JAVA INSTITUTE
for Advanced Technology
INNOVATIONS FOR THE KNOWLEDGE SOCIETY
ISO 9001:2008 Certified Institute

# Java Institute for Advanced Technology

## [Handheld Device Programming II]

[JIAT/ /EX/01]

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[200001102556]

GAMPAHA

# Acknowledgments

I want to precise my sincere because of my lecturer Mr. Achintha sir and other lecturers for providing me with steerage and suggestion. while not his steerage, suggestion, and inspiration, it absolutely was terribly tough on behalf of me to complete the project. I am conjointly grateful to my family and every one for supporting me to complete it by time. I conjointly appreciative to any or all my friends, classmates for supporting me through the journey.

# Abstract

The aim of the project was to create a responsive on-line application for a restaurant which helps customers to order foods on-line. alongside this, the applying must be responsive because the application may be accessed through devices with completely different size of screens. A deep analysis has been created on the sooner works for automating the food ordering processes. Application is developed using android. when developing the application, completely different testing methods are wont to realize bugs within the system and make sure the quality.

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# 1 Introduction

## 1.1 Project Overview

The project sets to develop an food ordering and delivering application for a restaurant. several industries now quickly adopting technologies. Restaurant business additionally embraces differing types of technologies that build daily processes easier and quicker. However, the adoption of technology in restaurant business is slower compared to different industries. Restaurants will use technology in several ways that. one amongst them is to create associate online presence by an online application which can additionally facilitate in on-line ordering. Because the use of internet-based ordering system is in rise in today’s world.

So, the marketplace for on-line food delivery currently remains as massive as ever. yet, a huge section of this market continues to be being overpoweringly offline. When it involves shopping for merchandise or foods on-line, customers need to be ensured regarding the quality of the foods that customer goes to shop for. folks tend to eat foods that's suggested by their friends or nearest one. This issue is often achieved in an internet food ordering system by utilizing and integration social media properly. An internet application currently are often accessed smartphones. So, a contemporary net application ought to be optimized for each quite devices.

## 1.2 Project Aim & Objectives

The project aims to make an internet based mobile application for a restaurant, that automates food ordering application. it'll additionally facilitate the shop owner to manage the mobile orders and view the standing. The owner will add menus and obey with the system. The system additionally incorporates a easy mobile-friendly application which may be used through different types of smartphones and screens.

In order to attain the mentioned aim, following objectives to be achieved:

1. an in-depth literature review are going to be conducted to seek out the past work done to automatize the food ordering method of edifice.

2. acceptable ways and methodologies are going to be used for coming up with and developing the complete application in systematic approach.

3. android java used for developing the backend and frontend of the application.

4. Customer will login and register through their email.

5. The application are going to be tested properly to make sure the standard of the system

6. There is used Google Map Api and Direction Api, it is easy to go to customer location and customer could see rider’s location using application.

# 2 Application Description

There are a unit sure needs the planned application should fulfill the objectives of the project. The requirements to be achieved:

In Restaurant Seller Application;

- Seller can add food Categories.
- Seller can add new food item, update, delete and set discount to related category food item.
- Seller can approve or not a new rider, when rider is registering.
- Seller can view all orders and filter orders by current status.
- Seller can add, update Banners.
- Seller can view reviews and riders' info
- Seller can view earnings from delivered orders
- Seller can view orders related by rider
- Seller can assign a available rider when order is completed

In Customer Application;

- Customer can view food category, food name, price, image, discounts, available or not
- Customer can add food to favorite list
- Customer can add to cart food items
- Customer can increase or decrease food item count in the cart items and can delete it
- Customer can search food items
- Customer can view shop info, shop reviews, and make a call a to restaurant in one button
- Customer can get notification, such as order current status
- Customer can view past orders
- Customer can track orders after order on the way status

In Rider Application;

- Rider gets notification when new delivery order came
- Rider can view orders
- Rider can get direction to customer and make call to customer

## 2.1 Functional Description

There are two mobile applications in three roles, Restaurant Seller, Customer and Rider. Functions corresponding to each role following introduced.

### 2.1.1 Restaurant Seller Application

Figure 1 is a use case diagram (UCD) which is the main functions in the Seller application.

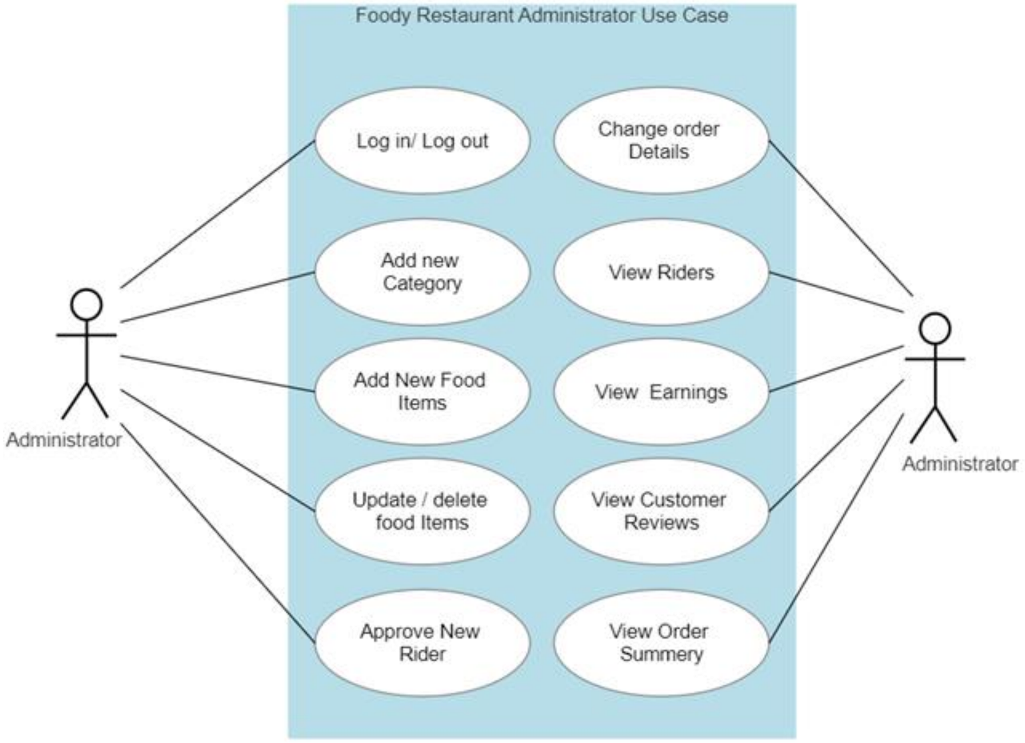


*Figure 1: use case Seller Application*

Log In / Log Out

Properties:

- Email
- Password

When the Seller displays login page, Seller needs to type correct email and password which is firebase authorized. If forgot the password, or change the password using forgot password view and password reset email come to inbox.

Add new Category

Properties:

- Category Image
- Category Title
- Category Description

When Seller goes to Add category menu, can add a new category by entering category title, description and add an image. It is saved in Firebase Firestore and display to customer in their app

Add new Food Item

Properties:

- Food Image
- Food name
- Food Description
- Select Category
- Price
- Discount

When Seller enters Add food item menu, can add image, description, price, and select category from drop down list. If there is a discount, can enter discount price and percentage.

Update / Delete Food Item

Properties:

- Food Image
- Food name
- Food Description
- Select Category
- Price
- Discount
- Delete icon
- Edit Icon

When Seller enter this menu, Seller display all food items in a list. When item click, open a bottom sheet dialog, and display food info. If click edit button Seller can edit details. If click delete icon food will be deleted.

Approve New Riders

Properties:

- Rider Info Display

In rider management page, Seller display all riders with their active status or inactive status. If a new rider registers with rider app, Seller to Approve or decline

Change Order Status

Properties:

- Status edit button
- Rider assigns button
- Rider Info button

If come a new order Seller can edit order status while ready to deliver. After Complete order Seller can assigned a available rider. Only that can when the status in “Completed”.

View Riders

Properties:

- Rider Details
- Rider call Button
- Rider related Orders

In this view Seller can display approved riders only. And there are Orders related by rider.

View Earnings

Properties:

- Total Earning
- Delivered Orders

In this view display delivered orders only. And there calculate total earnings from it.

View Customer Review

Properties:

- Reviews
- Ratings

In this view Seller can display all customers reviews and ratings one by one with customer details.

## 2.1.2 Restaurant Customer Application

Figure 2 is a use case diagram (UCD) which is the main functions in the Customer application.

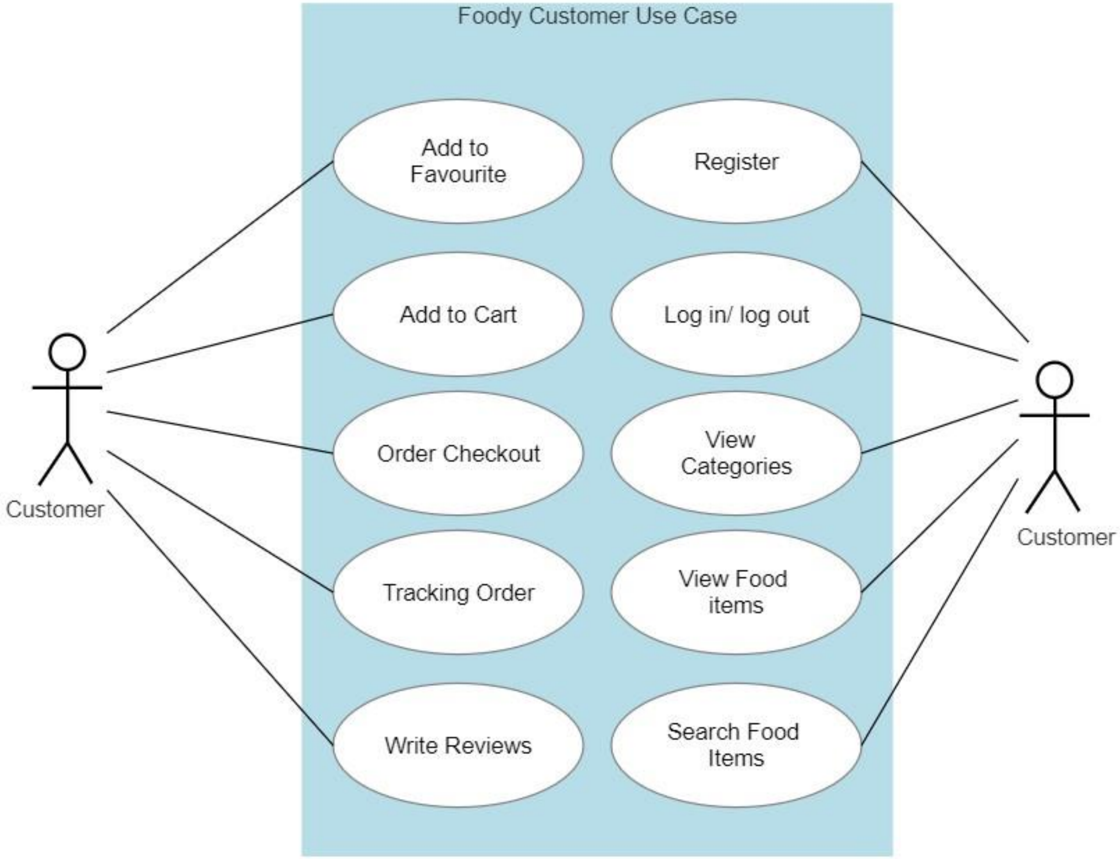


*Figure 2:Use Case diagram for Customer*

### Register

Customer must register an account first if customer haven’t already account to use this application. Customer can register with their google account or with email. If sign in with google account, customer goes to another view with detect location and enter phone number view. And customer have not google account, they can register with valid email. In this window customer must enter full name, phone number, email, password, confirm password, and location. After this customer directly move to home page.

### Log In / Log Out

When customer has valid Account, fill username and password or sign In with google can log in to account. If customer wants to log out from account customer can select log out button.

### View Categories

In home page customer can horizontally scroll categories and select it. When the select category customer directly move to another view include category related foods.

### View Food Items

In previous preview when select the food item, customer popup bottom sheet dialog includes food details, price. Customer can increase / decease food item count and easily add items to cart for checkout.

### Search Food Items

So customer didn’t select category and move to search view, customer can filter form all foods by name. It is very helpful to choose a food.

### Add to Favorites

If customer want a Wishlist, customer easily can click on the heart shape check box in the food item view and it is added to favorites.

### Add to Cart

Customer wants to checkout food items; customer must add foods to cart. In the Cart, customer can deleted select items or increase/ decrease item count on it. And customer display total of price without delivery charges.

### Order Checkout

After adding food to cart, if customer and shop distance lower than 5km customer can check out. Neither customer popup alert dialog to unable to deliver this location message.  customer clicks on checkout button, popup new window came. It shows customer mobile phone number and delivery address, and customer selected foods with price, delivery free and total. After click checkout, customer order placed successfully and sent notification to Seller to have a new order.

### Tracking Order

After Rider change order status to “On the way”, customer can track food item from clicking map button. This section used map api and direction api. It is helpful to tracking path.

### Write Review

Customer can write review about foods, riders, service, or any using this feature. And customer can rate with 5 star or any. Any customer can view all reviews about restaurant from shop info in menu.

### 2.1.3 Restaurant Rider Application

Figure 3 is a use case diagram (UCD) which is the main functions in the Rider application.

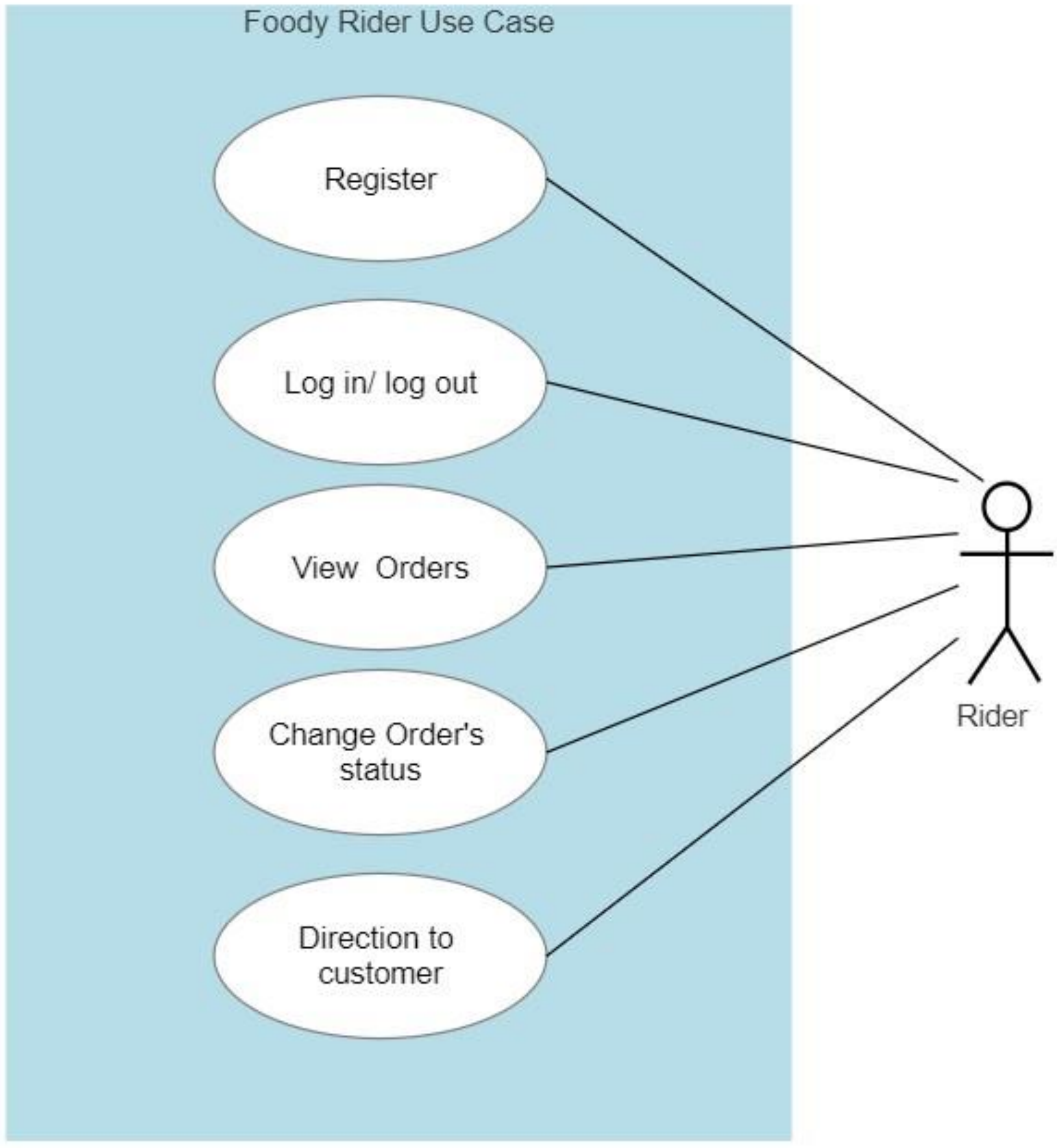


*Figure 3:Use Case diagram for rider*

### Register

Rider muster register an account first, with valid email and password, after successfully registering, popup alert dialog about sends details to shop owner and Seller approve a rider after rider can log in to account.

### Log In / Log Out

When Rider account approved, rider can log in to account using registered valid email and password entering.

### View Orders

Seller assign a new to rider. Rider popup new notification about new delivery. And rider can view all orders rider had.

### Change Order Status

After rider pick up delivery, rider can change order status using edit icon. So orders status sent to customer as new notification.

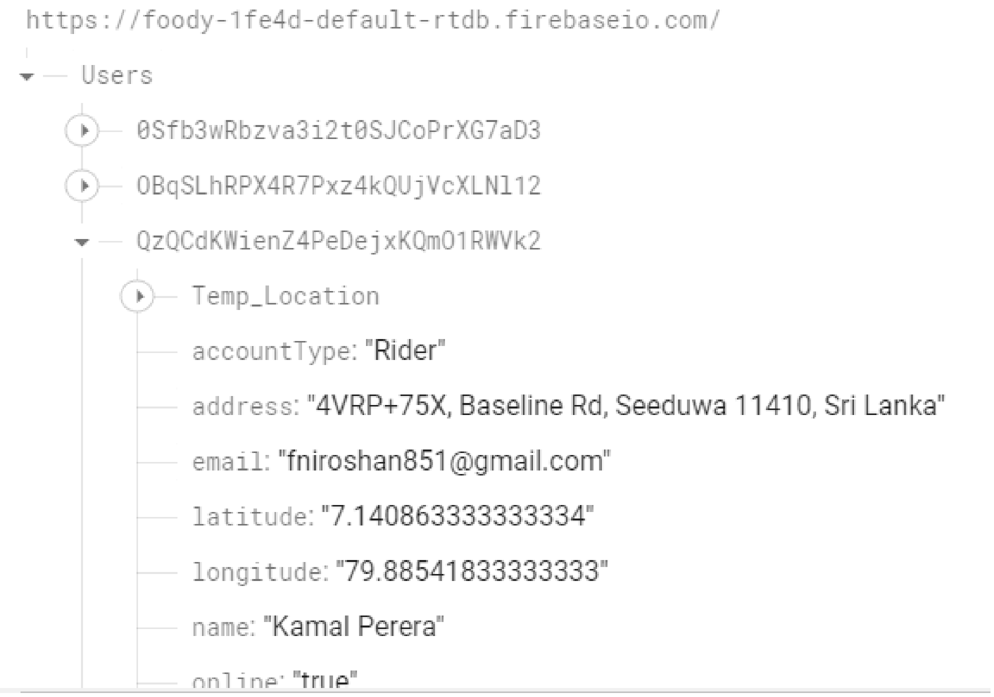
### Direction to Customer

Rider can get direction to customer location by easily clicking map button. It shows distance to customer location.

# 3 Database and GUI Design

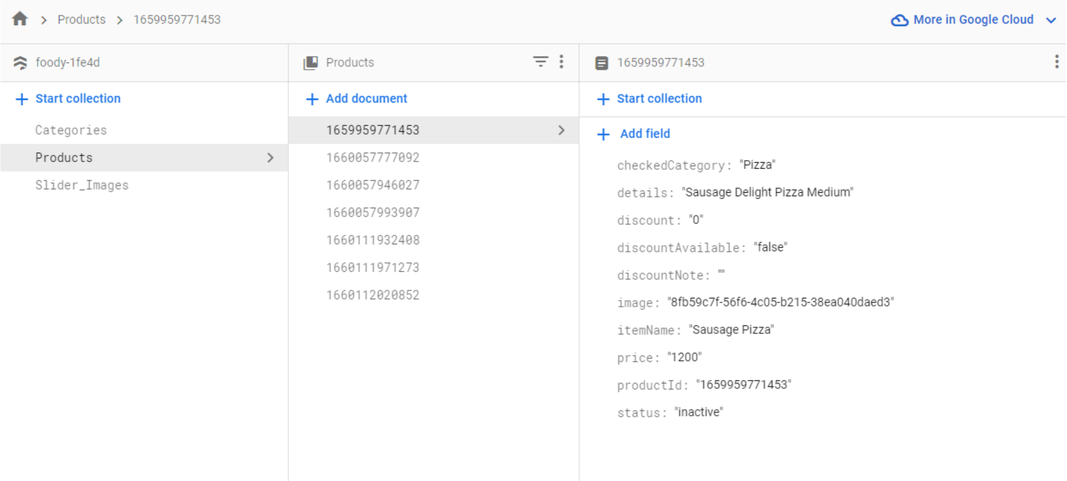
## 3.1 Database Design

As the database, used Firebase Realtime Database and Firestore, to store all data and Firebase Storage is used sore images.



```
https://foody-1fe4d-default-rtdb.firebaseio.com/
  Users
    0Sfb3wRbzva3i2t0SJCoPrXG7aD3
    OBqSLhRPX4R7Pxz4kQUjVcXLNl12
    QzQCdKWienZ4PeDejxKQmO1RWVk2
      Temp_Location
      accountType: "Rider"
      address: "4VRP+75X, Baseline Rd, Seeduwa 11410, Sri Lanka"
      email: "fniroshan851@gmail.com"
      latitude: "7.140863333333334"
      longitude: "79.88541833333333"
      name: "Kamal Perera"
      online: "true"
```

*Figure 4:Firebase Realtime Database*



```
Categories
Products
Slider_Images
```

```
1659959771453
1660057777092
1660057946027
1660057993907
1660111932408
1660111971273
1660112020852
```

```
checkedCategory: "Pizza"
details: "Sausage Delight Pizza Medium"
discount: "0"
discountAvailable: "false"
discountNote: ""
image: "8fb59c7f-56f6-4c05-b215-38ea040daed3"
itemName: "Sausage Pizza"
price: "1200"
productId: "1659959771453"
status: "inactive"
```

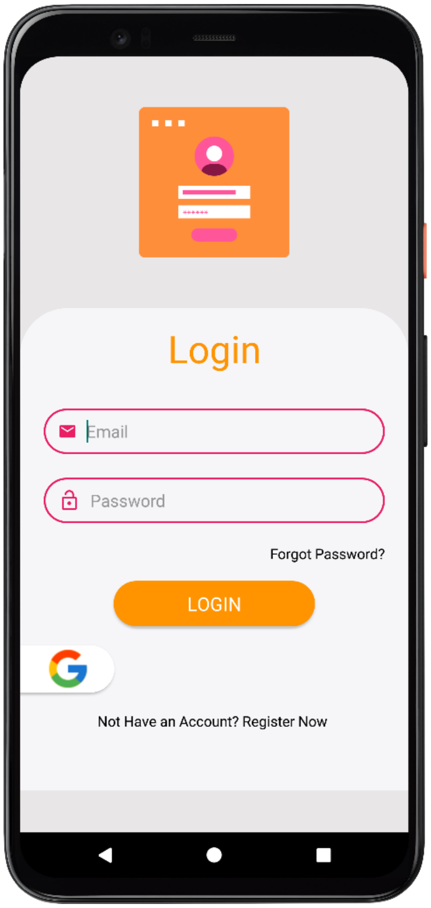
*Figure 5:Firebase Firestore*

## 3.2 GUI Designing

The user interface designs are main task in the projects. This helps to user friendly mobile app working.

### 3.2.1 Foody Seller Mobile Application

- ❖ Seller Log In Page



Login

Email

Password

Forgot Password?

LOGIN

Not Have an Account? Register Now

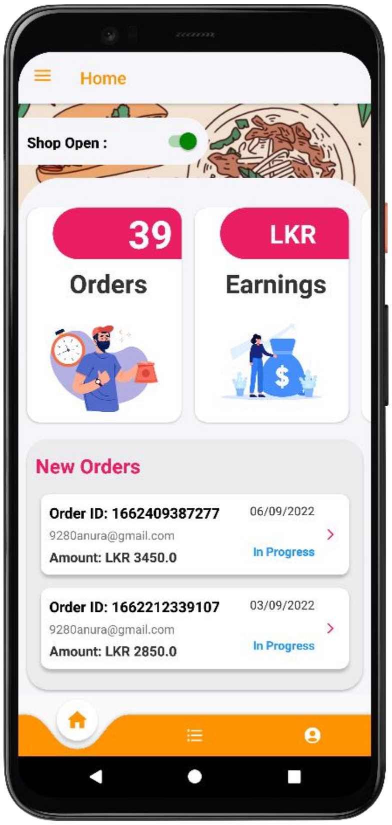
*Figure 6: Seller Login In page*

The Seller needs to fill email, password already given. Seller have only one account. There is a validation function will check whether the email and password provided by the Seller are valid or invalid, if the email and password are valid, the Seller will log in successfully and enter the home page, and otherwise a warning message will show.

If Seller forgot the password, Seller can recover from click the "forgot password?" text and it enter new window and enter already enter email and gets reset password email to inbox.

## ❖ Home Page

After successfully log in to account, Seller display home page. There are Orders, Earnings, Riders, Review easy navigate views in horizontal scroll view. Seller can view new orders from home page easily. And if there is a new order from customer, notification came.



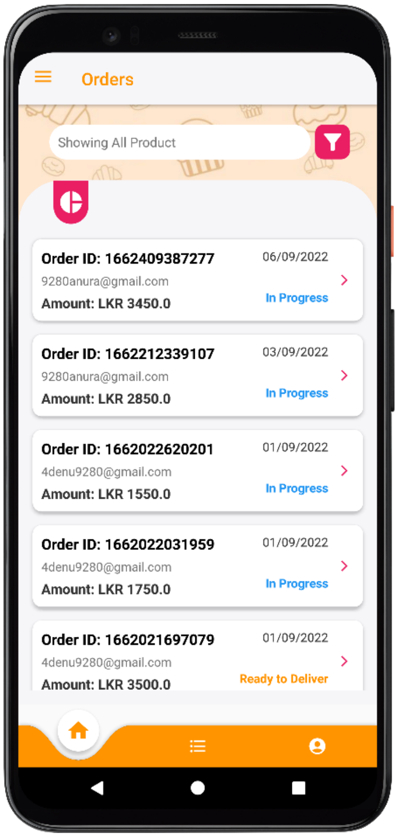
Order ID: 1662409387277 06/09/2022
9280anura@gmail.com
Amount: LKR 3450.0 In Progress

Order ID: 1662212339107 03/09/2022
9280anura@gmail.com
Amount: LKR 2850.0 In Progress

*Figure 7:Seller Home page*

## ❖ Orders Page

In this view Seller can display all orders from customers with order details. In this view Seller can filter orders by order status from filter icon clicking.



Order ID: 1662409387277 06/09/2022
9280anura@gmail.com
Amount: LKR 3450.0 In Progress

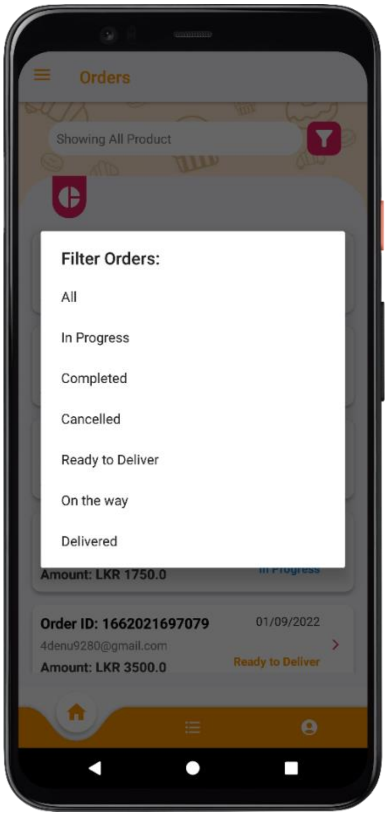
Order ID: 1662212339107 03/09/2022
9280anura@gmail.com
Amount: LKR 2850.0 In Progress

Order ID: 1662022620201 01/09/2022
4denu9280@gmail.com
Amount: LKR 1550.0 In Progress

Order ID: 1662022031959 01/09/2022
4denu9280@gmail.com
Amount: LKR 1750.0 In Progress

Order ID: 1662021697079 01/09/2022
4denu9280@gmail.com
Amount: LKR 3500.0 Ready to Deliver

*Figure 8:Seller Home page*



Orders

Showing All Product

Filter Orders:

All

In Progress

Completed

Cancelled

Ready to Deliver

On the way

Delivered

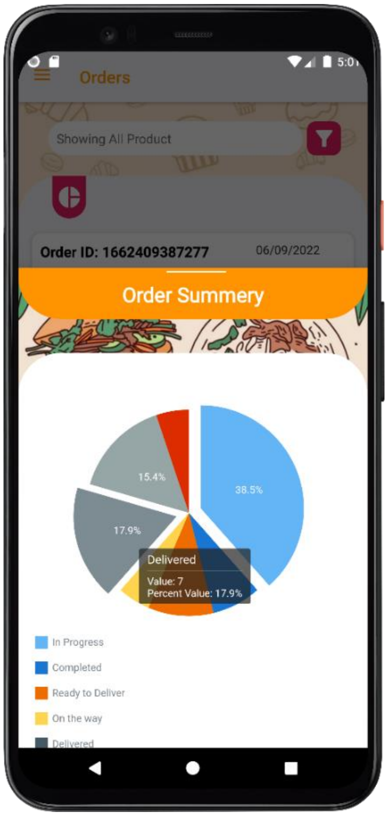
Amount: LKR 1750.0 In Progress

Order ID: 1662021697079 01/09/2022

4denu9280@gmail.com

Amount: LKR 3500.0 Ready to Deliver

*Figure 10:Orders page Filter Status*



Orders

Showing All Product

Order ID: 1662409387277 06/09/2022

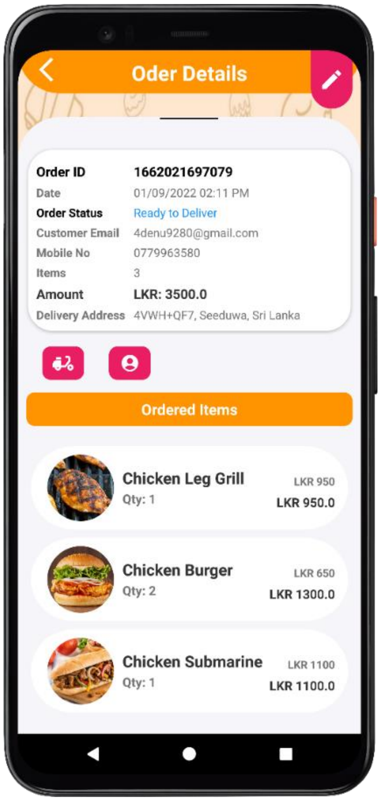
Order Summery

*Figure 9:Orders page Order Summery*

There are seven order status to filter (Figure 9). In each selection, Order area display filter selection option related orders only. It is very useful to search orders. Seller can display all orders summery as a pie chart using clicking pie chart icon (Figure 8). It shows all these order status related orders count.

## ❖ Order Details Page

In Orders page, when click on the one order enter new page called Order details. In this view Seller can display customer details and ordered food items with count and price.



Oder Details

Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Ready to Deliver
Customer Email 4denu9280@gmail.com
Mobile No 0779963580
Items 3
Amount LKR: 3500.0
Delivery Address 4VWH+QF7, Seeduwa, Sri Lanka

Ordered Items

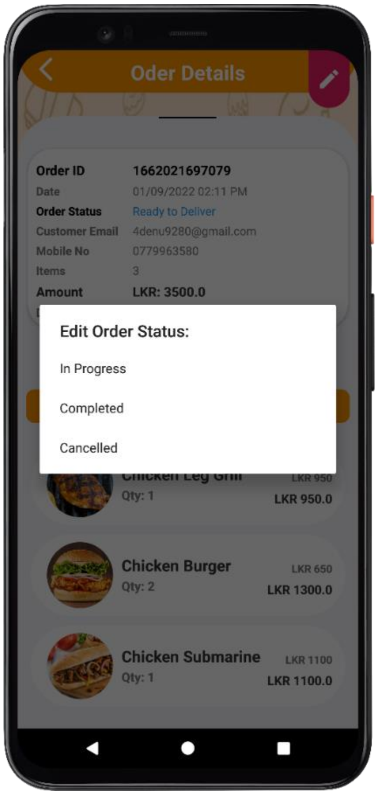
Chicken Leg Grill LKR 950
Qty: 1 LKR 950.0

Chicken Burger LKR 650
Qty: 2 LKR 1300.0

Chicken Submarine LKR 1100
Qty: 1 LKR 1100.0

*Figure 12:Seller Order Details*

After Order Complete, Seller can change the order status by clicking pen icon (Figure 11). There are three order status to change.



Oder Details

Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Ready to Deliver
Customer Email 4denu9280@gmail.com
Mobile No 0779963580
Items 3
Amount LKR: 3500.0

Edit Order Status:
In Progress
Completed
Cancelled

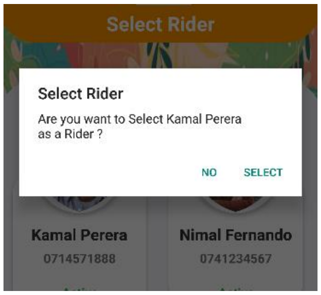
Qty: 1 LKR 950.0

Chicken Burger LKR 650
Qty: 2 LKR 1300.0

Chicken Submarine LKR 1100
Qty: 1 LKR 1100.0

*Figure 11:Seller Order Status Change*

After Order Complete, change the order status to “Completed”, Seller can assign a rider in that time available. There is a popup message, when click on a rider. When click “Select”, that selected rider assign in to relevant order.



Select Rider

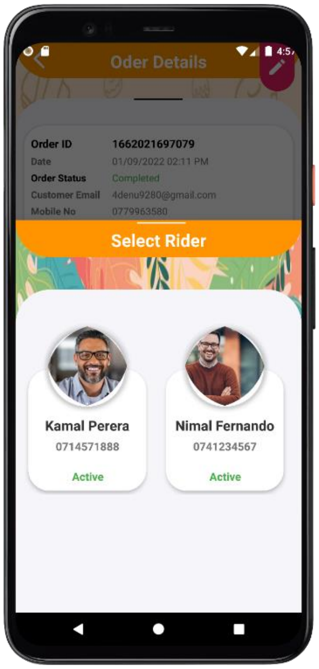
Select Rider

Are you want to Select Kamal Perera as a Rider ?

NO SELECT

Kamal Perera 0714571888

Nimal Fernando 0741234567



Oder Details

Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Completed
Customer Email 4denu9280@gmail.com
Mobile No 0779963580

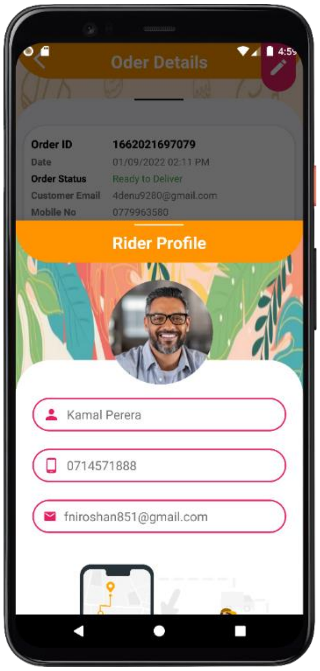
Select Rider

Kamal Perera 0714571888 Active

Nimal Fernando 0741234567 Active

*Figure 13:Seller Select Rider*

After Selecting a rider, Seller can view rider details using click bicycle icon (Figure 11). That window shows rider’s name, mobile number, and email.



Oder Details

Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Ready to Deliver
Customer Email 4denu9280@gmail.com
Mobile No 0779963580

Rider Profile

Kamal Perera

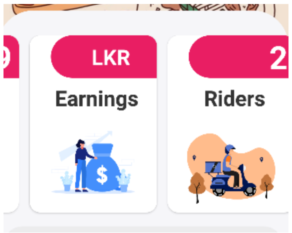
0714571888

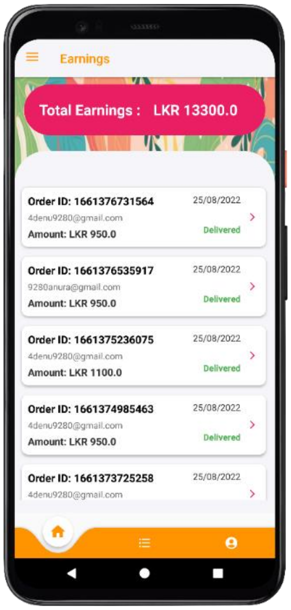
fniroshan851@gmail.com

*Figure 14:Seller Selected Rider Details*

### ❖ Seller Earnings Page

In this view shows all delivered order list and Earnings from them. Orders shows order details and related dates.




Earnings

Total Earnings : LKR 13300.0

Order ID: 1661376731564 25/08/2022
4denu9280@gmail.com
Amount: LKR 950.0 Delivered

Order ID: 1661376535917 25/08/2022
9280anura@gmail.com
Amount: LKR 950.0 Delivered

Order ID: 1661375236075 25/08/2022
4denu9280@gmail.com
Amount: LKR 1100.0 Delivered

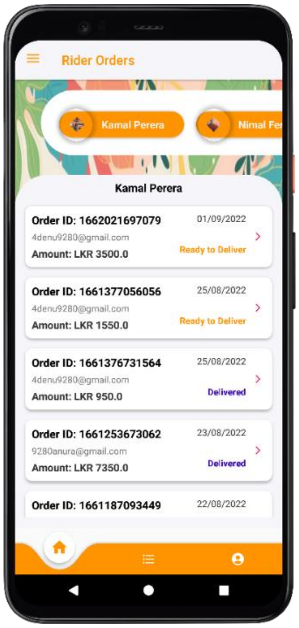
Order ID: 1661374985463 25/08/2022
4denu9280@gmail.com
Amount: LKR 950.0 Delivered

Order ID: 1661373725258 25/08/2022
4denu9280@gmail.com

*Figure 15:Seller Earnings Page*

### ❖ Seller Rider Orders Page

In this view shows all Approved Riders in horizontal scroll view. When select a rider from it, shows all orders relevant to a rider. It is very helps to filter orders from riders.


Rider Orders

Kamal Perera Nimal Fe

Kamal Perera

Order ID: 1662021697079 01/09/2022
4denu9280@gmail.com
Amount: LKR 3500.0 Ready to Deliver

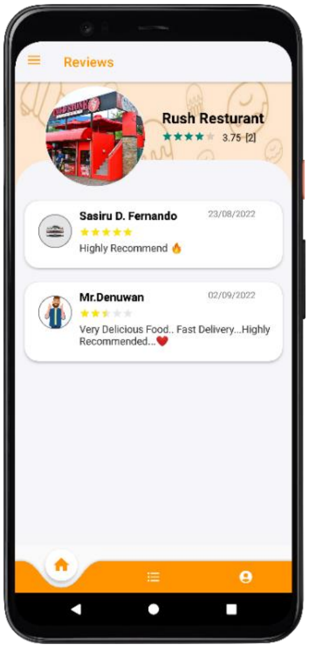
Order ID: 1661377056056 25/08/2022
4denu9280@gmail.com
Amount: LKR 1550.0 Ready to Deliver

Order ID: 1661376731564 25/08/2022
4denu9280@gmail.com
Amount: LKR 950.0 Delivered

Order ID: 1661253673062 23/08/2022
9280anura@gmail.com
Amount: LKR 7350.0 Delivered

Order ID: 1661187093449 22/08/2022

*Figure 16:Seller Riders Page*



Reviews

Rush Resturant
★★★★☆ 3.75 [2]

Sasiru D. Fernando 23/08/2022
★★★★★
Highly Recommend 🔥

Mr.Denuwan 02/09/2022
★★½☆☆
Very Delicious Food.. Fast Delivery...Highly Recommended...❤

### ❖ Seller Reviews Page

In this view shows all customers reviews and ratings with customer details.

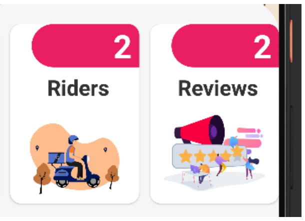
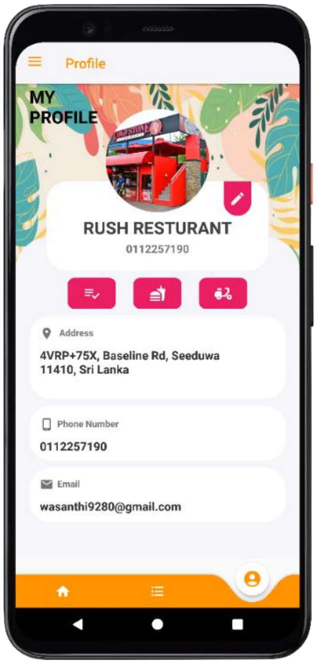


*Figure 17:Seller Reviews Page*

### ❖ Seller Profile Page

In this view shows Restaurant details- Restaurant Name, phone number, address, and email. These details display in customer application too. So, Seller can change these details by clicking pen icon.



Profile

MY PROFILE

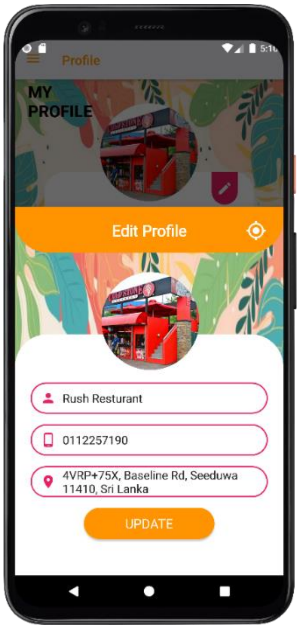
RUSH RESTURANT
0112257190

Address
4VRP+75X, Baseline Rd, Seeduwa 11410, Sri Lanka

Phone Number
0112257190

Email
wasanthi9280@gmail.com

*Figure 18:Seller Profile Page*



Rush Resturant

0112257190

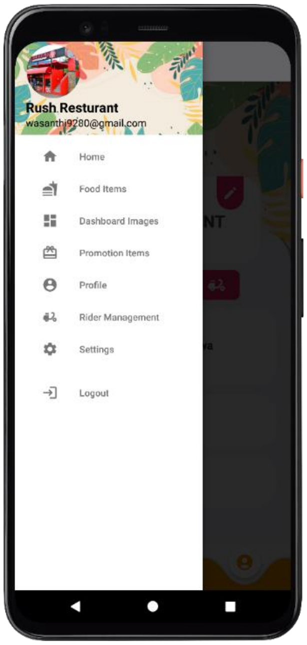
4VRP+75X, Baseline Rd, Seeduwa 11410, Sri Lanka

*Figure 19:Seller Profile Page Edit*

After popup window Seller can edit details. Location can get from gps icon clicking. After click update button, details update in database.

- Seller Side drawer

There are some navigate view items in this side drawer. Easily click and enter related view. There is a log out button to log out from application.



Rush Resturant
wasanthi9280@gmail.com

*Figure 20:Seller Side Drawer*

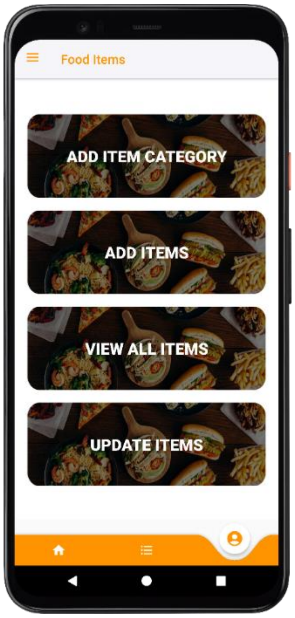


*Figure 21:Seller Food Items*

### ❖ Seller Food Items

In this view Seller can manage food. It have Add item category, add item, view item and update items.

### ❖ Seller Add Category

In this view Seller can Add new Category using this window. First select image to click on the plus button and it enter device gallery to pick a photo. After filling details, press Save button to save data in Database. Below the save button, there is a horizontal scroll view with added

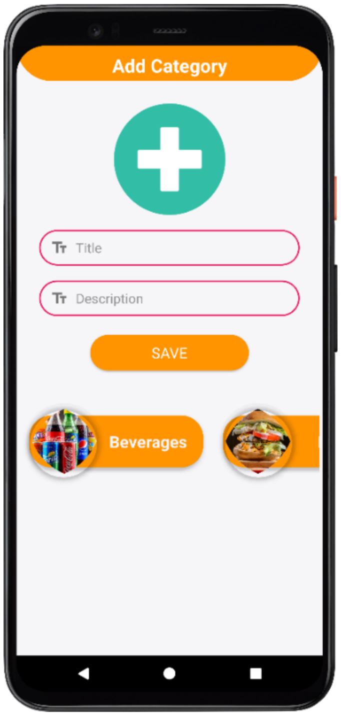


*Figure 22: Seller Add Category*

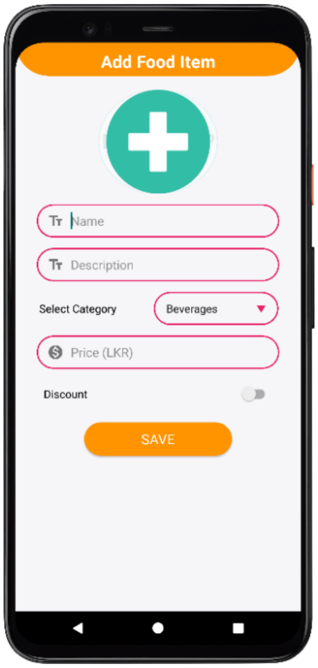


*Figure 23:Seller Add Food*

- ❖ Seller Add Food

In this view Seller can Add new Food using entered categories selecting. If there is discount Seller can switch on discount and fill boxes.

- ❖ Seller View Food

In this view Seller can view available food items by clicking each food category

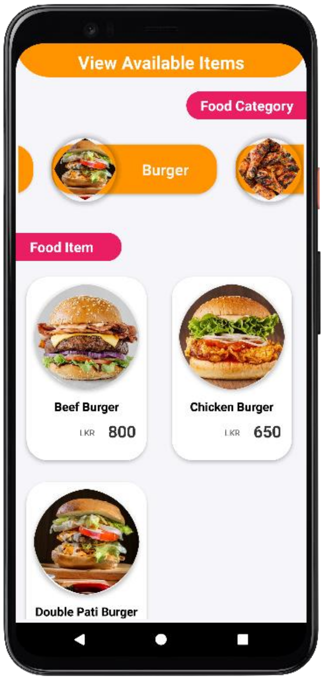


*Figure 24:Seller View Available item*

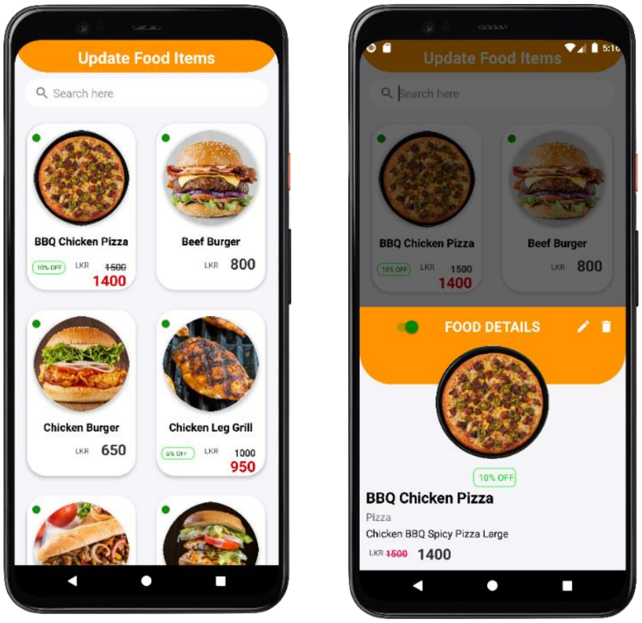
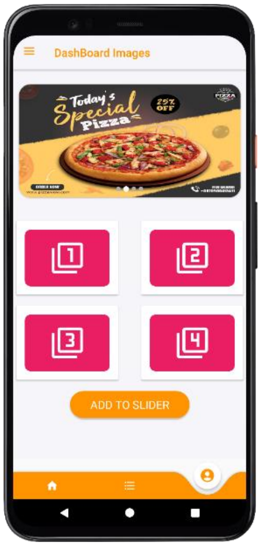


*Figure 25:Seller Update Food items*

❖ Seller Update Food Items

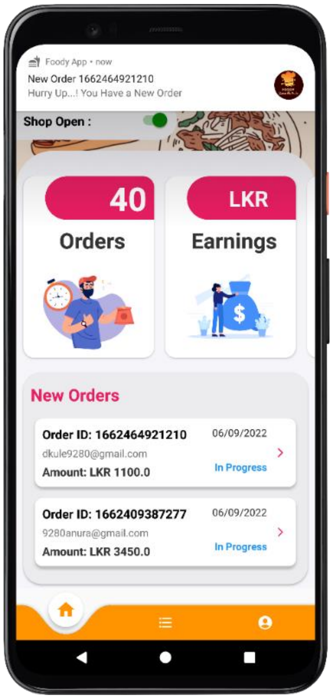
In this view Seller can view all food items and can filter food items by entering food name. In this view, when select a food item there is a popup window to update food details. It can change available or not, delete item and edit item.



❖ Seller Dashboard Images Change

In this view Seller can view previous entered dashboard images. Also, Seller can add new images using this view. Image sider can add only four images only.

*Figure 26:Seller Dashboard Banner*



Foody App • now

New Order 1662464921210

Hurry Up...! You Have a New Order

Shop Open :

40 Orders

LKR Earnings

New Orders

Order ID: 1662464921210 06/09/2022

dkule9280@gmail.com

Amount: LKR 1100.0 In Progress

Order ID: 1662409387277 06/09/2022

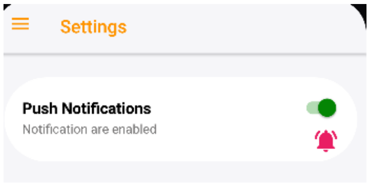
9280anura@gmail.com

Amount: LKR 3450.0 In Progress

*Figure 27:Seller Notification*

❖ Seller Notification

In this Application used notification to Firebase Cloud Message (FCM). When Customer placed a new order, in that time comes a new notification to Seller. Order message, order id included in that notification. When click the notification, Seller directly move to order details page related notification.



Settings

Push Notifications

Notification are enabled

### 3.2.2 Foody Customer Mobile Application

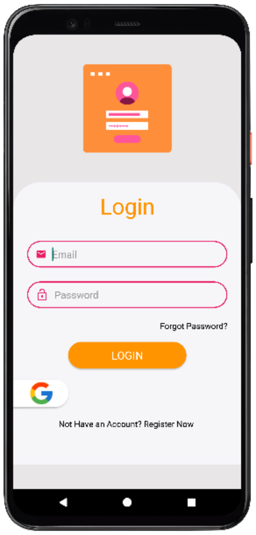


*Figure 28:Customer Login page*

- Customer Login Page

Customer must have an account to log in to application. If customer have already account, enter email and password, after validating customer can log in. Also, customer have a google account, they can use it to login.

- Customer Register Page

If customer have not account, must create a new account. In this view customer create a account, filling this. After create it customer directly enter customer home page.

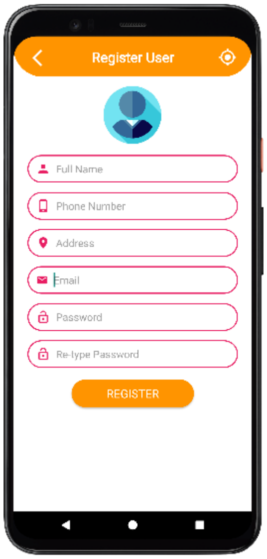


*Figure 29:Customer Login page*

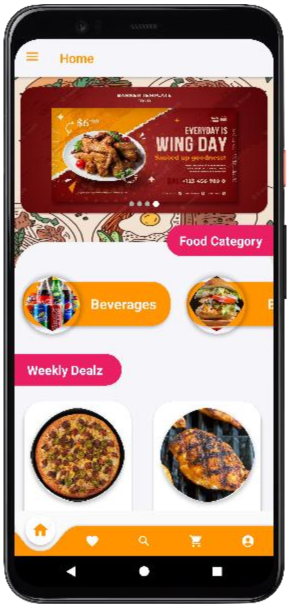


*Figure 32:Customer Home page*

## ❖ Customer Home Page

In this view Customer display image slider, horizontal category scroll view and Discount Items. This view shows when seller set status to Shop Open. When the Shop Close, customer view another window (Figure 30).

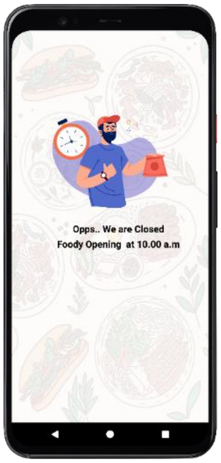

Opps.. We are Closed
Foody Opening at 10.00 a.m

*Figure 30:Customer Shop Close*

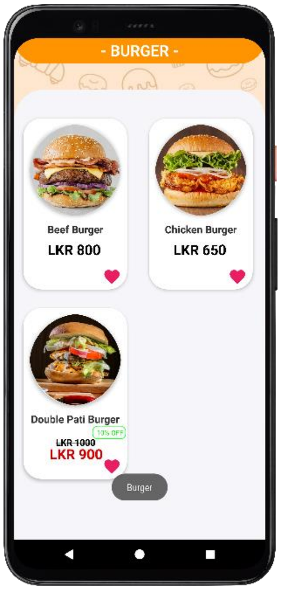


*Figure 31:Customer Food*

## ❖ Customer Select Categories

In home view when customer select a category customer move to this window. This window shows customer selected category related Foods only.

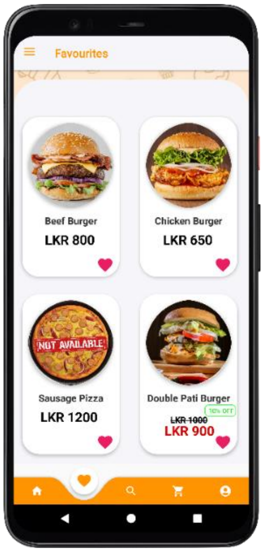


*Figure 35:Customer Favorites*

- ❖ Customer Add to Favorite

In this view shows customer favorite list. Customer can easily add to favorite by clicking heart icon and easily remove from list.

- ❖ Customer Search View

In this view Customer shows all Food items and can filter foods by searching food name. Customer can easily add to favorite.

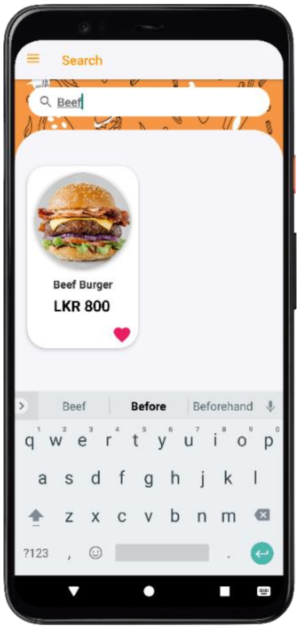


*Figure 34:Customer Search Food*

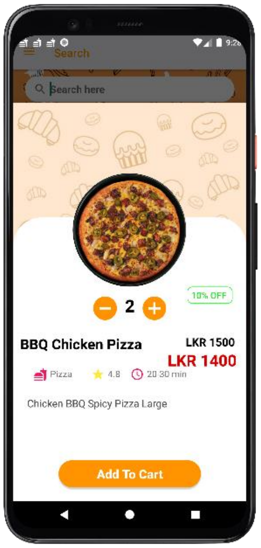


*Figure 33:Customer add to cart Food*

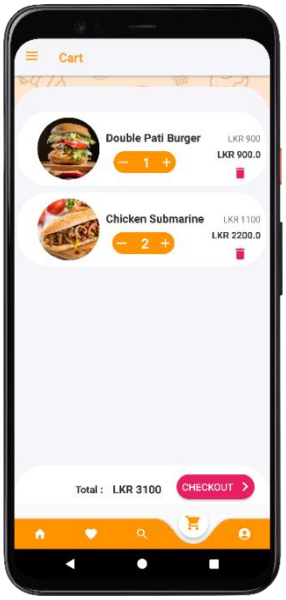


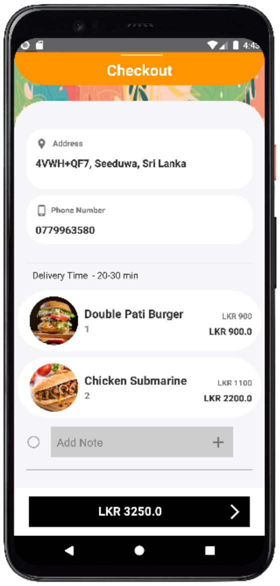
*Figure 36:Customer Cart*

- Customer Cart View

In this view Customer shows cart items. Customer can delete, increase/ decrease food items using these buttons. In bottom shows total price without adding delivery charge. Customer can checkout foods by clicking checkout button.

- Customer Checkout View

In this view Customer shows delivery address, phone number and ordered items with price and total price adding with delivery charges.


Address
4VWH+QF7, Seeduwa, Sri Lanka

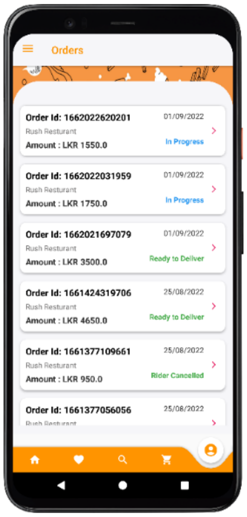
Phone Number
0779963580

Delivery Time - 20-30 min

*Figure 37:Customer Checkout*

## ❖ Customer Orders View

In this view Customer shows all the orders with their status and details.



Orders

Order Id: 1662022620201 01/09/2022
Rush Resturant
Amount : LKR 1550.0 In Progress

Order Id: 1662022031959 01/09/2022
Rush Resturant
Amount : LKR 1750.0 In Progress

Order Id: 1662021697079 01/09/2022
Rush Resturant
Amount : LKR 3500.0 Ready to Deliver

Order Id: 1661424319706 25/08/2022
Rush Resturant
Amount : LKR 4650.0 Ready to Deliver

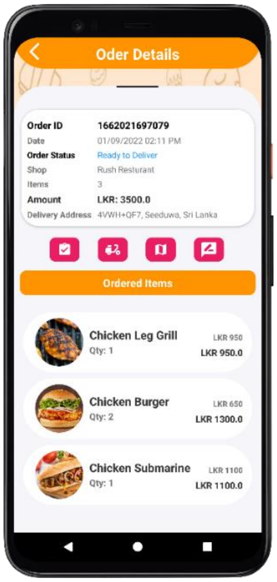
Order Id: 1661377109661 25/08/2022
Rush Resturant
Amount : LKR 950.0 Rider Cancelled

Order Id: 1661377056056 25/08/2022
Rush Resturant

*Figure 38:Customer Orders*

## ❖ Customer Order Details View

When click on a order, customer directly enter new window. It shows Order details and ordered food.



Oder Details

Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Ready to Deliver
Shop Rush Resturant
Items 3
Amount LKR: 3500.0
Delivery Address 4VWH+QF7, Seeduwa, Sri Lanka

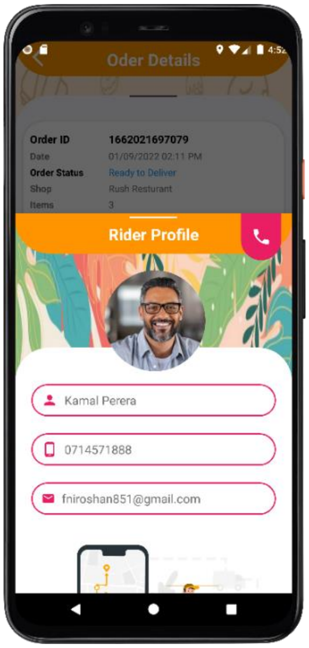
Ordered Items

Chicken Leg Grill LKR 950
Qty: 1 LKR 950.0

Chicken Burger LKR 650
Qty: 2 LKR 1300.0

Chicken Submarine LKR 1100
Qty: 1 LKR 1100.0

*Figure 39:Customer Order Details*



Oder Details

Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Ready to Deliver
Shop Rush Resturant
Items 3

Rider Profile

Kamal Perera

0714571888

fniroshan851@gmail.com

*Figure 40:Customer Order Rider*

When click on a bicycle icon, customer can view delivery rider info. In this view customer can a make a call to rider by clicking call button.

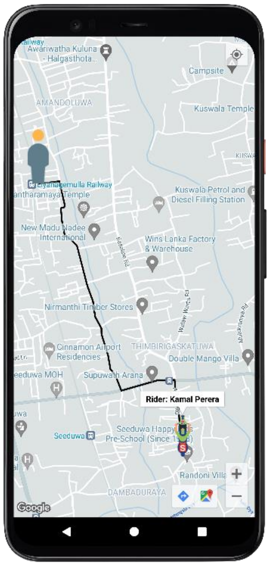


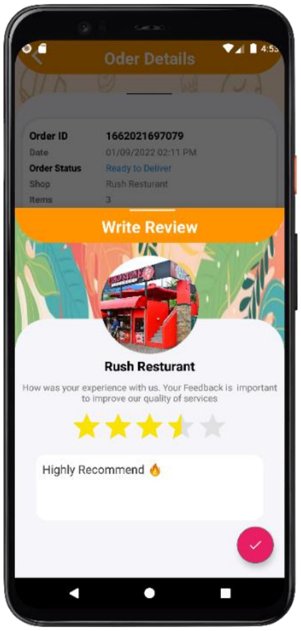
*Figure 41:Customer Order Tracking*

### ❖ Customer Order Tracking View

When click on the map icon, customer can view this. It is only work when the rider set "On the way" as the order status.

### ❖ Customer write review

When click on the review button, customer can write a review and rating about restaurant.



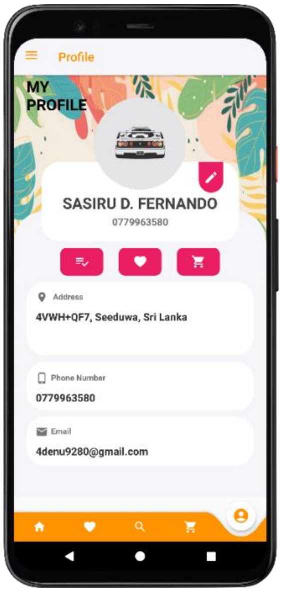
Order ID 1662021697079
Date 01/09/2022 02:11 PM
Order Status Ready to Deliver
Shop Rush Resturant
Items 3

Rush Resturant

How was your experience with us. Your Feedback is important to improve our quality of services

Highly Recommend 🔥

*Figure 42:Customer write Review*



SASIRU D. FERNANDO
0779963580

Address
4VWH+QF7, Seeduwa, Sri Lanka

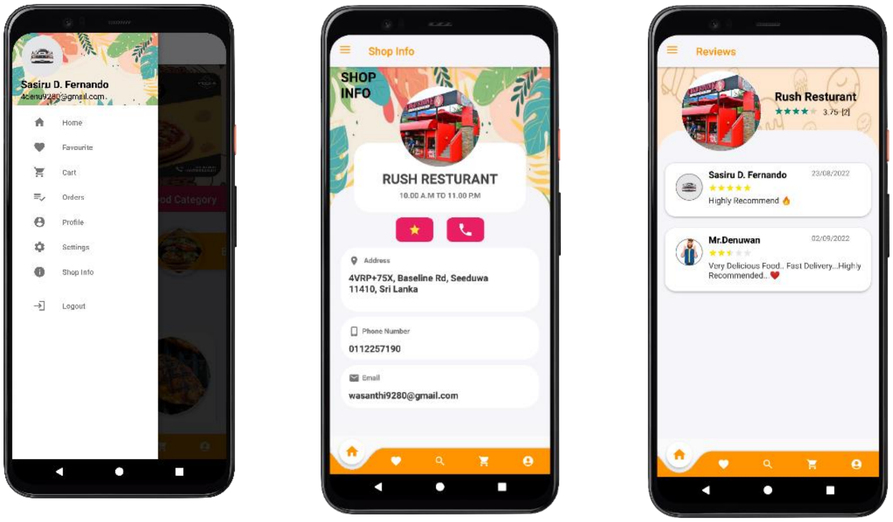
Phone Number
0779963580

Email
4denu9280@gmail.com

*Figure 43:Customer Profile*

### ❖ Customer Profile

In this view customer shows profile info. Also customer can change details.



Sasiru D. Fernando
4cenu9280@gmail.com

RUSH RESTURANT
10.00 A.M TO 11.00 P.M

4VRP+75X, Baseline Rd, Seeduwa 11410, Sri Lanka

0112257190

wasanthi9280@gmail.com

Rush Resturant
★★★★ 3.75 [2]

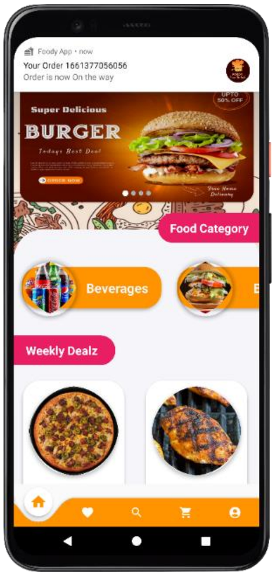
Sasiru D. Fernando 23/08/2022
★★★★★
Highly Recommend

Mr.Denuwan 02/09/2022
★★★
Very Delicious Food.. Fast Delivery...Highly Recommended..

*Figure 44:Customer Shop info*

### ❖ Customer Shop Info

In this view customer shows restaurant info. Customer can make a call to restaurant by a clicking call button. Also, customer can read all other customers reviews and ratings.



Foody App • now
Your Order 1661377056056
Order is now On the way

*Figure 45:Customer Notification*

### ❖ Customer Notification

In this view customer shows notification when order placed and rider or seller change the order status.

### 3.2.3 Foody Rider Mobile Application

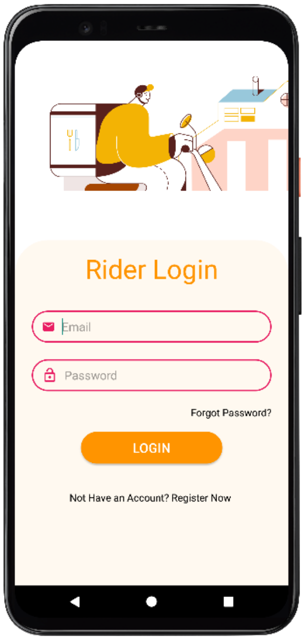


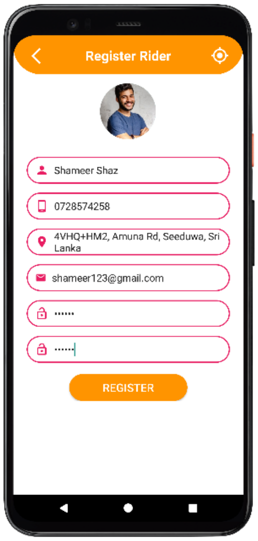
Figure 46:Rider Login page

- ❖ Rider Login Page

Rider must have an account to log in to application. If rider had already account, fill the email and password and after validating rider can directly enter home page.

- ❖ Rider Register

If Rider hasn't already account, rider must create a new account. In this view rider can successfully register to application. But rider cannot log in to application, getting seller approved. (Figure 46).



Shameer Shaz

0728574258

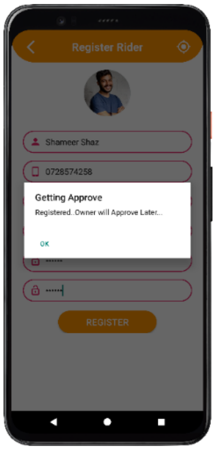
4VHQ+HM2, Amuna Rd, Seeduwa, Sri Lanka

shameer123@gmail.com

••••••

••••••

Figure 47:Rider Register



Shameer Shaz

0728574258

Getting Approve

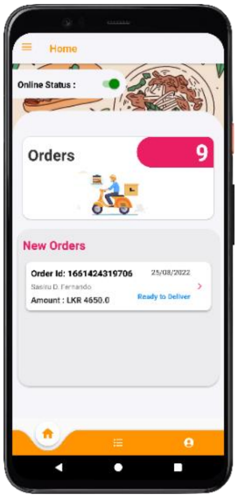
Registered..Owner will Approve Later...

OK

••••••

••••••

Figure 48:Rider gets Approve

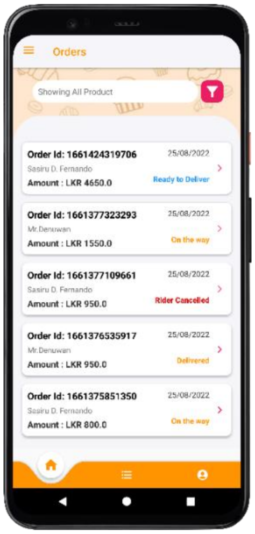


Order Id: 1661424319706 25/08/2022
Sasiru D. Fernando
Amount : LKR 4650.0 Ready to Deliver

*Figure 49:Rider Home Page*

❖ Rider Home Page

In this view rider shows all orders Count. And bottom shows new orders. Rider can easily active and inactive using this switch.



Showing All Product

Order Id: 1661424319706 25/08/2022
Sasiru D. Fernando
Amount : LKR 4650.0 Ready to Deliver

Order Id: 1661377323293 25/08/2022
Mr.Denuwan
Amount : LKR 1550.0 On the way

Order Id: 1661377109661 25/08/2022
Sasiru D. Fernando
Amount : LKR 950.0 Rider Cancelled

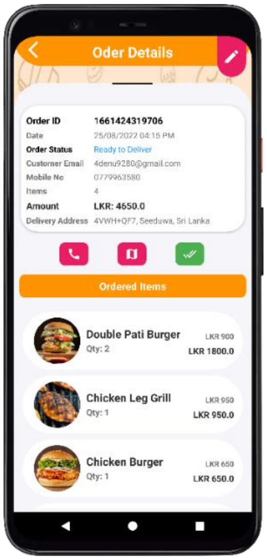
Order Id: 1661376535917 25/08/2022
Mr.Denuwan
Amount : LKR 950.0 Delivered

Order Id: 1661375851350 25/08/2022
Sasiru D. Fernando
Amount : LKR 800.0 On the way

*Figure 50:Rider Orders Page*

❖ Rider Orders Page

In this view rider shows all orders. Rider can filter orders by it's order status by choosing.



| | |
|---|---|
| Order ID | 1661424319706 |
| Date | 25/08/2022 04:15 PM |
| Order Status | Ready to Deliver |
| Customer Email | 4denu9280@gmail.com |
| Mobile No | 0779963580 |
| Items | 4 |
| Amount | LKR: 4650.0 |
| Delivery Address | 4VWH+QF7, Seeduwa, Sri Lanka |

Double Pati Burger LKR 900
Qty: 2 LKR 1800.0

Chicken Leg Grill LKR 950
Qty: 1 LKR 950.0

Chicken Burger LKR 650
Qty: 1 LKR 650.0

*Figure 51:Rider Order Details Page*

❖ Rider Order Details Page

When rider clicks on the order, rider can view this window. In this window shows order details and ordered food details.

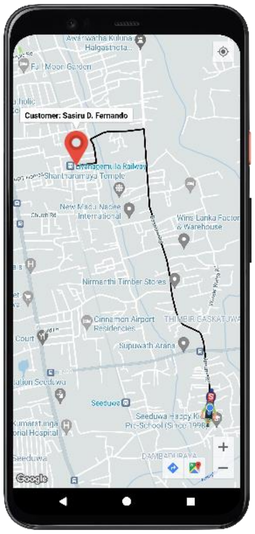


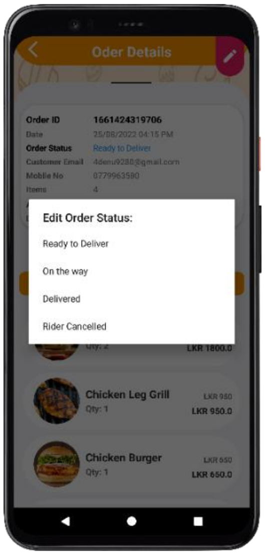
*Figure 52:Rider Order Tracking*

- ❖ Rider Order Tracking

When rider clicks on the map icon, rider can get direction to customer.

- ❖ Rider Order Status

Rider can change the order status using this button.

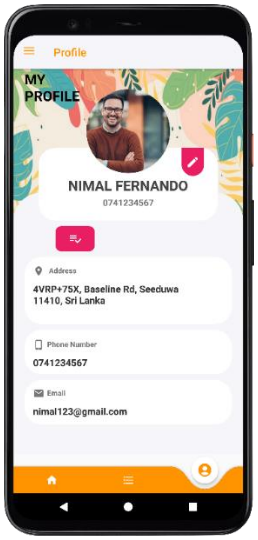


Order ID 1661424319706
Date 25/08/2022 04:15 PM
Order Status Ready to Deliver
Customer Email 4denu9280@gmail.com
Mobile No 0779963590
Items 4

Edit Order Status:
Ready to Deliver
On the way
Delivered
Rider Cancelled

Qty: 2 LKR 1800.0
Chicken Leg Grill Qty: 1 LKR 950 LKR 950.0
Chicken Burger Qty: 1 LKR 650 LKR 650.0

*Figure 53:Rider Order Status*



Profile

MY PROFILE

NIMAL FERNANDO
0741234567

Address
4VRP+75X, Baseline Rd, Seeduwa 11410, Sri Lanka

Phone Number
0741234567

Email
nimal123@gmail.com

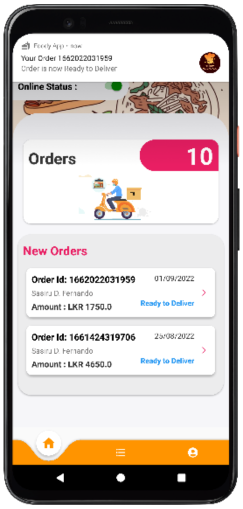
*Figure 54:Rider Profile*

❖ Rider Order Profile

In this view rider shows profile and can change rider details using button.

❖ Rider Notification

When seller assigned new order to rider, rider comes notification about it.



Foody App • now
Your Order 1662022031959
Order is now Ready to Deliver

Online Status :

Orders 10

New Orders

Order Id: 1662022031959 01/09/2022
Sasiru D. Fernando
Amount : LKR 1750.0 Ready to Deliver

Order Id: 1661424319706 25/08/2022
Sasiru D. Fernando
Amount : LKR 4650.0 Ready to Deliver

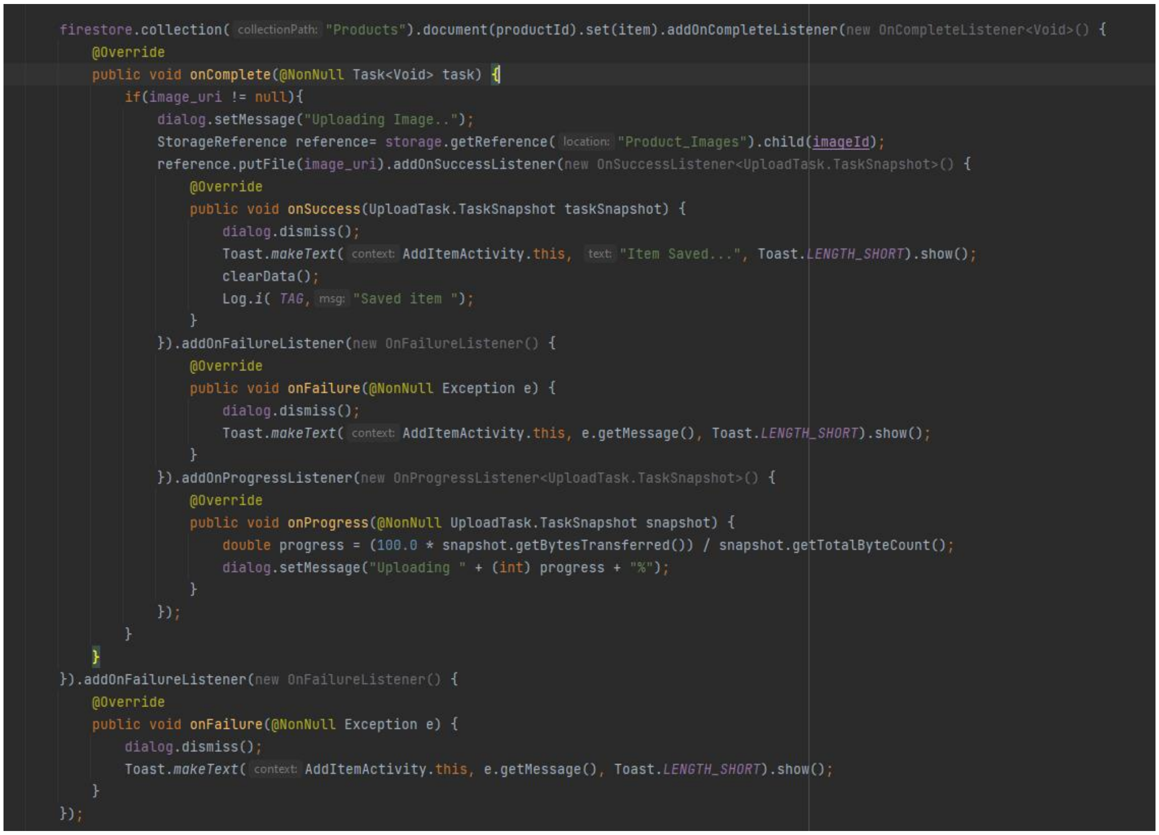
*Figure 55:Rider Notification*

# 4 Implementation

The implementation of functions is described in this chapter.

## 4.1 Adding Food Seller Application

In the seller Application Adding food Function code here that. The brief implementation code of this method is shown below



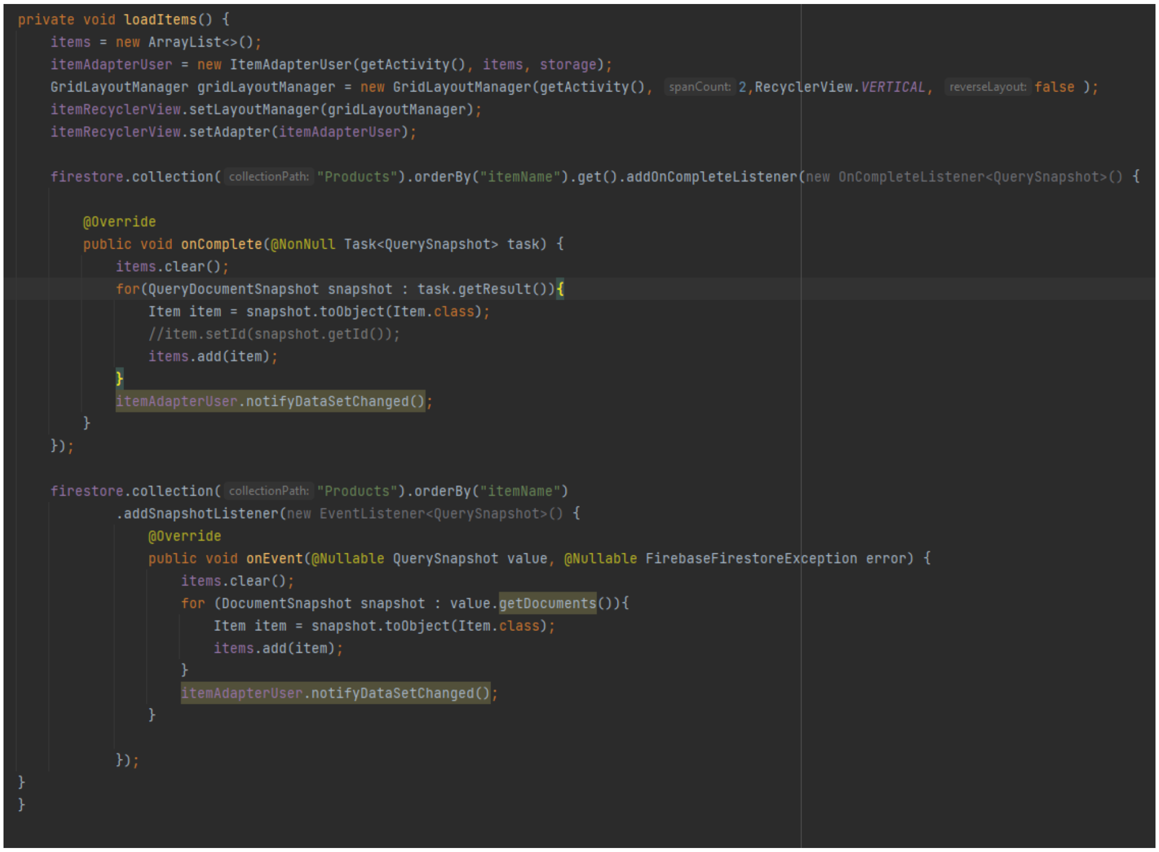
```java
firestore.collection( collectionPath: "Products").document(productId).set(item).addOnCompleteListener(new OnCompleteListener<Void>() {
    @Override
    public void onComplete(@NonNull Task<Void> task) {
        if(image_uri != null){
            dialog.setMessage("Uploading Image..");
            StorageReference reference= storage.getReference( location: "Product_Images").child(imageId);
            reference.putFile(image_uri).addOnSuccessListener(new OnSuccessListener<UploadTask.TaskSnapshot>() {
                @Override
                public void onSuccess(UploadTask.TaskSnapshot taskSnapshot) {
                    dialog.dismiss();
                    Toast.makeText( context: AddItemActivity.this,  text: "Item Saved...", Toast.LENGTH_SHORT).show();
                    clearData();
                    Log.i( TAG, msg: "Saved item ");
                }
            }).addOnFailureListener(new OnFailureListener() {
                @Override
                public void onFailure(@NonNull Exception e) {
                    dialog.dismiss();
                    Toast.makeText( context: AddItemActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
                }
            }).addOnProgressListener(new OnProgressListener<UploadTask.TaskSnapshot>() {
                @Override
                public void onProgress(@NonNull UploadTask.TaskSnapshot snapshot) {
                    double progress = (100.0 * snapshot.getBytesTransferred()) / snapshot.getTotalByteCount();
                    dialog.setMessage("Uploading " + (int) progress + "%");
                }
            });
        }
    }
}).addOnFailureListener(new OnFailureListener() {
    @Override
    public void onFailure(@NonNull Exception e) {
        dialog.dismiss();
        Toast.makeText( context: AddItemActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
    }
});
```

*Figure 56:Adding Food Seller Application*

In this code shows when the seller saves button items save in firestore database and image store in firebase storage.

## 4.2 Display Food Customer Application

In this code shows customer shows all foods in application



```java
private void loadItems() {
    items = new ArrayList<>();
    itemAdapterUser = new ItemAdapterUser(getActivity(), items, storage);
    GridLayoutManager gridLayoutManager = new GridLayoutManager(getActivity(), spanCount: 2,RecyclerView.VERTICAL, reverseLayout: false );
    itemRecyclerView.setLayoutManager(gridLayoutManager);
    itemRecyclerView.setAdapter(itemAdapterUser);

    firestore.collection( collectionPath: "Products").orderBy("itemName").get().addOnCompleteListener(new OnCompleteListener<QuerySnapshot>() {

        @Override
        public void onComplete(@NonNull Task<QuerySnapshot> task) {
            items.clear();
            for(QueryDocumentSnapshot snapshot : task.getResult()){
                Item item = snapshot.toObject(Item.class);
                //item.setId(snapshot.getId());
                items.add(item);
            }
            itemAdapterUser.notifyDataSetChanged();
        }
    });

    firestore.collection( collectionPath: "Products").orderBy("itemName")
            .addSnapshotListener(new EventListener<QuerySnapshot>() {
                @Override
                public void onEvent(@Nullable QuerySnapshot value, @Nullable FirebaseFirestoreException error) {
                    items.clear();
                    for (DocumentSnapshot snapshot : value.getDocuments()){
                        Item item = snapshot.toObject(Item.class);
                        items.add(item);
                    }
                    itemAdapterUser.notifyDataSetChanged();
                }

            });
}
}
```

*Figure 57:Display Food Customer Application*

# 5 Conclusions

This chapter concludes the report of this project. This chapter starts with discussing the achievements of this project. Following that, it describes the constraints within the system. It then proposes and recommends some options to be another to the system. Finality, the chapter ends by closing remarks.