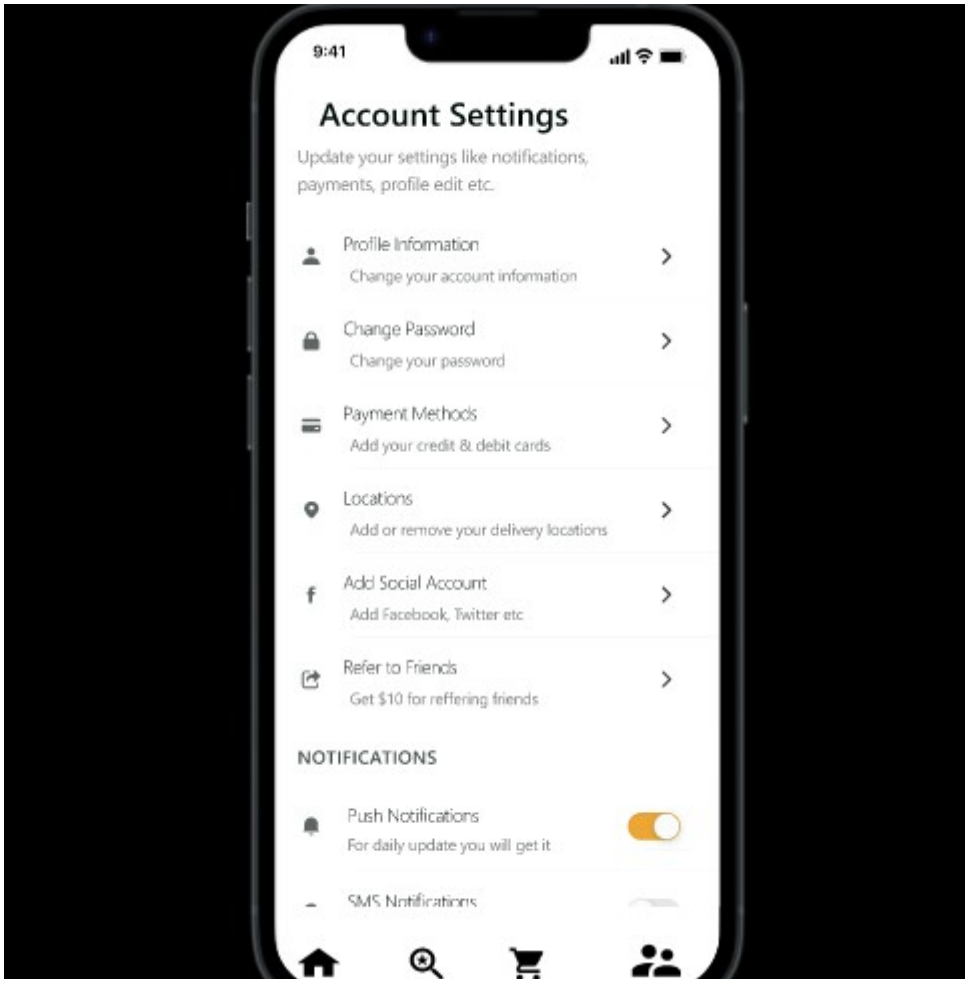

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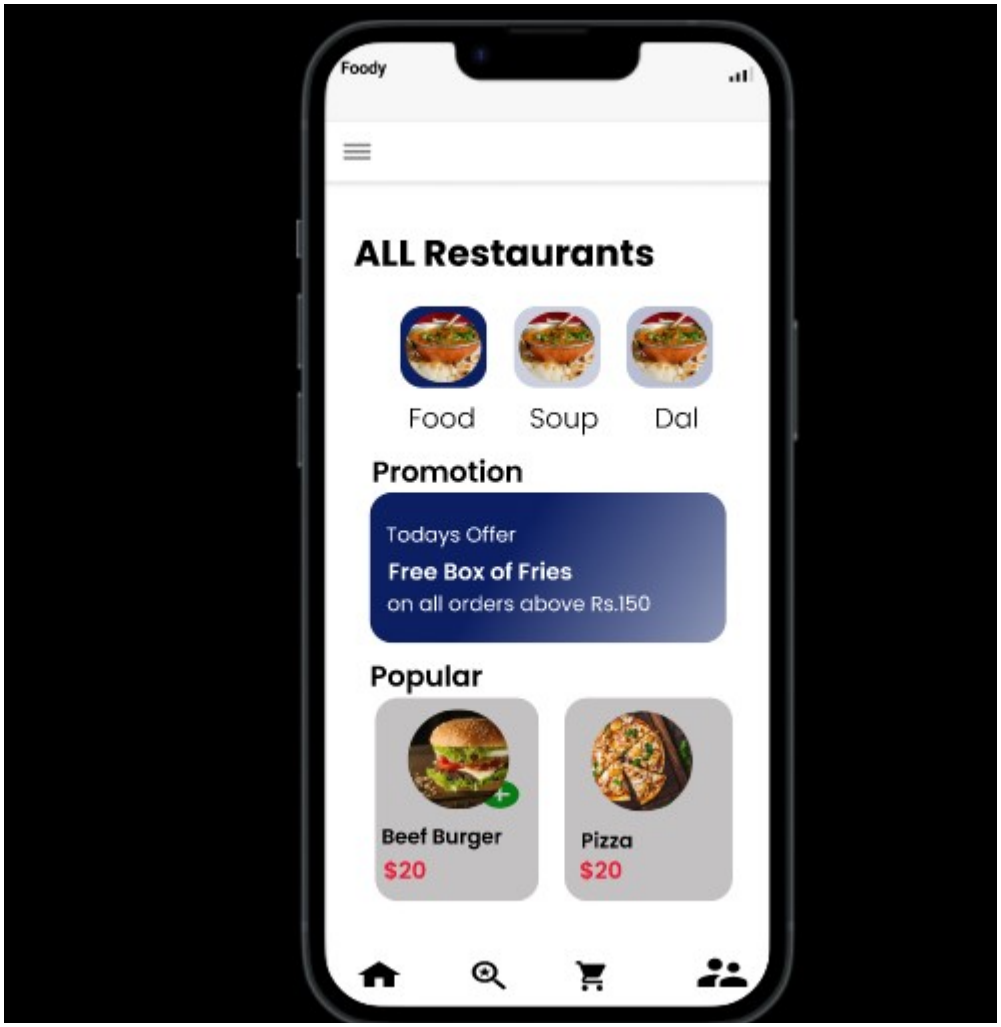

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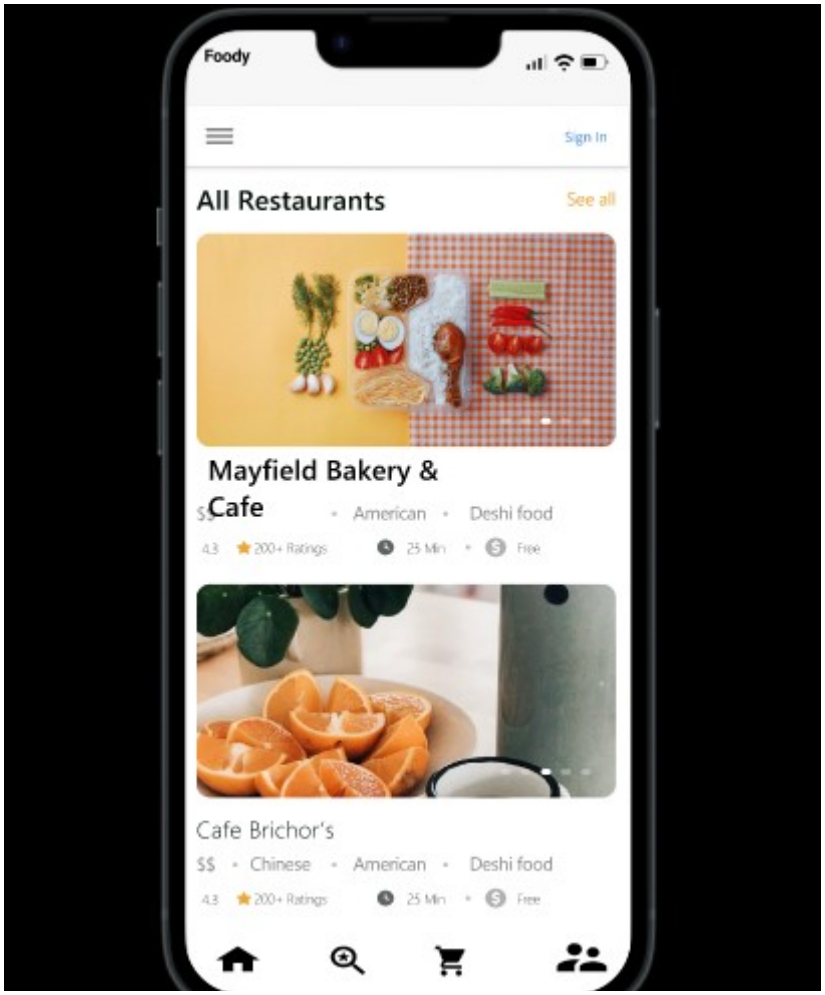

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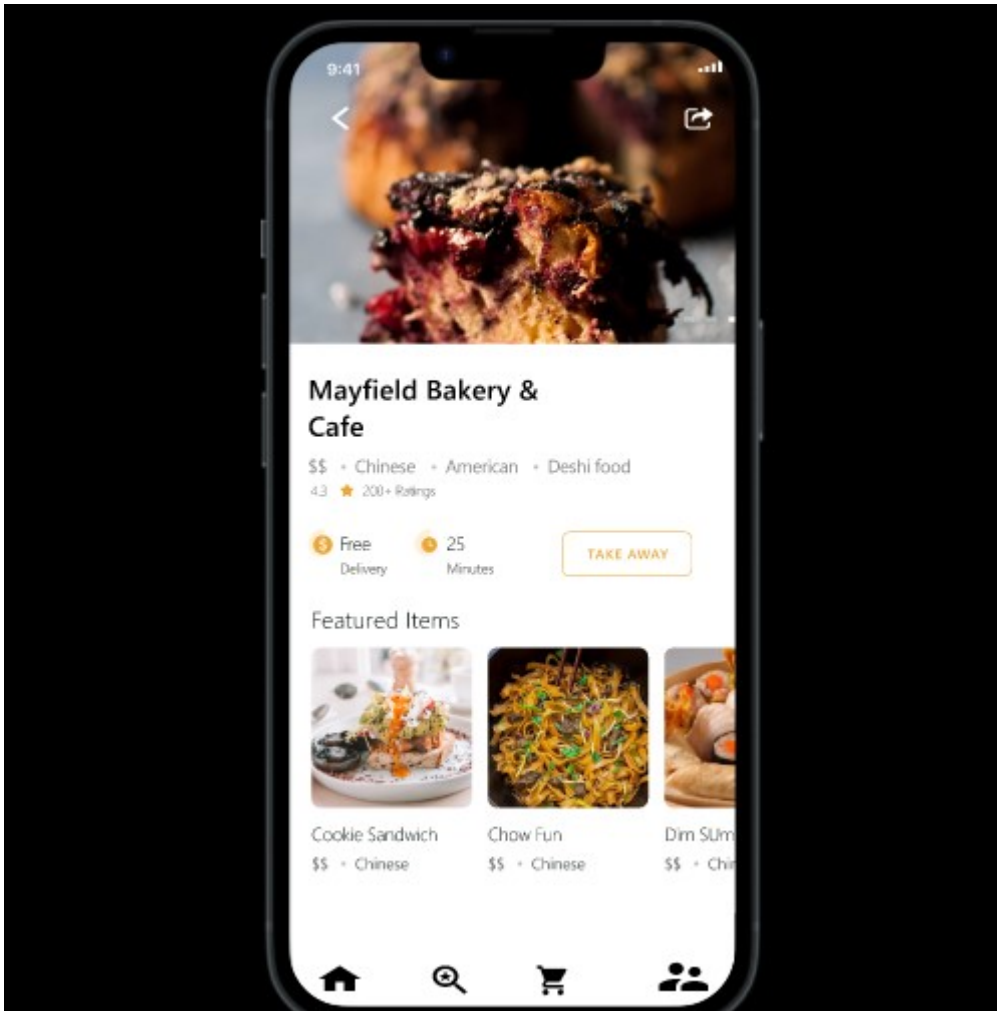

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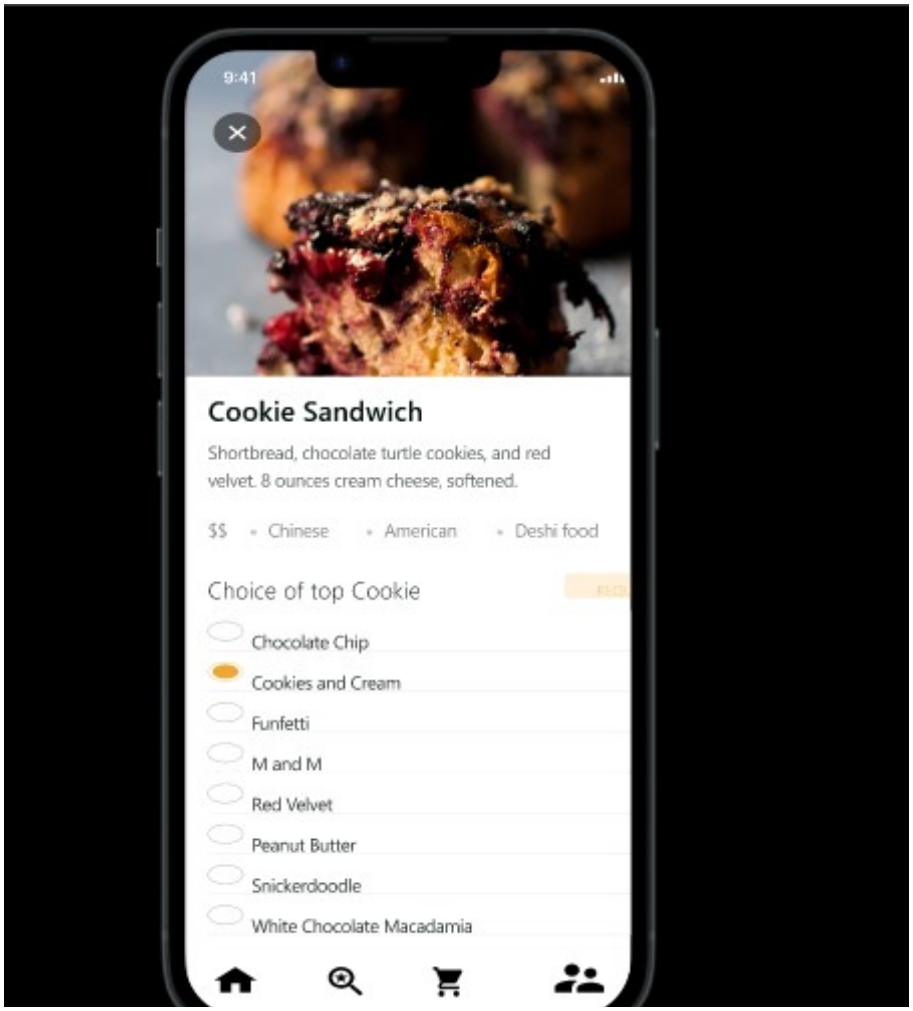

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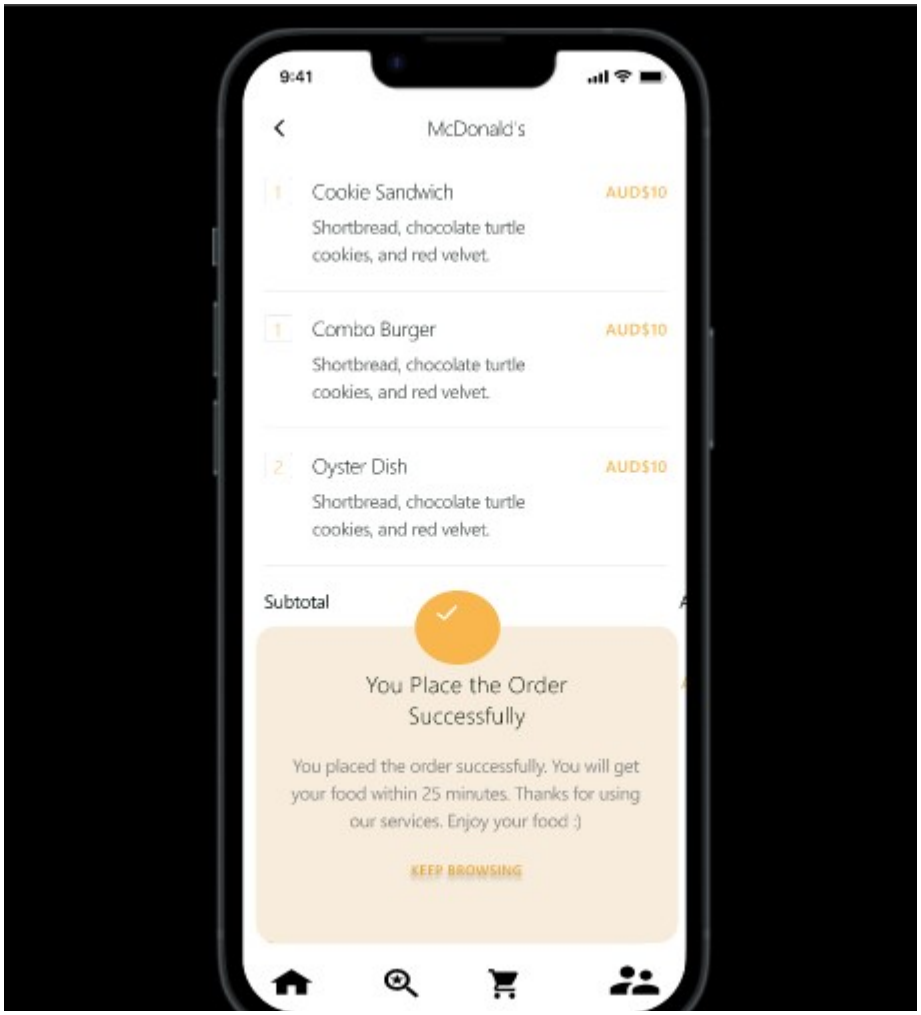

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Overall prototype connections:

Code : (Entire implementation)

```
package exportkit.figma;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;
import android.content.Intent;

public class login_activity extends Activity {

    private View _bg__login_ek3;
    private TextView login_ek4;
    private View rectangle_1_ek2;
    private View rectangle_4_ek1;
    private TextView username_ek1;
    private TextView password_ek1;
    private View _rectangle_3_ek1;
    private View _rectangle_5_ek3;
    private TextView login_ek5;
    private TextView _register_ek5;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.login);
        _bg__login_ek3 = (View)
        findViewById(R.id._bg__login_ek3); login_ek4 =
        (TextView) findViewById(R.id.login_ek4);
        rectangle_1_ek2 = (View)
        findViewById(R.id.rectangle_1_ek2); rectangle_4_ek1 =
```

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```
                    (View) findViewById(R.id.rectangle_4_ek1);
                    username_ek1 = (TextView)
                    findViewById(R.id.username_ek1); password_ek1 =
                    (TextView) findViewById(R.id.password_ek1);
                    _rectangle_3_ek1 = (View)
                    findViewById(R.id._rectangle_3_ek1);
                    _rectangle_5_ek3 = (View)
                    findViewById(R.id._rectangle_5_ek3); login_ek5 =
                    (TextView) findViewById(R.id.login_ek5);
                    _register_ek5 = (TextView)
                    findViewById(R.id._register_ek5);
                    _rectangle_3_ek1.setOnClickListener(new
                    View.OnClickListener() { public void onClick(View v) {

Intent nextScreen = new Intent(getApplicationContext(),
        home_activity.class);
                            startActivity(nextScreen);
                            }
                    });
                            _rectangle_5_ek3.setOnClickListener(new
                            View.OnClickListener() { public void onClick(View v) {
Intent nextScreen = new Intent(getApplicationContext(),
        home_activity.class);
                            startActivity(nextScreen);
                            }
                    });
_register_ek5.setOnClickListener(new View.OnClickListener() {
                            public void onClick(View v) {
Intent nextScreen = new Intent(getApplicationContext(),
        register_activity.class);
                            startActivity(nextScreen);
                            }
                    });
            }
        }
```

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Evaluation :

Conclusion:

Thus, Using Figma we have created and implemented a food ordering application can greatly benefit from conducting user analysis. By studying user demographics, behavior, preferences, and ordering patterns, the application can gain valuable insights that can be used to enhance the user experience, tailor offerings to specific user segments, and optimize various aspects of the application, such as menu options, restaurant recommendations, delivery options, and promotional campaigns. User analysis helps the application understand its user base, adapt to their needs, and ultimately improve customer satisfaction and engagement. This, in turn, can lead to increased usage, higher customer retention, and ultimately, the success of the food ordering application.

Prototype video link: Uploaded prototype video to drive and provided link
Link: http://tiny.cc/foodOrderingApp