



# ASWENNA APP

Realtime Products Selling App for Famers

## ABSTRACT

This application is basically about managing productions of farmers in Sri Lanka. Basically, it clearly makes direct interconnection among farmers and buyers. It may avoid the wastage because of being unable to find market and reduce the cost for brokers.

## Final Report

ICT 334 2.0 Project  
Department of Computer Science  
Faculty of Applied Sciences  
University of Sri Jaywardenepura

## Presented By

Y.A.O.D. Yapa – AS2017956

## ACKNOWLEDGEMENT

First I would like to express my heartfelt gratitude to my supervisor, Dr.T.M.K.K.Jinasena, Senior Lecturer in Computer Science, Department of Computer Science, Faculty of Applied Sciences, University of Sri Jayewardenepura, for his guidance, expertise, and sincere and encouraging words extended to me during the project's preliminary stages,

as well as providing me with experiences. Prof. Laleen Karunanayake, Dean, Faculty of Applied Sciences, University of Sri Jayewardenepura, for his valuable guidance, and Dr. Prasad Jayaweera, Head of the Department of Computer Science, Faculty of Applied Sciences, University of Sri Jayewardenepura, for his advice and vital contribution to this project, are acknowledged.

I also want to thank Mr. Ravimal Bandara, lecturer at the Faculty of Applied Sciences, University of Sri Jayewardenepura, as well as the overall coordinator for project activities, for his instructions, as well as all of the faculty members at the Faculty of Applied Sciences, University of Sri Jayewardenepura, for their assistance and support. I'd also like to express my heartfelt appreciation to all of the respondents who helped me gather data and made this project a success.

Finally, I owe a debt of gratitude to my friends and the rest of the people who supported me; their names are not listed, but their tireless efforts were instrumental in making this project a success.

## DECLARATION

I, Y.A.O.D.Yapa, bearing Index Number AS2017956 student of the University of Sri Jayewardenepura's Computer Science department, hereby declare that I am solely responsible for the material, performance, and other content contained in this project titled "Aswenna" submitted to the University of Sri Jayewardenepura for the third year Information Communication Technology project. My supervisor should not be held responsible for any copyright or intellectual property rights violations, whether complete or partial.

# Contents

ACKNOWLEDGEMENT .....	1
DECLARATION .....	2
Table of Figure .....	4
Introduction .....	5
Methodology.....	6
Result .....	7
Loading Screen .....	7
Sign in Screen .....	8
Sing Up Screen .....	9
Password Recovery Screen .....	10
Gmail Sing In .....	11
Facebook Sign In .....	12
Collect User Data Screens .....	13
Customers Dashboard Screen.....	16
Farmers Dashboard Screen.....	19
Customer Product Details Screen .....	21
Farmer Product Detail Screen.....	22
Edit Product Option .....	23
Edit Product Screen.....	24
Delete Product Option .....	26
Add Product Screen .....	28
Image Upload Screen .....	30
Some Other Screens and Windows.....	31
Discussion.....	34
Conclusion.....	35
Reference .....	36

## Table of Figure

Figure 1 - Loading Screen .....	7
Figure 2 - Sign in Screen .....	8
Figure 3 - Sign Up Screen .....	9
Figure 4 - Password Reset Screen .....	10
Figure 5 - Gmail Sign in Screen.....	11
Figure 6 - Facebook Sign in Screen .....	12
Figure 7 - Collect User Data Screen 01.....	13
Figure 8 - Collect User Data Screen 02.....	14
Figure 9 - Collect User Data Screen 03.....	15
Figure 10 - Customer Dashboard All .....	16
Figure 11 - Customer Dashboard Vegetables .....	17
Figure 12 - Customer Dashboard Fruits .....	18
Figure 13 - Farmer Dashboard All .....	19
Figure 14 - Farmer Dashboard Vegetables .....	20
Figure 15 - Customer Product Detail Screen.....	21
Figure 16 - Farmer Product Detail Screen.....	22
Figure 17 - Product Edit Option .....	23
Figure 18 - Product Edit Screen 01.....	24
Figure 19 - Product Edit Screen 02.....	25
Figure 20 - Product Delete Option .....	26
Figure 21 - Product Delete Confirmation.....	27
Figure 22 - Add New Product Screen 01 .....	28
Figure 23 - Add New Product Screen 02 .....	29
Figure 24 - Image Upload Screen .....	30
Figure 25 - App Drawer .....	31
Figure 26 - Product Selection Screen Vegetable.....	32
Figure 27 - Product Selection Screen Fruit.....	33

## Introduction

This application is basically about managing productions of farmers in Sri Lanka. Basically, it clearly makes direct interconnection among farmers and buyers. It may avoid the wastage because of being unable to find market and reduce the cost for brokers. By using these App farmers can list their products with their market price before they harvesting. Then in other side buyers can view what they need and contact farmers directly without brokers. I hope to give more advice for farmers to minimize wastage of their products.

## Methodology

- This mobile app was created using Flutter framework with Dart language.
  - Whole front end developed using flutter and backend developed by firebase.
  - Here I used to google authentication for google account sign in and Facebook authentication for Facebook account sign in. and also developed email sign up with firebase.
- Here I placed the link of relevant code and all data of the “Aswenna” App.

<https://github.com/Dewruwan95/FarmersProject-Aswenna>

## Result

### Loading Screen

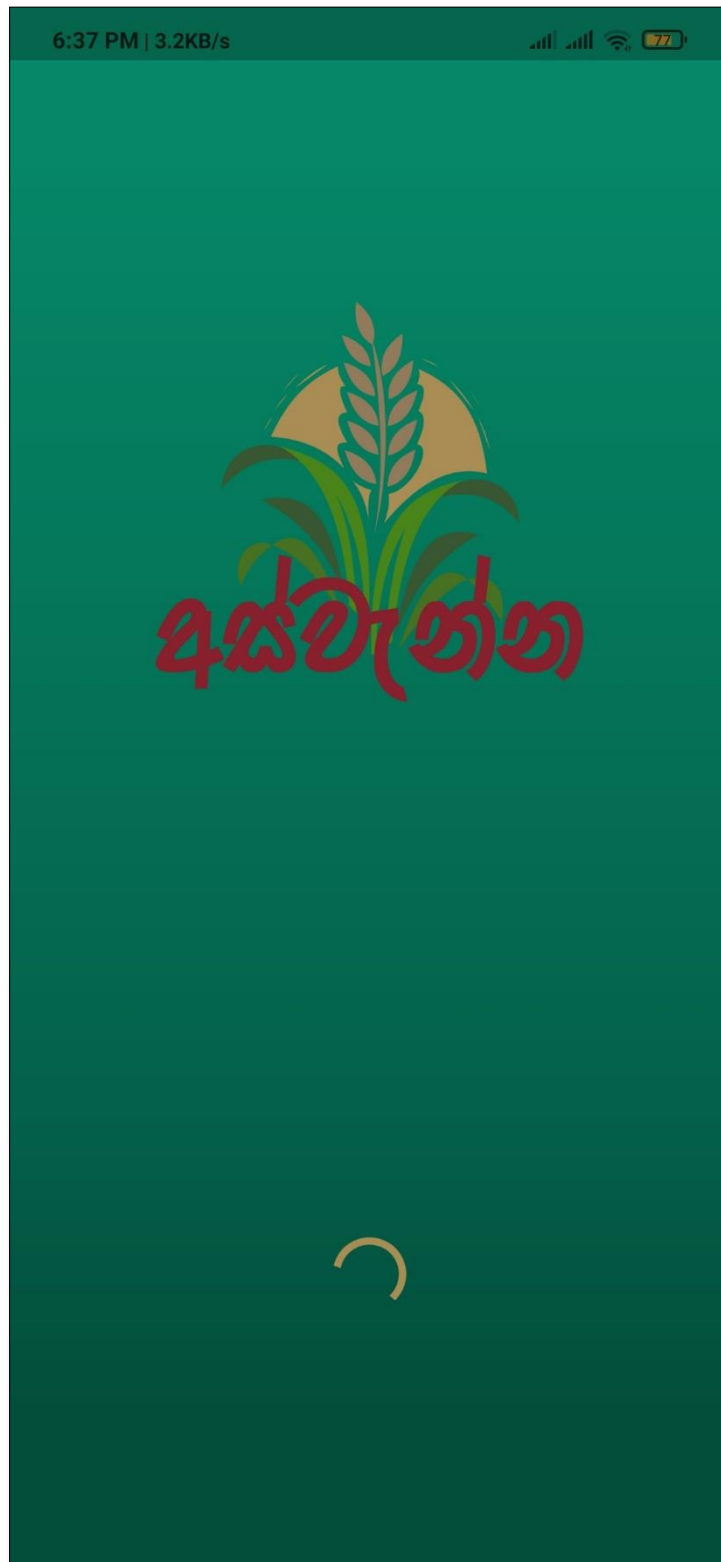


Figure 1 - Loading Screen



## Sign in Screen

6:36 PM | 1.3KB/s

# Sign In

Email

Enter Your Email

Password

Enter Your Password



[Forgot Password?](#)

☐ Remember me

LOGIN

- OR -

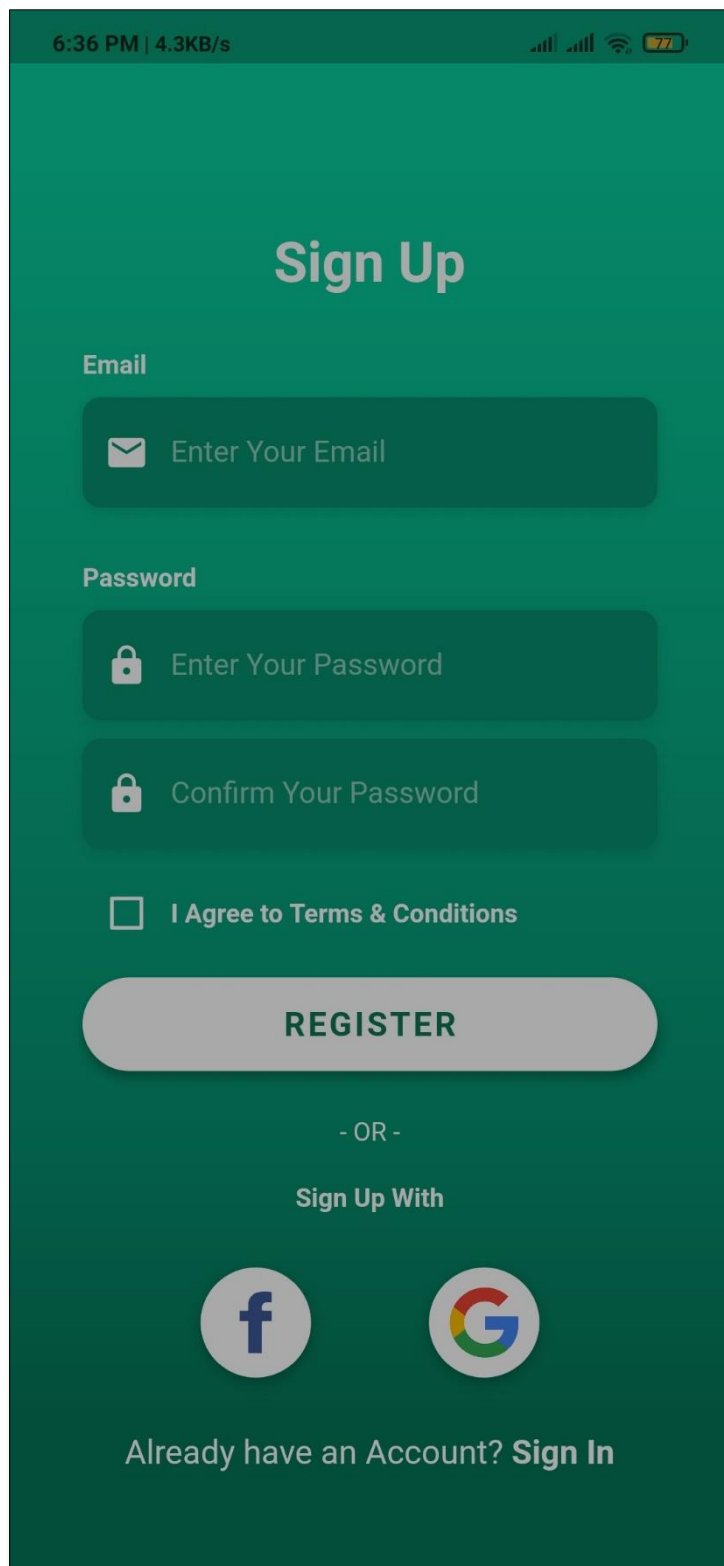
Sign In With

Don't have an Account? [Sign Up](#)

Figure 2 - Sign in Screen

## Sing Up Screen



The image shows a mobile app sign-up screen with a dark teal background. At the top, a status bar displays '6:36 PM | 4.3KB/s' and signal icons. The main heading 'Sign Up' is in white. Below it, the 'Email' section has a dark teal input field with an envelope icon and the text 'Enter Your Email'. The 'Password' section has two similar input fields, the first with a lock icon and the text 'Enter Your Password', and the second with the text 'Confirm Your Password'. Below these is a checkbox labeled 'I Agree to Terms & Conditions'. A large, light gray 'REGISTER' button is centered. Below the button is the text '- OR -' and 'Sign Up With'. Two circular social media icons for Facebook and Google are shown. At the bottom, the text 'Already have an Account? Sign In' is displayed.

6:36 PM | 4.3KB/s

# Sign Up

Email

Enter Your Email

Password

Enter Your Password

Confirm Your Password

☐ I Agree to Terms & Conditions

REGISTER

- OR -

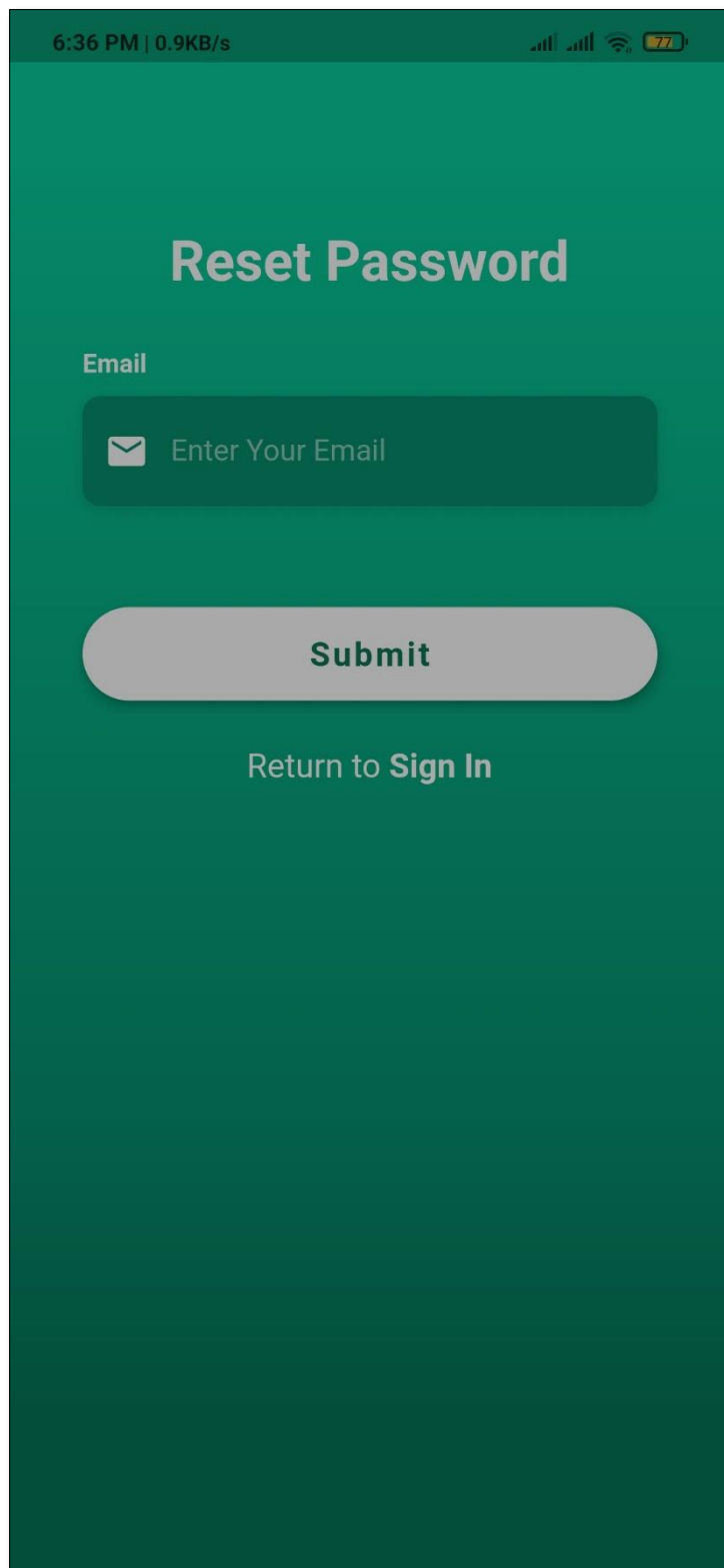
Sign Up With

f G

Already have an Account? Sign In

Figure 3 - Sign Up Screen


## Password Recovery Screen



6:36 PM | 0.9KB/s

# Reset Password

Email

 Enter Your Email

Submit

Return to Sign In

Figure 4 - Password Reset Screen

## Gmail Sing In

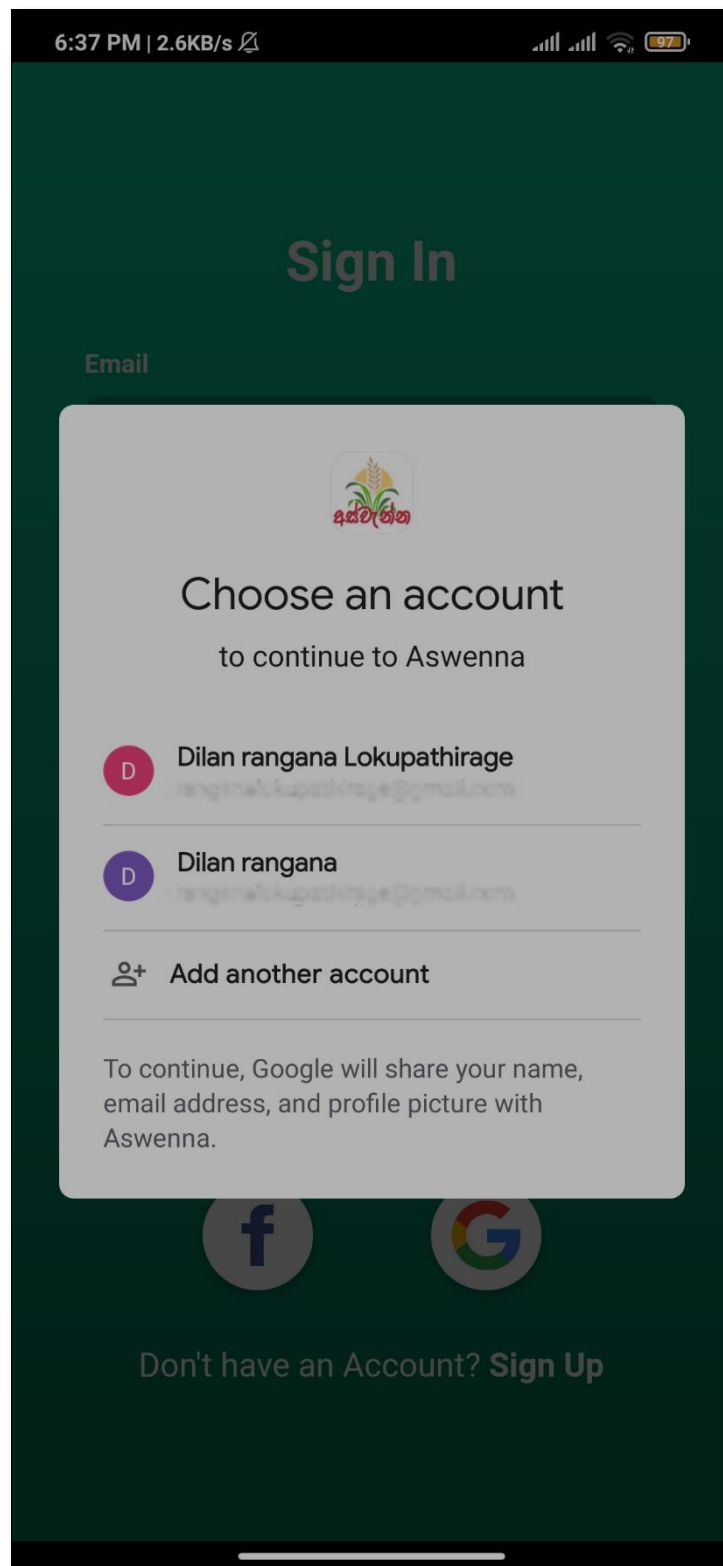


Figure 5 - Gmail Sign in Screen

## Facebook Sign In

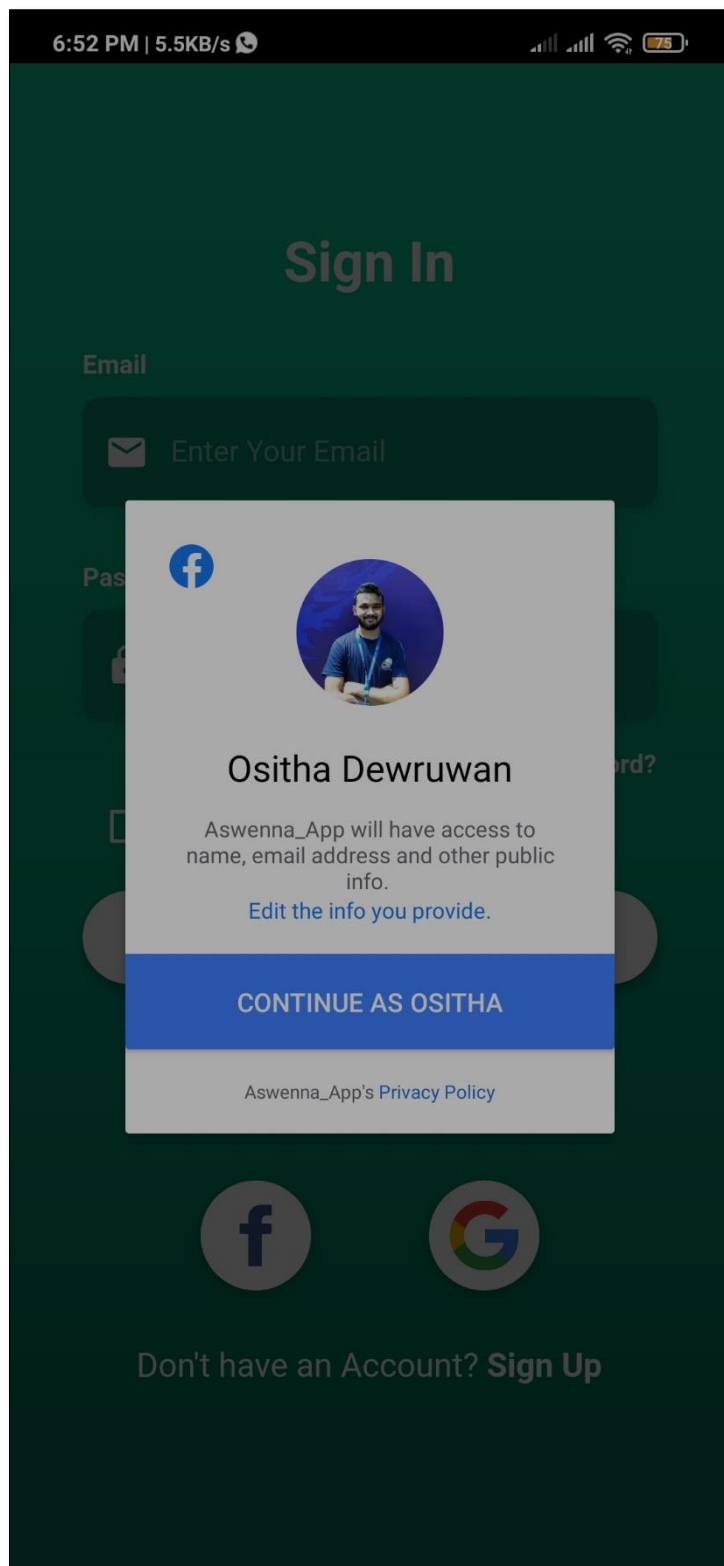


Figure 6 - Facebook Sign in Screen

## Collect User Data Screens

6:52 PM | 0.9KB/s

### User Details

## Complete Your Profile

**First Name**

Ex: Amila

Enter your common name as your first name

**Last Name**

Ex: Thilak

Enter your other common name, if any, as your last name to make it meaningful when read together with your first name

**Gender**

☐ Male ☐ Female

Choose your gender

**Next**

Figure 7 - Collect User Data Screen 01

6:56 PM | 0.4KB/s

← User Details

### Complete Your Profile

**Address**

📍 Street Address

📍 Address Line 2 (Optional)

Enter your permanent address

**City**

📍 Ex: Nugegoda

Enter your permanent address

**District**

📍 Select Your District ▼

Select your living district

**Province**

📍 Select Your Province ▼

Select your living province

Next

Figure 8 - Collect User Data Screen 02

6:57 PM | 0.1KB/s


74

←

User Details


Complete Your Profile

Mobile

 EX: 0712345678



Enter your current working, 10 digit mobile number. this will be used to contact you by Aswenna and you must verify your number

National Identity Card Number

 EX: 987654321V

Enter your current working, 10 digit mobile number. this will be used to contact you by Aswenna and you must verify your number

User Status

 Select Your Status 

If you are a farmer or do you want to sell your produces please select "I am a Farmer" , if you are a customer or do you want to buy produces please select "I am a Customer"

Submit

Figure 9 - Collect User Data Screen 03



## Customers Dashboard Screen

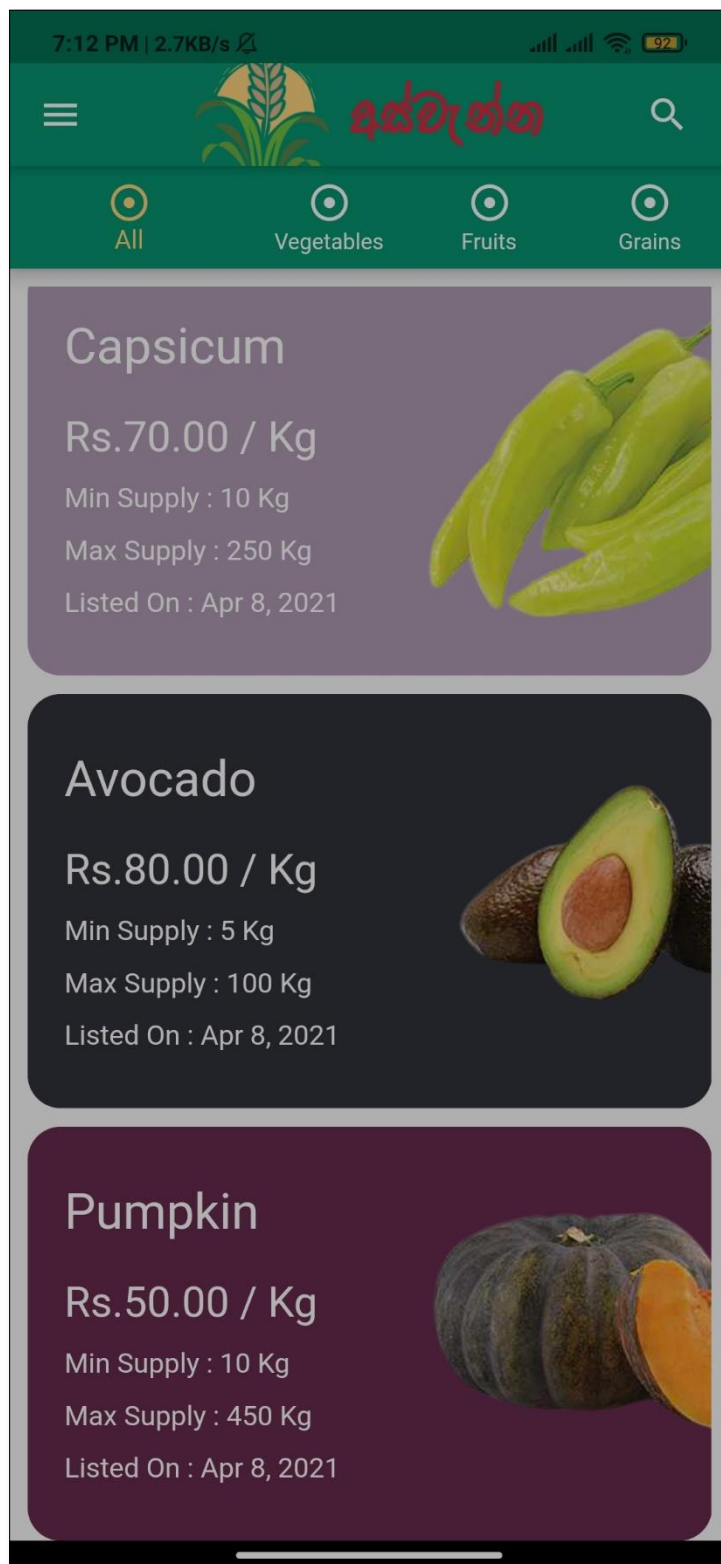


Figure 10 - Customer Dashboard All

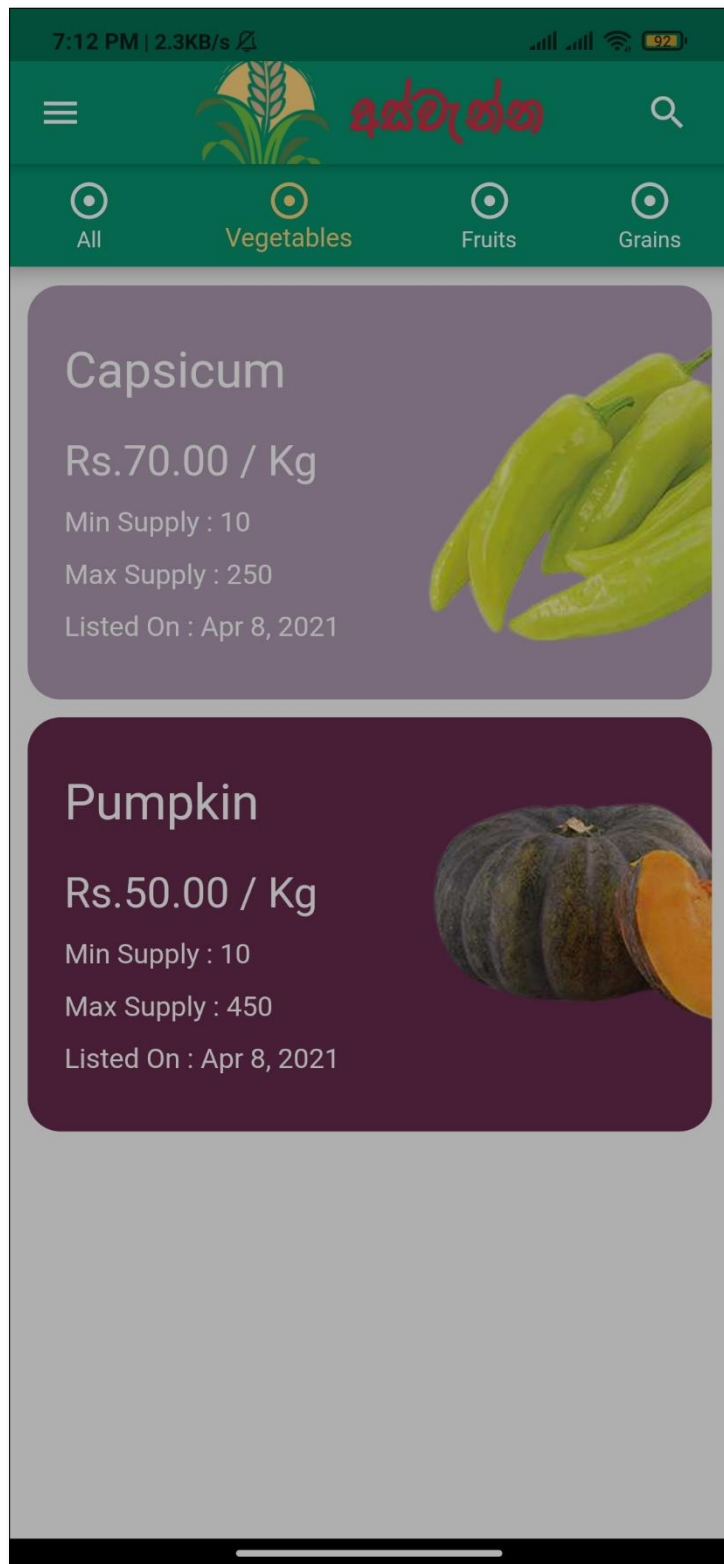


Figure 11 - Customer Dashboard Vegetables

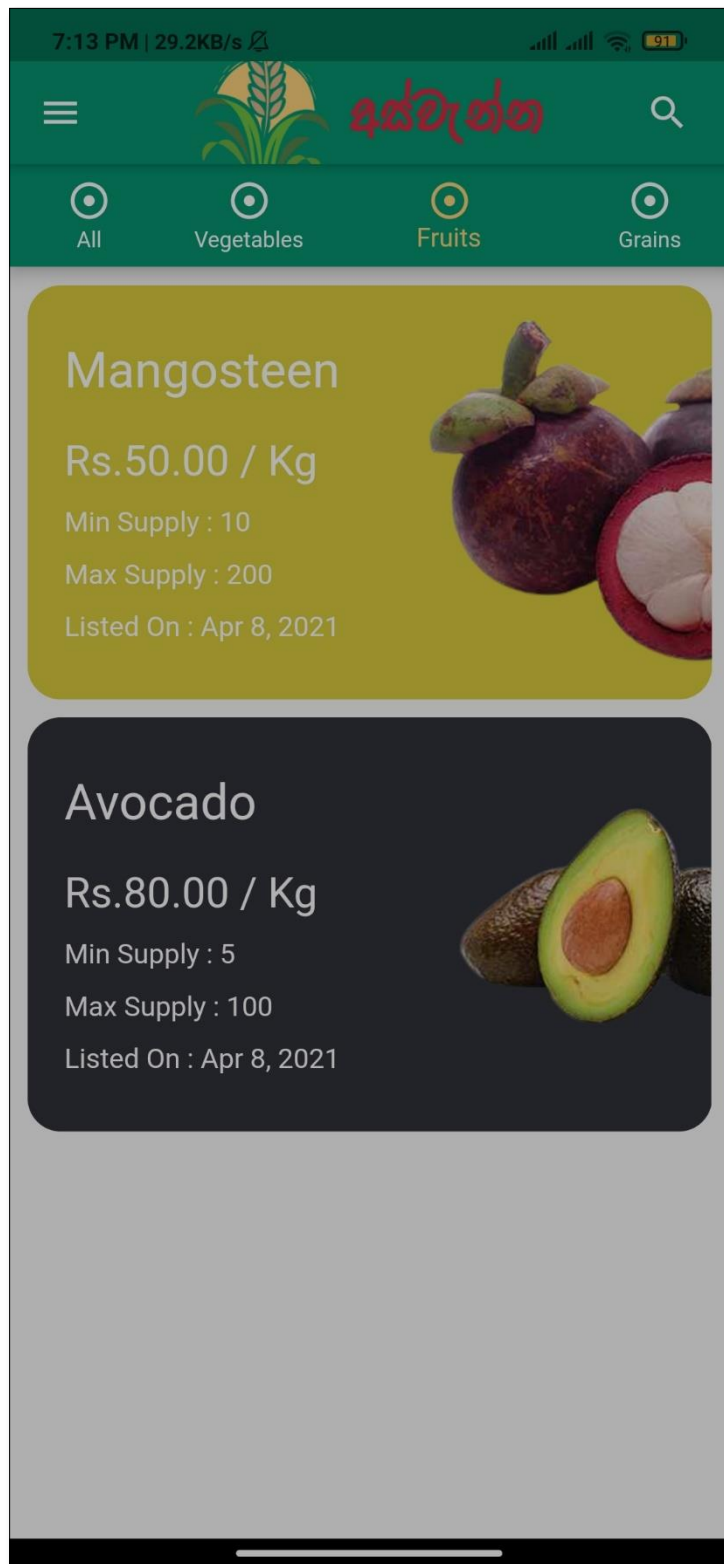


Figure 12 - Customer Dashboard Fruits

## Farmers Dashboard Screen

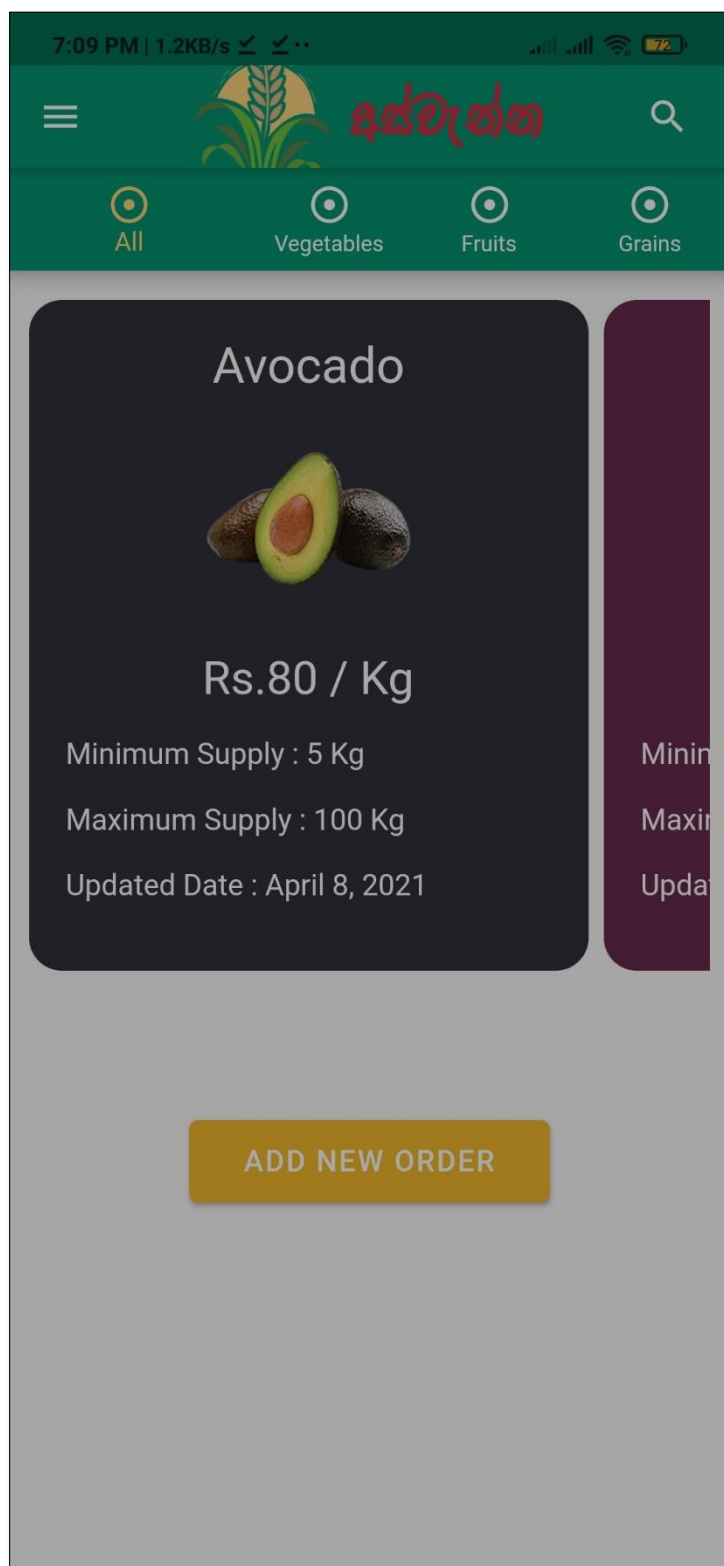


Figure 13 - Farmer Dashboard All

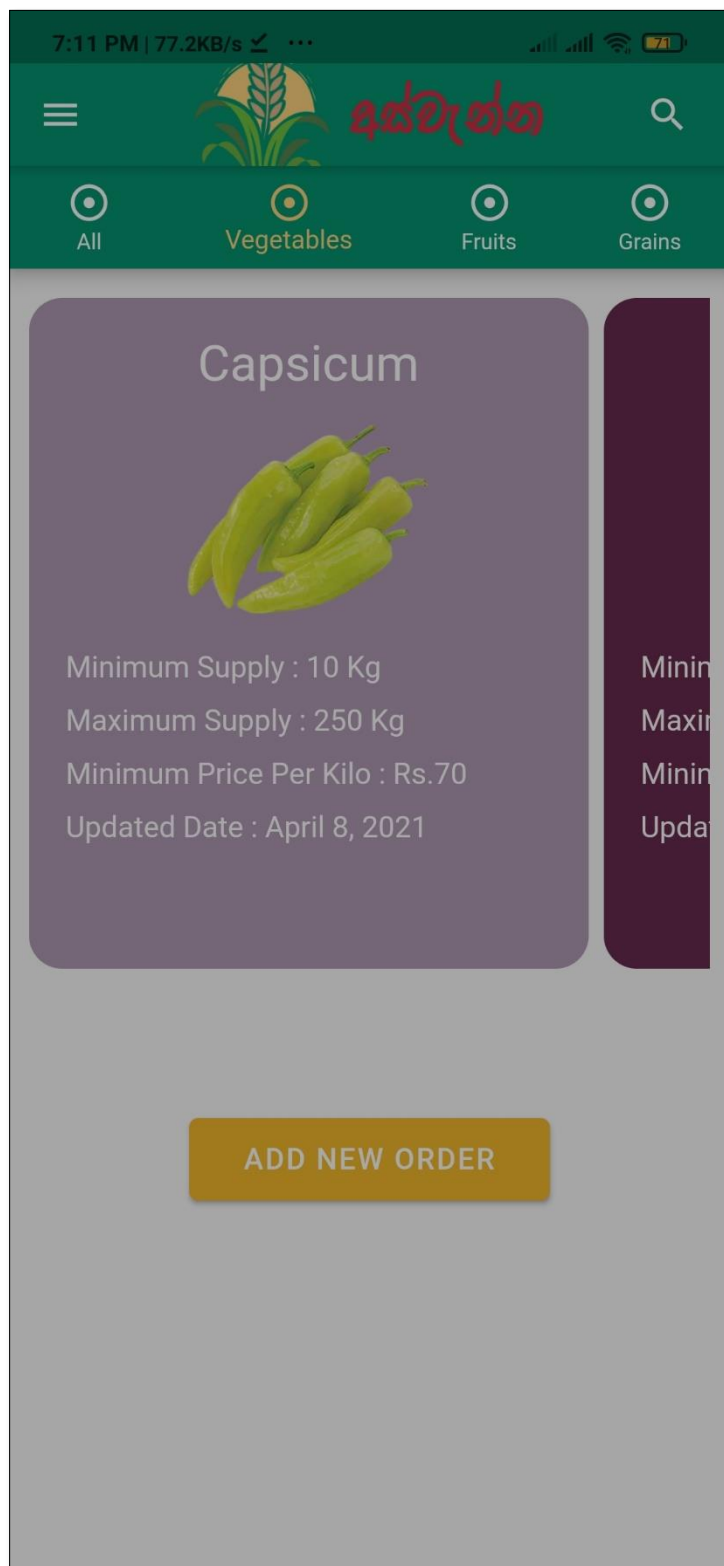


Figure 14 - Farmer Dashboard Vegetables

## Customer Product Details Screen

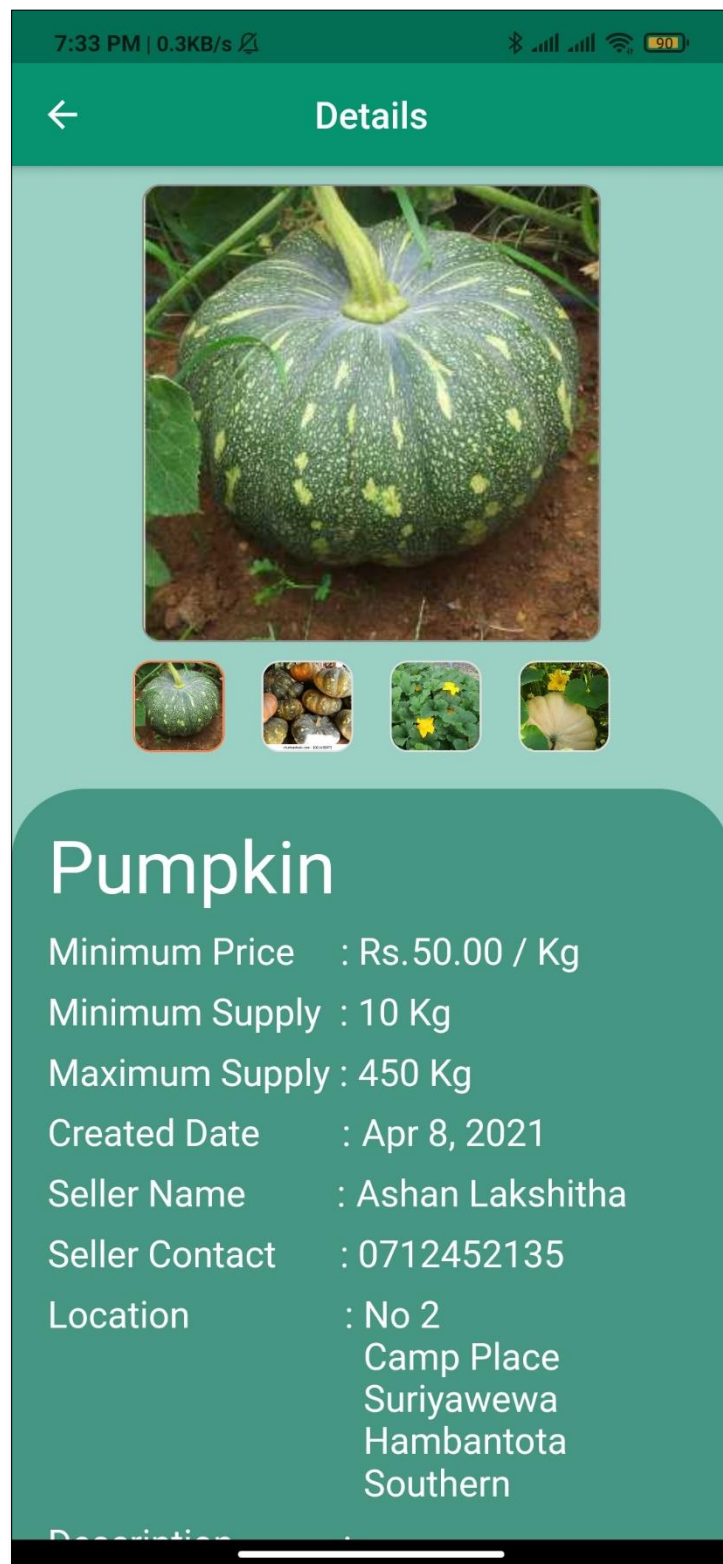


Figure 15 - Customer Product Detail Screen

## Farmer Product Detail Screen

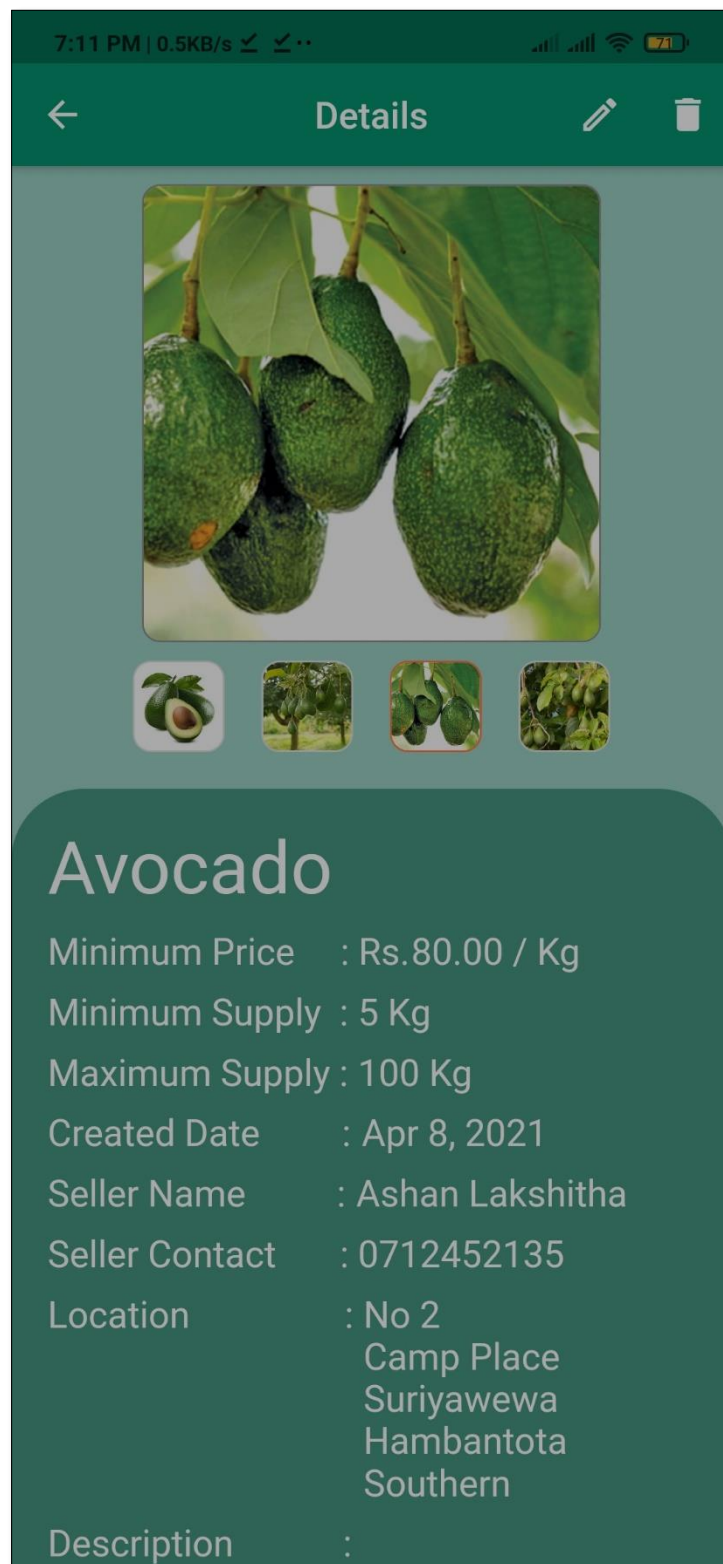


Figure 16 - Farmer Product Detail Screen



## Edit Product Option

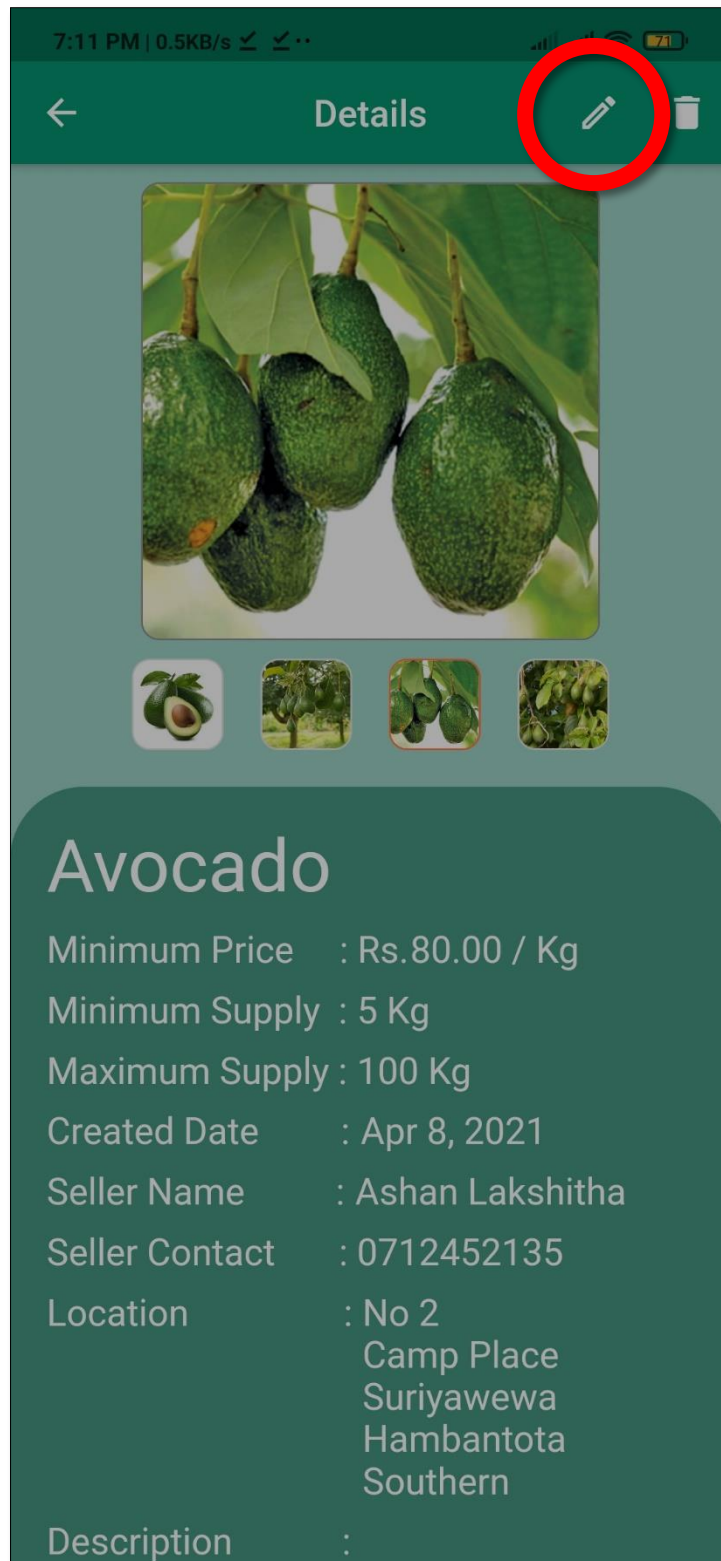


Figure 17 - Product Edit Option



## Edit Product Screen

7:11 PM | 0.9KB/s

### Edit Order

**Product Category :** Fruit >  
Select The Marketing Product Category Here.

**Product Name :** Avocado >  
Select The Name Of The Marketing Product Here.

**Minimum supply quantity :** 5 Kg >  
Enter The Maximum Amount Can Provided To You Here.

**Maximum supply quantity :** 100 Kg >  
Enter The Minimum Amount Can Provided To You Here.

**Minimum Price Per Kilo :** Rs. 80 >  
Enter The Lowest Price You Expect Your Product To Sell For.

**Where products are available :** >  
Enter The Place Where Customers Should Come To Get Your Products. (Address)

No 2  
Camp Place  
Suriyawewa  
Hambantota  
Southern

**Description :**

Figure 18 - Product Edit Screen 01

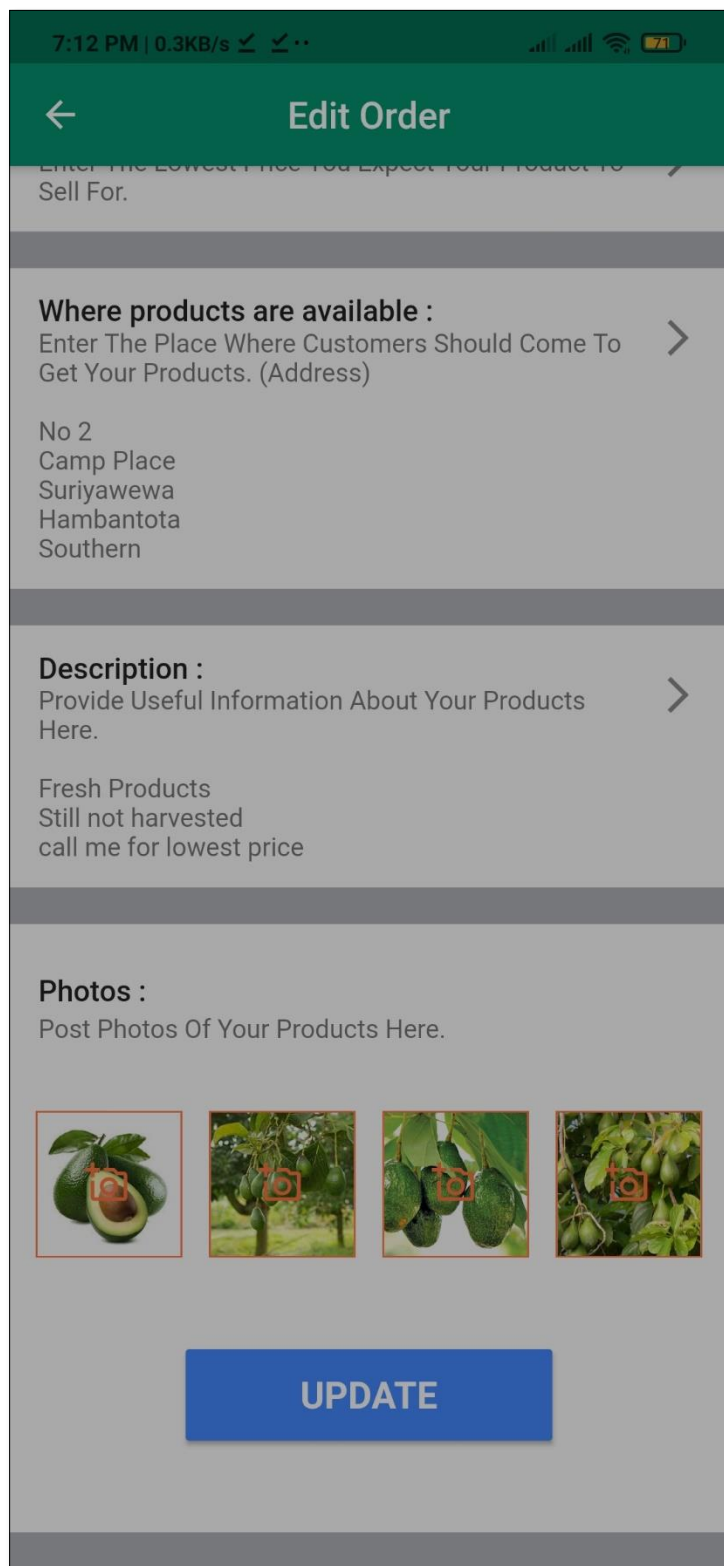


Figure 19 - Product Edit Screen 02

## Delete Product Option



Figure 20 - Product Delete Option

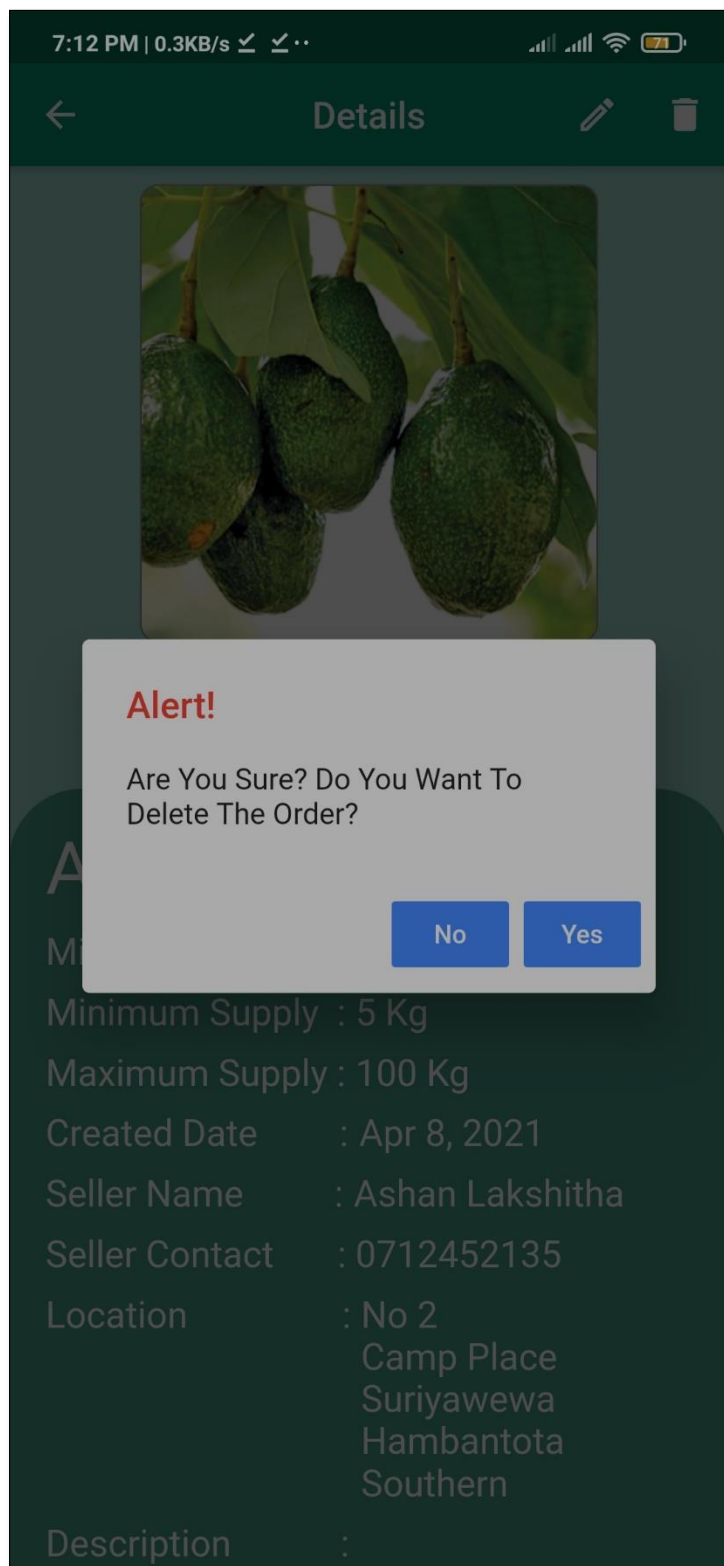


Figure 21 - Product Delete Confirmation

## Add Product Screen

6:58 PM | 0.4KB/s

← Add New Order

**Product Category :** Choose Here ▾ >  
Select The Marketing Product Category Here.

**Product Name :** >  
Select The Name Of The Marketing Product Here.

**Minimum supply quantity :** >  
Enter The Maximum Amount Can Provided To You Here.

**Maximum supply quantity :** >  
Enter The Minimum Amount Can Provided To You Here.

**Minimum Price Per Kilo :** >  
Enter The Lowest Price You Expect Your Product To Sell For.

**Where products are available :** >  
Enter The Place Where Customers Should Come To Get Your Products. (Address)

**Description :** >  
Provide Useful Information About Your Products Here.

Figure 22 - Add New Product Screen 01



## Image Upload Screen

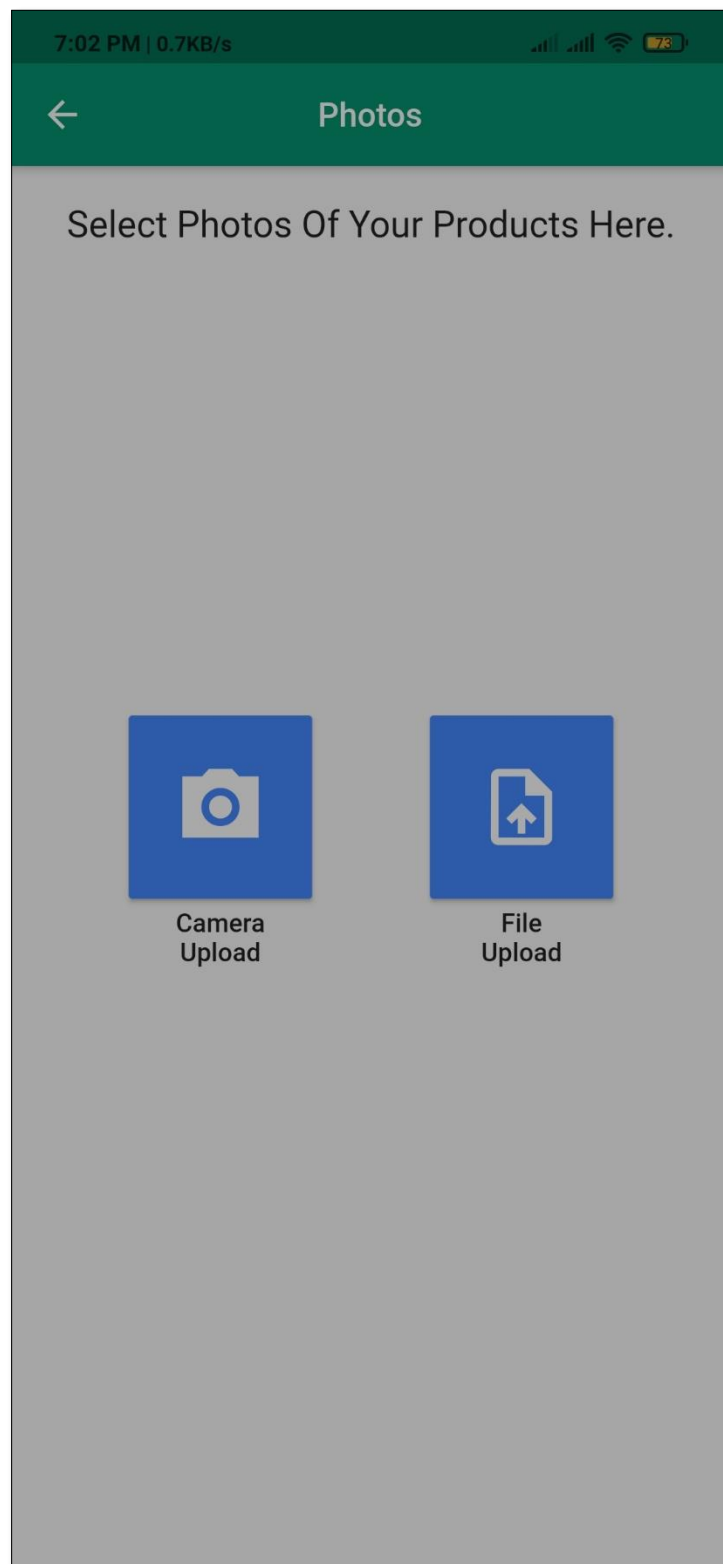


Figure 24 - Image Upload Screen

## Some Other Screens and Windows.

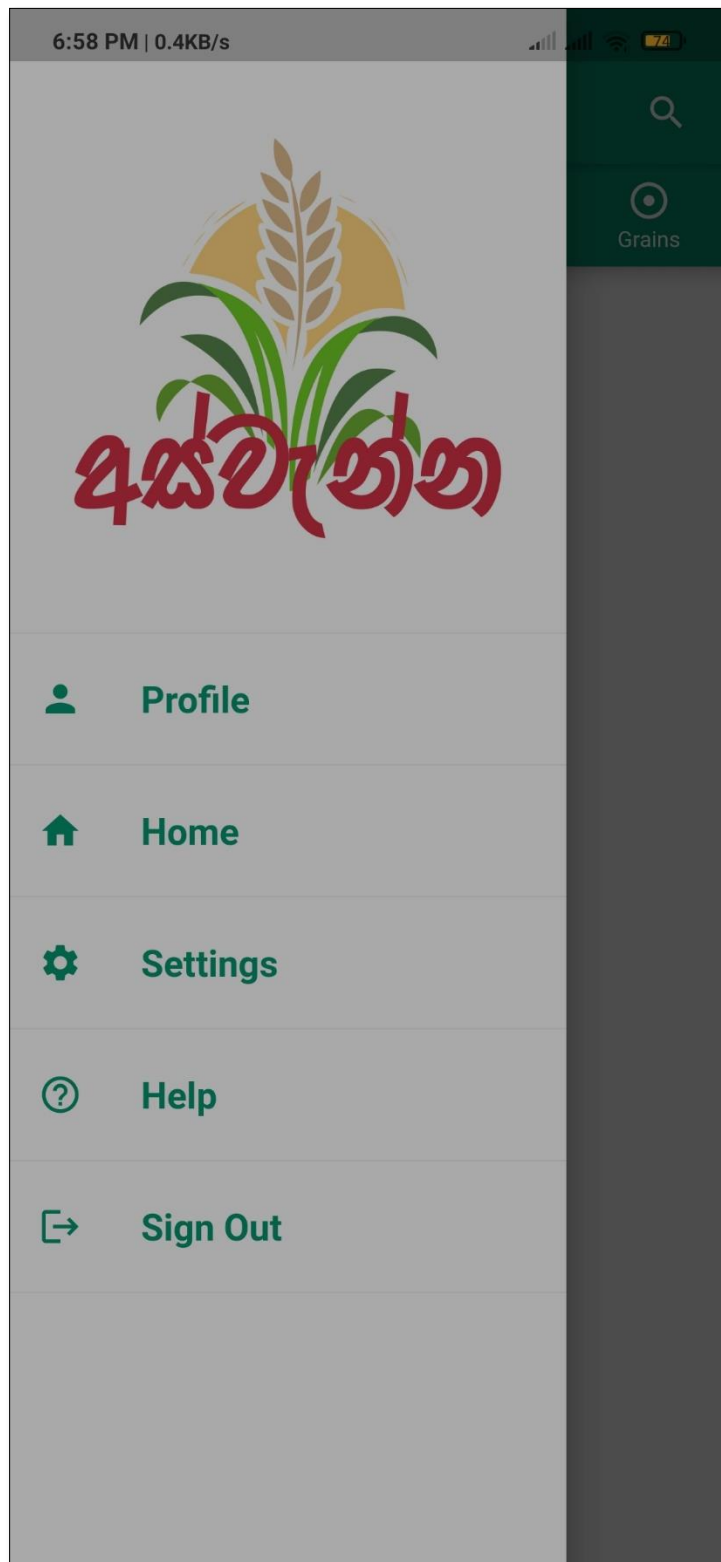


Figure 25 - App Drawer





Figure 26 - Product Selection Screen Vegetable



Figure 27 - Product Selection Screen Fruit

## Discussion

In this project, I used Flutter Framework and Dart language with Firebase Firestore, Firebase Authentication, and Firebase Storage Services. before I start to develop this application, I did simple research about interfaces and coding methods. I developed this application while self-studying about mobile app development and new technologies. I tried to design the application at the professional level. while I developing the app I got ideas and feedbacks from my friends I study other apps to get more ideas and knowledge. sometimes I faced some problems in interface designing. so I fixed those problems with the help of the "StackOverflow" knowledge-sharing community. the main problem I faced was handling Firebase Services. but finally, I could understand those problems and fix those. In the future, I expect to publish this project for the common society. also, I hope to combine transport service with this application and give a production delivery service for buyers through this app. and also I expect to give more knowledge about farming through this app. besides I try to communicate with government related departments and deliver their agricultural support to the farmers directly through this app.

## Conclusion

This project consists of a mobile application. The project's goal is to reduce the wastage of agricultural products and establish a market for farmers without brokers. The mobile application (Aswenna) focuses on place an order of agricultural products before harvesting and makes direct interconnection among farmers and buyers.

## Reference

<https://stackoverflow.com/>

<https://levelup.gitconnected.com/>

<https://flutter.dev/>

<https://flutterforum.co/>

<https://pub.dev/>

<https://firebase.google.com/>

<https://firebase.flutter.dev/>

<https://www.tutorialspoint.com/>

<https://www.freecodecamp.org/>

<https://www.solutelabs.com/>

<https://hackr.io/>

<https://www.educative.io/>

<https://dart.dev/>

<https://www.mygreatlearning.com/>