Abstract

Taste Buds is a mobile application which is build to ease the process of ordering food online and having it ready in your hands within a few minutes. In recent times we have seen that people have now shifted to the process of ordering food through mobile apps and have adjusted to the same very quickly courtesy covid-19 situation in India. Our goal is to provide one such application which would make this process of ordering food much more user friendly, seamless and secure.

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The Screenshots of the App are attached at the end of this report

1. Introduction

Taste Buds Mobile Application is a project that is aimed at easing the process one has to undertake to order food online from a restaurant. These processes include user authentication, choosing your favourite dishes from the menu list, checking out, making secured payments and tracking your food delivery.

1.1 Scope of Work

This application can be used by anyone who has a mobile device and is ready to eat fresh and healthy food from the comfort of their home with free contact less delivery. The app is extremely easy to use and can be accessible by all age groups.

1.2 Product Scenarios

The use of product scenarios can help narrow the focus to which product features would provide the most value to customers. The basic product scenarios in the app are:

- User Authentication
- Selection of various food items from menu
- Checkout and confirm order
- Make Payments
- Track Food Delivery

2. Requirement Analysis

This section provides the requirement overview of the system. Various functional modules that have been implemented in this system are:

2.1. Functional Requirements

- Sign in functionality for new Users
- Log in functionality for existing Users with auto Log in
- Password/OTP Verification
- Edit name, email, mobile number
- Logout user
- Exploring all the available dishes
- Going through restaurant menu
- Add to cart
- Add to wishlist
- App notifications
- Manage addresses
- Making secured payments through all available payment options
- Checkout and place your order
- Tracking food delivery
- View previous orders and download invoice
- Contact support for the customer

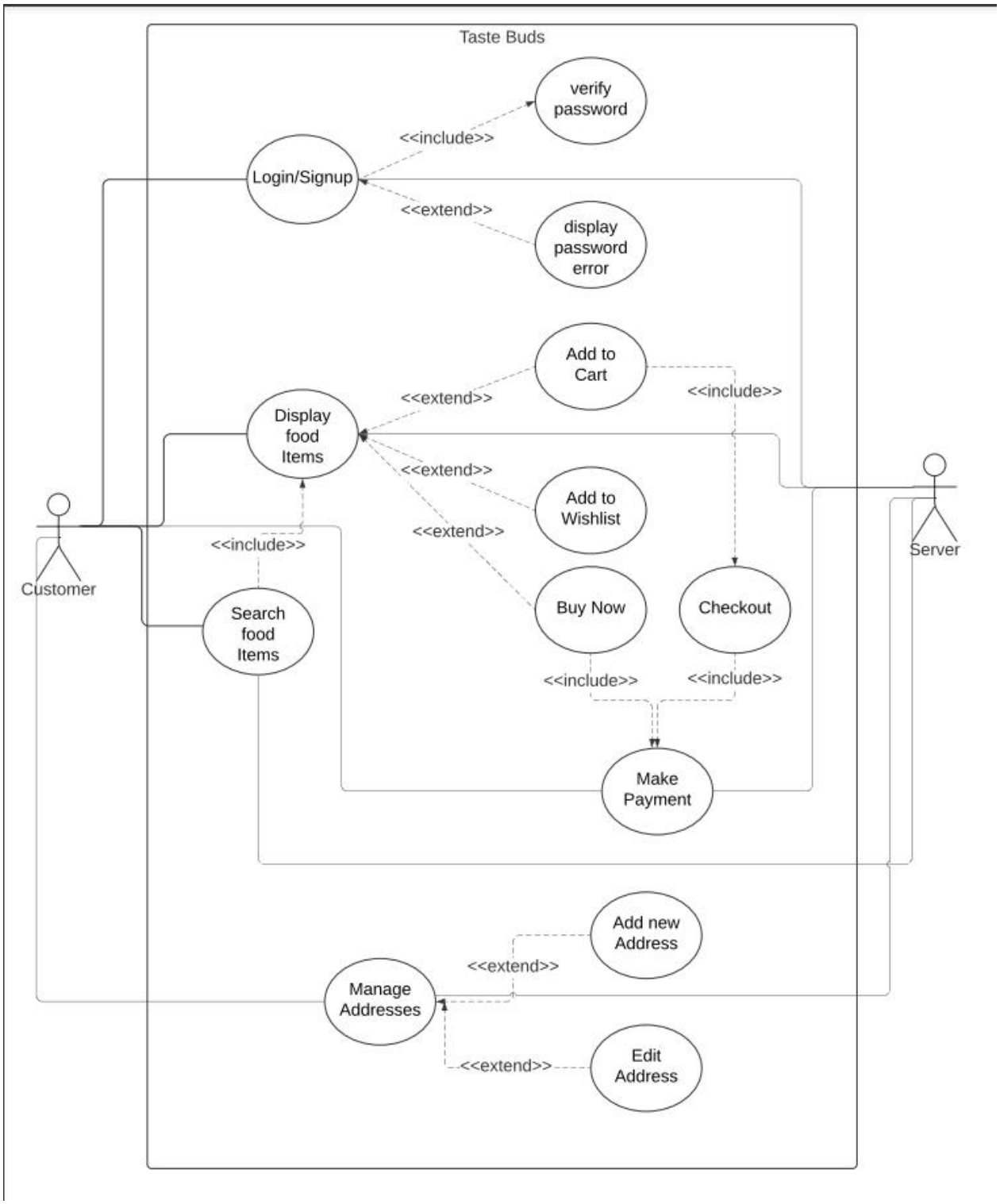
2.2. Non-Functional Requirements

- Efficiency Requirement: All User functionalities should be quick to allow seamless use of application
- Reliability Requirement: Verification of User login according to needed constraints.

- Usability Requirement: The system should be designed to be user friendly. It uses a web browser as an interface and no special training is required to use the system.
- Implementation Requirement: Mobile application use database which is developed using MongoDB.
- Maintainability and Portability Requirements: Changes (password changes, database changes) must be verified at least once a day.
- Performance Requirements: The information is refreshed at regular intervals depending upon whether some updates have occurred or not. The system shall respond to the member in less than two seconds from the time of the request submission.
- Availability Requirement: The system is available and operational 24 hours a day and 7 days a week.

2.3. Use Case Scenarios

The various use case scenarios can be seen in the following use case diagram:



3. System Design

The purpose of the System Design process is to provide sufficient detailed data and information about the system and its system elements.

3.1. User Interfaces

The system involves a mobile application, which features screens for sign up, sign in, home screen which has a search functionality and display trending meals of all cuisine, menu screen, cart and wishlist screen, notifications, payment, add and edit addresses and profile screen.

3.2. Hardware Interfaces

The supported devices are mobile phones and tablets both android and IOS.

3.3. Software Interfaces

This app is developed using flutter framework, several tools and libraries have been used to design and implement this system. Some of these include mongoose, json web tokens, node, razor pay for payments, flare animations, and many many flutter packages. The database is being operated using MongoDB atlas.

3.4. Design and Implementation Constraints

The system has been designed to overcome all constraints and therefore there don’t exist any design and implementation constraints

3.5. System Architecture:

The app named tastebuds is built over a stack of Flutter, MongoDB, NodeJS and Express. Flutter is a google project which has a stable version for mobile application development. Flutter framework uses dart as coding language which is an object oriented language and flexible over static and dynamic typed language. Flutter is used here to make the frontend of the application with various packages installed along with features required in the app. The app uses the Bloc architecture (Business Logic Component) especially made for flutter framework based mobile applications. This architecture helps in managing the state of the mobile and helps in flow of data across the application. For local data storage I have used SQL based sqflite library. Backend of the project is connected to frontend through the APIs made with NodeJS framework.

The server is made with an express package available as a npm package in NodeJS.

For encryption of data the bcrypt package is used. It generates tokens which are used to authenticate the API request coming from the client side. The tokens are based on jsonwebtoken which generates hashed token ids which generates tokens using a custom secret provided by me. The Backend is connected to mongoDB using the mongoose package and the server is deployed on the heroku platform.

For OTP services to authenticate mobile number I have used a third party platform called msg91 and to manage all the payments in the App, I have used RazorPay platform.

3.6. Design Methodologies:

I have used a combination of waterfall model and Incremental model, since the requirements were well known and due to lack of workforce all the steps i.e design, coding and testing was done by me in increments.

4. Work Done

4.1. Development Environment

The system is designed to be platform independent; The app would run on both Android and IOS. As far as the environment used at the time of creation is concerned, Android Studio for Flutter, a setup of Node, Express, MongoDB and postman for testing API's was used.

4.2. Results and Discussion

The result of this project was a mobile app, which can help anyone who wants to order food online from a restaurant. Currently this app is under development and would soon be released on both Playstore and Appstore for Android and IOS respectively.

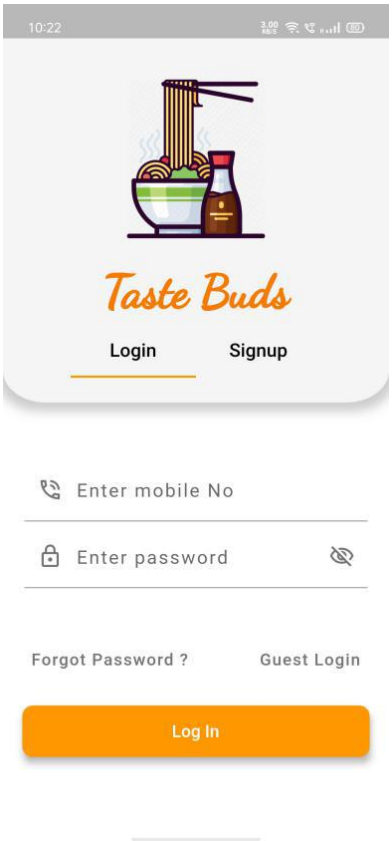
4.3. Individual Contribution of Project members

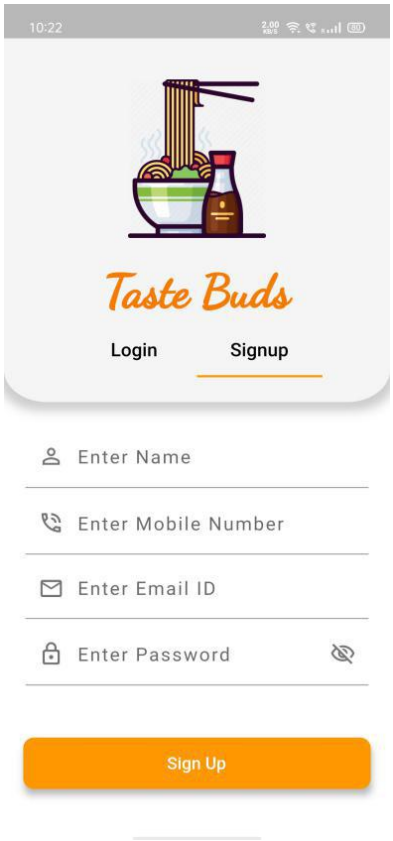
This is an individual project. The complete app is build by Jalak Patel.

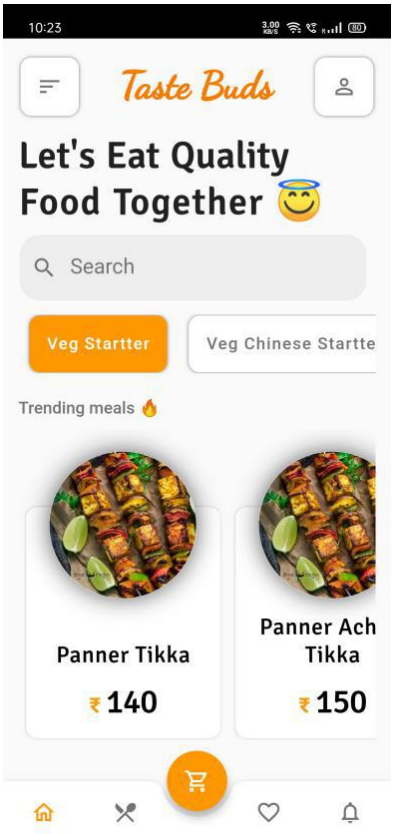
5. Conclusion and Future Plan

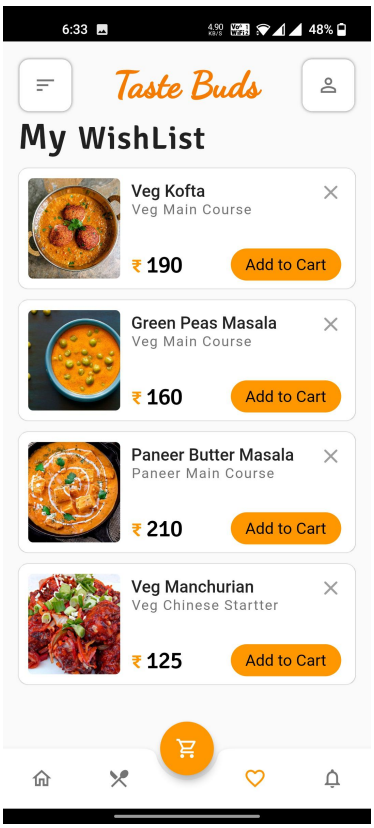
Currently this app is in its development phase with all the front-end work completed. I am working on the back-end of this project using node,which is almost completed. Setting up otp verificaton using msg91 and connection of razor pay for managing payments is also done.Currently, we are working on building the client side website and delivery tracking. After the development phase, we would start the testing of this app before the launch on playstore and appstore.

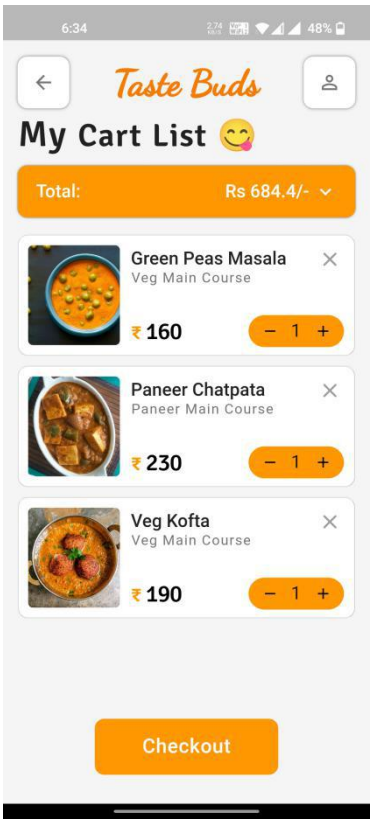
Screenshots:

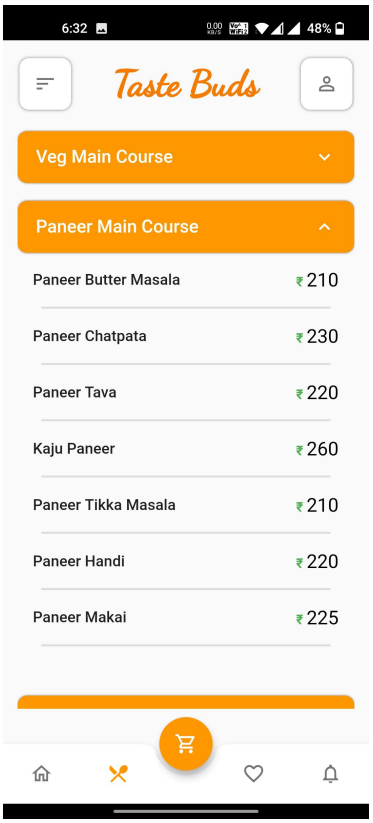


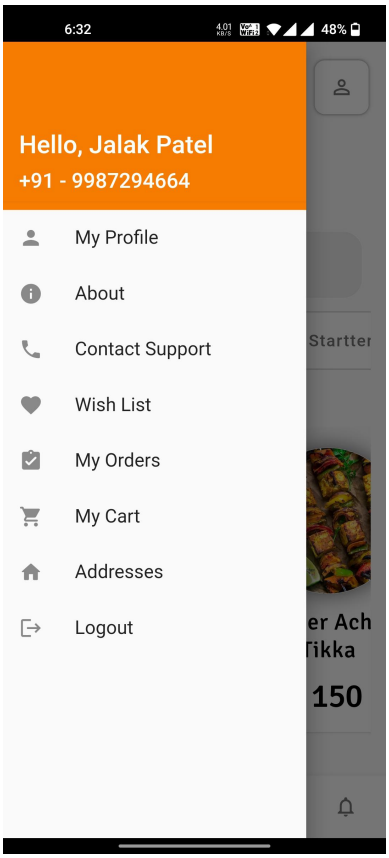








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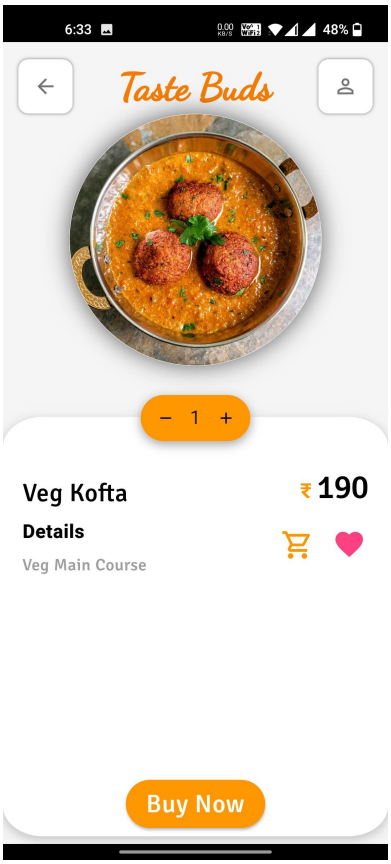
48%
Hello, Jalak Patel
+91 - 9987294664
My Profile
About
Contact Support
Wish List
My Orders
My Cart
Addresses
Logout
Startter
er Ach
Tikka
150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Taste Buds
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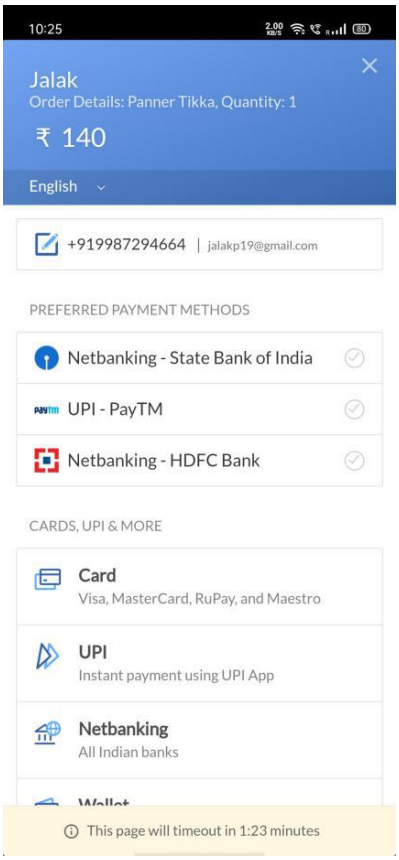
Veg Kofta
₹ 190
Details
Veg Main Course
Buy Now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Jalak
Order Details: Panner Tikka, Quantity: 1
₹ 140
English
+919987294664 | jalakp19@gmail.com
PREFERRED PAYMENT METHODS
Netbanking - State Bank of India
UPI - PayTM
Netbanking - HDFC Bank
CARDS, UPI & MORE
Card
Visa, MasterCard, RuPay, and Maestro
UPI
Instant payment using UPI App
Netbanking
All Indian banks
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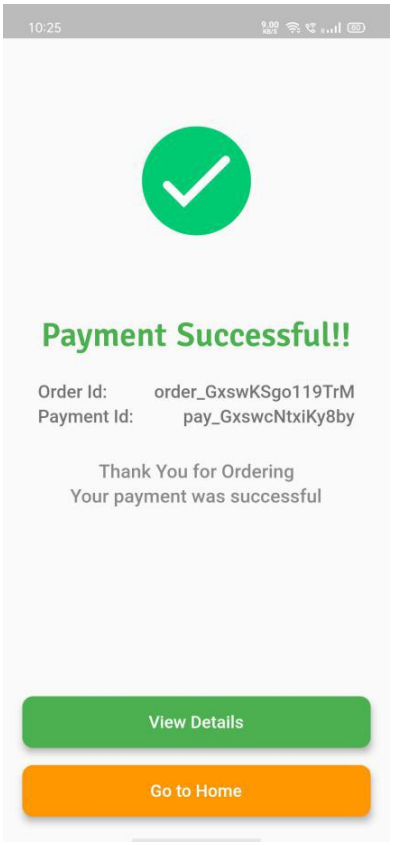
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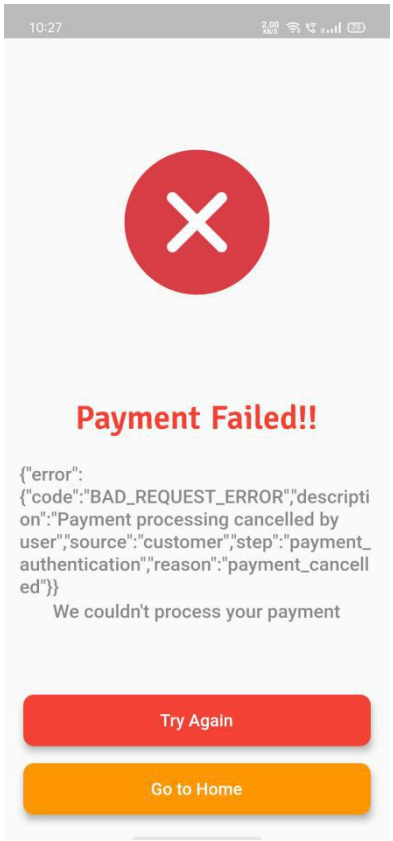
Thank You for Ordering
Your payment was successful
View Details
Go to Home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Payment Failed!!
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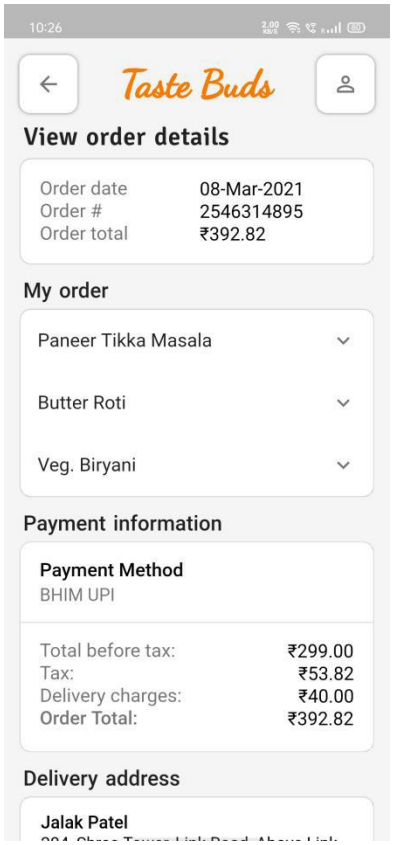
We couldn't process your payment
Try Again
Go to Home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Taste Buds
View order details
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Order total ₹392.82
My order
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Butter Roti
Veg. Biryani
Payment information
Payment Method
BHIM UPI
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Tax: ₹53.82
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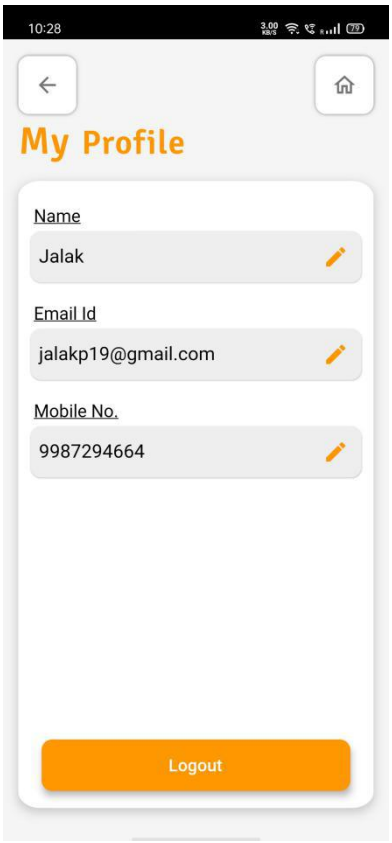
Delivery address
Jalak Patel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Email Id
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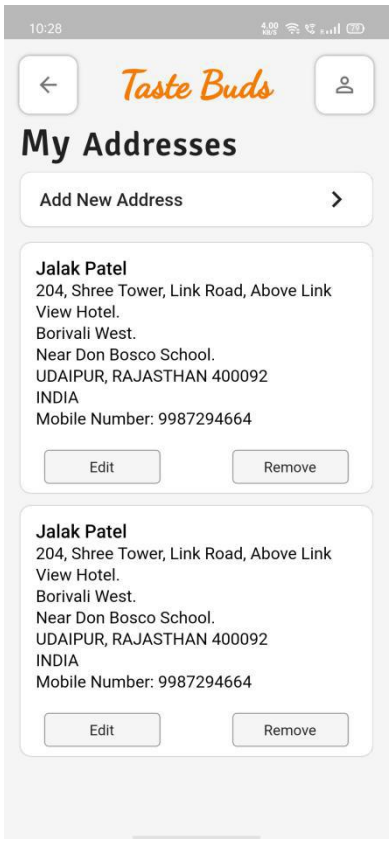
Mobile No.
9987294664
Logout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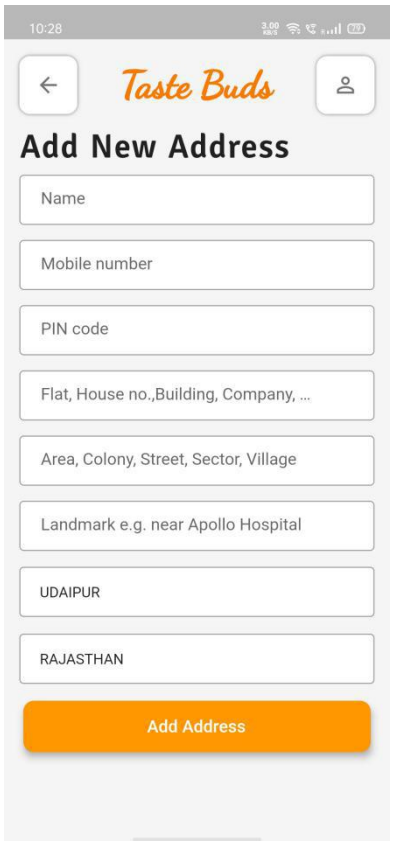
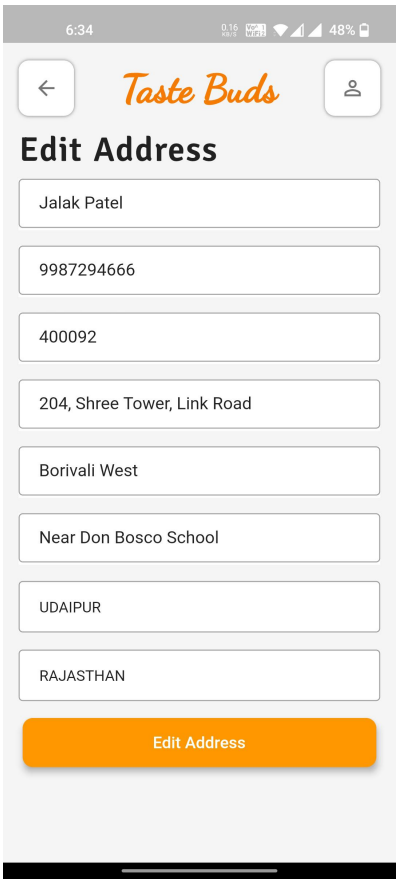
Taste Buds
My Addresses
Add New Address
Jalak Patel
204, Shree Tower, Link Road, Above Link View Hotel.
Borivali West.
Near Don Bosco School.
UDAIPUR, RAJASTHAN 400092
INDIA
Mobile Number: 9987294664
Edit
Remove
Jalak Patel
204, Shree Tower, Link Road, Above Link View Hotel.
Borivali West.
Near Don Bosco School.
UDAIPUR, RAJASTHAN 400092
INDIA
Mobile Number: 9987294664
Edit
Remove


10:28
Taste Buds
Add New Address
Name
Mobile number
PIN code
Flat, House no.,Building, Company, ...
Area, Colony, Street, Sector, Village
Landmark e.g. near Apollo Hospital
UDAIPUR
RAJASTHAN
Add Address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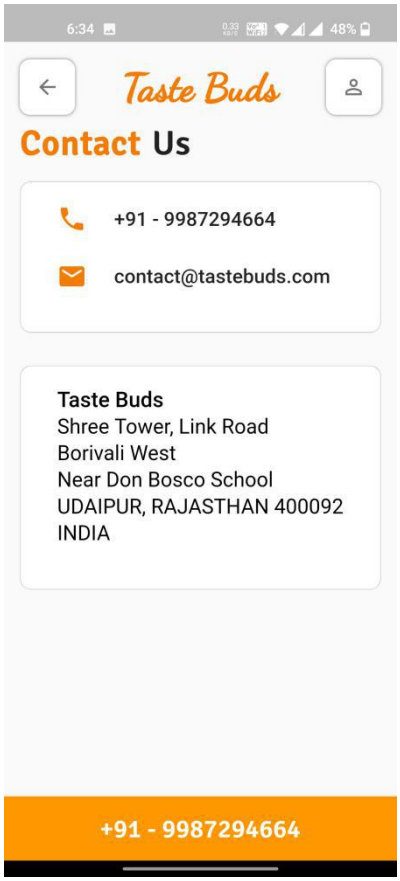
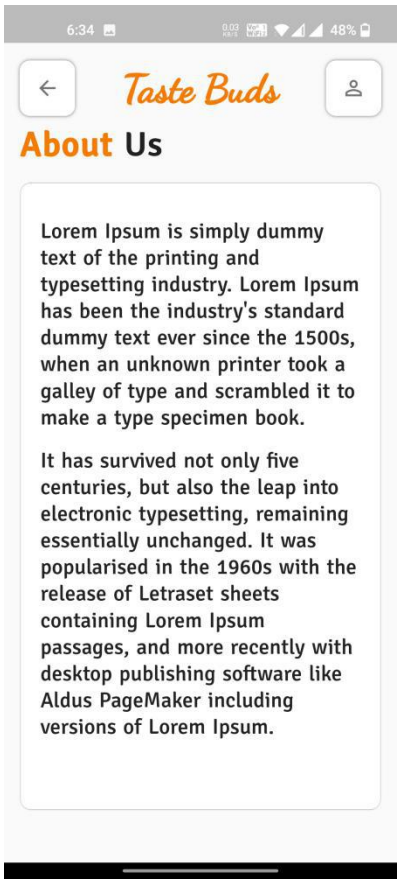
48%
Taste Buds
Edit Address
Jalak Patel
9987294666
400092
204, Shree Tower, Link Road
Borivali West
Near Don Bosco School
UDAIPUR
RAJASTHAN
Edit Address


6:34
48%
Taste Buds
Contact Us
+91 - 9987294664
contact@tastebuds.com
Taste Buds
Shree Tower, Link Road
Borivali West
Near Don Bosco School
UDAIPUR, RAJASTHAN 400092
INDIA
+91 - 9987294664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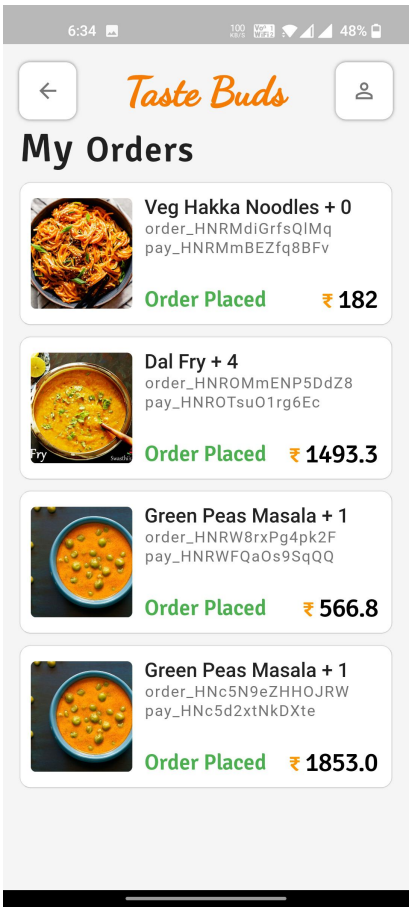
48%
Taste Buds
About Us
Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.
It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.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48%
Taste Buds
My Orders
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pay_HNRMmBEZfq8BFv
Order Placed
₹ 182
Dal Fry + 4
order_HNROMmENP5DdZ8
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Order Placed
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Green Peas Masala + 1
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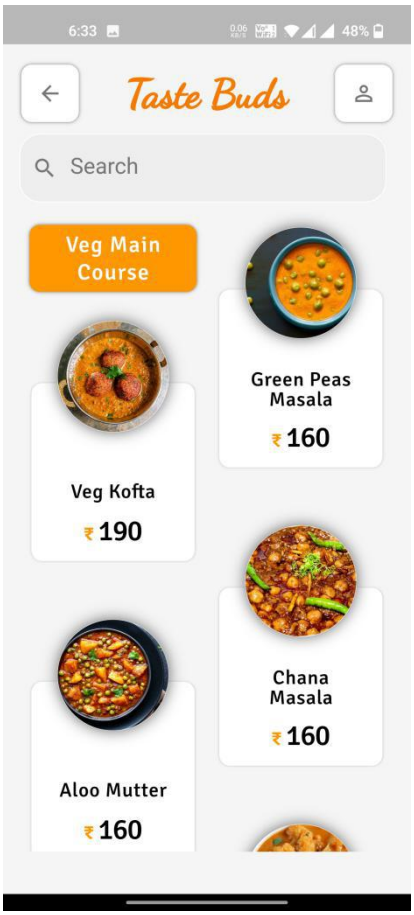
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Taste Buds
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Veg Main Course
Veg Kofta
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Green Peas Masala
₹ 160
Aloo Mutter
₹ 160
Chana Masala
₹ 160