# Freshroot Online Fruit and Vegetables Selling Application

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**Abstract:- Online vegetable purchasing application have become popular in recent year due to the ease and convenience they offer to customers. Buying vegetables from hawkers through an online application is a convenience and time saving way to shop for fresh produce. Using the application, customers can browse the available vegetables, view their details, and make purchases. This application also offers features like search, filter and sorting to help customers find the vegetables they need quickly. The application also provides the option to choose the quantity of each item, making it easy to buy exactly what is needed and have it delivered directly to their doorstep. This method of purchasing vegetables not only saves time but also allows customers to compare process and avoid the hassle of physically going to a market or store. Additionally, online application often offers, making it a cost-effective option as well. Overall, buying vegetables through an online application is a convenient, efficient and increasingly popular way to shop for fresh produce.**

*Keywords:- Application, Fresh and Vegetable, Home Delivery.*

## I. INTRODUCTION

Online vegetable and fruit selling project, aim to provide customers with fresh and nutritious produce right at their doorstep. Project is committed to promoting a healthy lifestyle by offering a wide range of seasonal and organic fruits and vegetables that are sourced directly from local farms and producers.

An online platform is designed to make shopping for fruits and vegetables easy and convenient for customers. With just a few clicks, customers can browse through wide selections of fresh produce, placed their orders, and have them delivered right to their doorstep.

Dedicate to providing customers with the highest quality products, excellent customer services, and competitive prices. Team of experts carefully selects each item to ensure that only the freshest and most nutritious produce reaches to customers.

Everyone deserves access to fresh, healthy, and delicious fruits and vegetables, and are committed to making that a reality for customers. So, come and join us to this journey towards a health their lifestyle and let be trusted source for all fruit and vegetables needs.

Selling fruits and vegetables online is gaining immense popularity. It is convenient, to assured of quality products and the prices are reasonable. The biggest advantage is they are delivered to a doorstep. Customer can either buy bulk produce from farmers, start a business-2-business venture, or set up entrepreneurial journey online. A good vegetable business plan becomes mandatory in both cases. Most couples are working professionals and nothing would make them happier than receiving their quota of groceries at their doorstep.

The benefits of such a business venture are varied. Customers add to farmers earning whether they buy directly from them or wholesalers. Seller can deliver fresh produce to buyers. This also helped to improve the overall health of customers. The vegetables and fruits directly from the farmers, add to their earnings as there are no middlemen. Seller can start on small scale, build association and relationship with the local farmers, and perhaps then expand the business on large scale. After China, India holds the record for being the largest producer of vegetables and fruits across the globe. And explore the various advantages of selling farms produces online.

➢ *Problem Statement*

The problem statement of Freshroot online fruit and vegetables selling application is to provide a user-friendly platform that enables customers to purchase fresh fruits and vegetables online at competitive prices, with convenient delivery options, and excellent customer service. The application aims to disrupt the traditional brick and mortar model of grocery shopping and provide a seamless online shopping experience for customers. The application also aims to provide a platform for small-scale farmers to sell their produce directly to customers, thereby reducing the intermediaries and increasing their revenue.

➢ *Objectives*

- *Convenience:*
  To provide customers with a convenient and hassle-free Platform to purchase fresh and high-quality vegetables from the comfort of their homes or office.

- *Quality:*
  To ensure the quality and freshness of the vegetables being sold by partnering with trusted farmers or suppliers and implementing proper storage and transportation process.

- *Variety:*
  To offer a wide variety of vegetables to cater to different customers preferences, dietary needs and seasonal availability.

- *Competitive Pricing:*
  To offer competitive pricing to attract and retail customers by leveraging technology and economics of scale to reduce overhead costs.

- *Efficiency:*
  To optimize the supply chain and delivery processes to ensure prompt and efficient delivery of vegetables to customer.

- *Sustainability:*
  To promote sustainable and eco-friendly practices, such as reducing food waste, using biodegradable packaging and supporting local farmers.

- *Customer Satisfaction:*
  To prioritize customer satisfaction by providing prompt and reliable customer services, resolving issue promptly and incorporating customer feedback to improve the application feature and user experience.

## II. LITERATURE SERVEY

- Sell and Buy Homegrown Vegetables and Fruits Online (C. Preethi, V. S. S. Saran, M. Meikannan, S. S. Hammed, K. Haripriya and B. A. Kumar) (2023) this application provides building process for customer Using E-Commerce UML Algorithm.
- Bid and Buy (H. Rahman, E. Barua, S. Afrin, A. Rahman and M. Monirujjaman Khan) (2021) this application provides bidding process for customer using MySQL database, PHP and Python.
- Design and Implementation of a Secure OR Payment Based on visual Cryptography(Lina Ahmad, Rania AI-Sabha,Ali AI Haj)(2021)the application provides a simple and user-friendly interface for user to carry out payment transaction in user-friendly environments.

- Farmer's E-mart : An E-Commerce Store For Crops," (K. Saini, I. Mishra and S. Srivastava) (2021) Advances in Computing, Communication Control and Networking
- Agent-based simulation improves E-Grocery Deliveries using horizontal cooperation(Adrian Serrano-Hernandez,Javier Faulin)(2020)this paper provides E-grocery deliveries using Horizontal cooperation.
- Quality Detection of Fresh Fruits and Vegetables to Improve Horticulture and Agro-industries.(S. Gnanavel, S. Manohar, K. E. Sridhar, S. Sokkanarayanan and M. Sathiyanarayanan) (2019) This is a online web-site created by usng Pyhton, MySQL and Bootstrap.
- Saving the vegetable paddler with information technology(P. E. Masudia, M. Sarosa, A. E. Rakhmania, U.Z. Muhammad) (2018) this application aims to develop an online groceries trading to help farmers to increase their sales by finding buyers, the technology used was MySQL software with PHP Notepad programming language andXampp.

## III. PROPOSED METHODOLOGY

➢ *General Information about Our Services*
  **Freshroot** is an online marketplace where shopkeepers can sell their fresh vegetables and fruits customers can buy them with easy. The application allows shopkeeper to create their profile. Add their vegetables and fruits with images and other information and set prices. Customers can browse the available vegetables at fruits, view their details and make purchases. The website also offers features like search, filter and sorting to help customers find the vegetables and fruits they need quickly. Paymentcan be made securely through the application. With Freshroot, buying and selling vegetables and fruits has been easier.

➢ *Login for Registered Customer and Vendors.*

- Customer
- Vendors

- *Interface for Customer:*
  List of fruits & vegetables details, view vegetable & fruits specifications, view payments details. edit and list of vegetables & fruits, List stock available, Track supply transport, shipping and Delivery Updates, List previous purchase and transport, reset password, Log-out for new participated etc.

- *Interface for Vendors:*
  List and Add vegetables & fruits details, view customer demands, view payments details from customer, list of vegetables & fruits. List stock available, Track supply transport, shipping and delivery, List previous supply and transport, reset password, Log-out for new participated etc.

## IV. MODULES

The system consists of the following modules:

➢ Hawkers
➢ Customers
➢ Product
➢ Payment

Module Description:

➢ *Hawker:*
The Hawkers module for an online vegetable and fruit selling application typically include the following features:

- Product listening: The model would enable hawkers to list the fresh produce they have available for sale. They should be able to add details such as product name, description, weight, price and quantity.
- Order management: The module would allow hawkers to manage their orders, view the details of orders, and keep track of their delivery status.
- Inventory management: The module should allow hawkers to manage their inventory and keep track of the stock levels. They should be able to update stock level based on the orders received.
- Payment management: The module should integrate with a payment gateway to facilitate online payments for a customer orders.
- Delivery management: The module should allow hawkers to manage their delivery personally, assign orders to them and track the delivery status.
- Reporting and analytics: The module should provide hawkers with insight into their sales, stocks, levels and customer preference through reports and analytics.
- Customer support: The module should provide a platform for hawkers to communicate with their customers and provide support if required.

➢ *Customer:*
The customer module of an online vegetables and fruit selling application involve following functionalities:

- User registration: This feature will allow to customer to create an account with application, which require them to provide their personal information, such as name, email address, phone number and delivery address.
- Browse products: Customer will be able to browse through the list of available vegetables and fruits on the application. They can search for specific item, filter the products by category or price, and view details descriptions and images of each product.
- Add to cart: Customers can add the desired products to their cart, which will accumulate their total order value.
- Place order: Once the customer has added all the required item to their cart, they can proceed to the checkout page and place the order. They will be prompted to select a delivery time and payment method.
- Payment processing: The application should allow customers to pay for their orders using various payment methods, such as credit card, debit card, mobile wallet.

➢ *Product:*
Here are some points about the vegetable selling product module:

- Inventory management: The module should have a feature to manage the inventory of the vegetable available for sale. This includes keeping track of the quantity, pricing and stock availability.
- Order management: The module should have a feature to manage orders from customers. This includes tracking order, processing payment and updating the inventory as orders are fulfilled.
- Customer management: The module should have a feature to manage customer information, including contract detail, address, order history and preferences.
- Pricing management: The model should have a feature to manage pricing of the vegetables, which can be adjusted based on factors such as supply and demand, seasonality and competition.
- Delivery management: The module should have feature to manage the delivery of the vegetables to customers. This includes tracking delivery status, assigning delivery personal, and managing logistics.
- Reporting and analytics: The module should have features to generate reports and analytics on sales performance, inventory labels, customer behaviour and other key metrics. This can help identify trends and opportunities for improvement.
- Integration with other systems: The module should be able to integrate with other systems, such as accounting software, payment gateways and marketing platforms, to streamline operations and improve efficiency.
- User interface: The module should have a user-friendly interface that makes it easy for users to manage their vegetable selling operations. This includes features such as search, filters and alerts to ensure that users can quickly find the information they need.

➢ *Payment:*
The payment module of an online vegetables and fruit sealing application would involve the following functionalities:

- Payment getaway integration: The application should integrate with a secure payment gateway that can process online transactions, ensuring the safety and security of customers data and transactions.
- Payment methods: The application should offer various payment methods, such as credit card, debit card, net banking, mobile wallet, to provide customers with a choice of payment options.
- Payment processing: Once the customer has selected their preferred payment method, the application should process the payment securely and efficiently, with real time updates on the status of the transactions.
- Invoice generation: After the payment is successfully proceed, the application should generate an invoice with the details of transactions including the products detail, price, and any applicable taxes and discounts.

- Refund processing: In case of any order cancellations or returns, the application should initiate the refund process and credit the amount back to customers account through atthe same payment method used for the transactions.
- Payment notifications: The application should send notifications to customers confirming the payment status and order details, providing them with a record of the transactions.
- Secure payment storage: The application should securely store customer payment information, including credit card, debit card details, to make it easy for customers to make future transactions without having to re-turn their payment details.

## V. RESULT

The output of the application consists of home page which shows available vegetables and fruits along with their price and other filters. It contains the vegetables of different categories like root vegetables, leafy vegetables, citrus fruits, etc.

This application gives the shopping cart to see your order Vegetables and fruits and also the subtotal of your products what you have ordered.

Also provides payment options such as net banking, wallets and others options also.
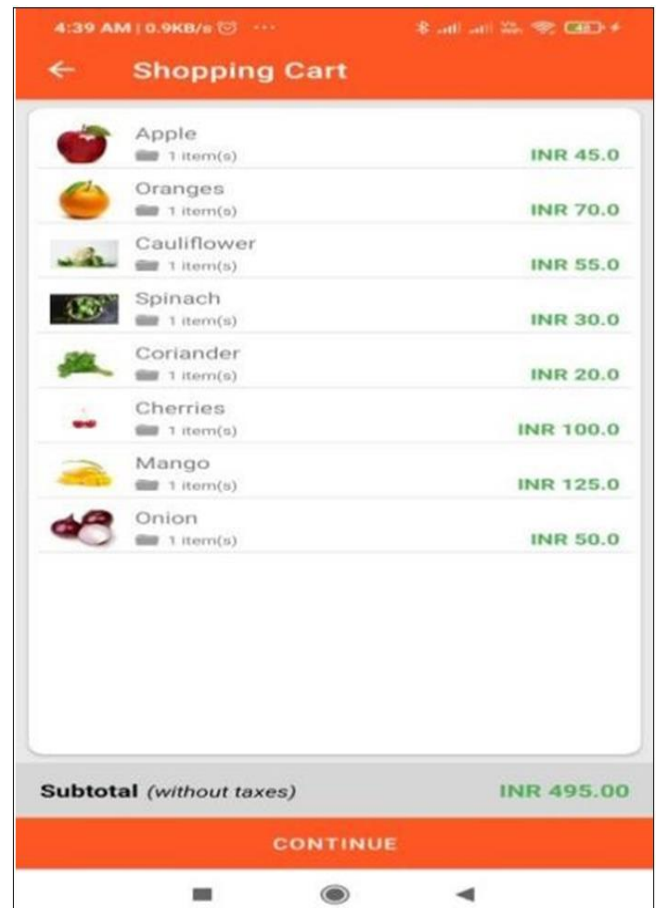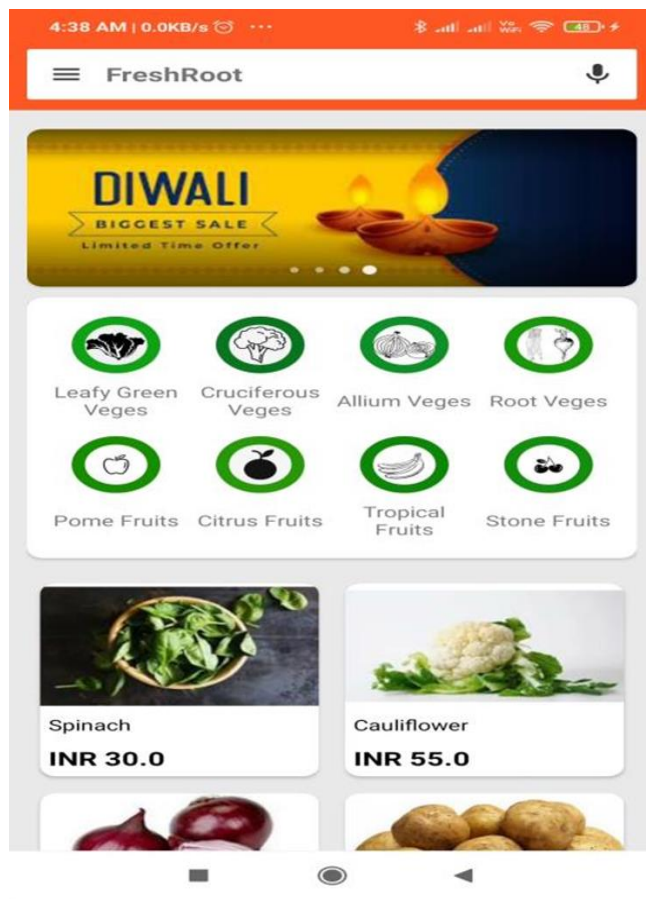
The output of application are provided below:
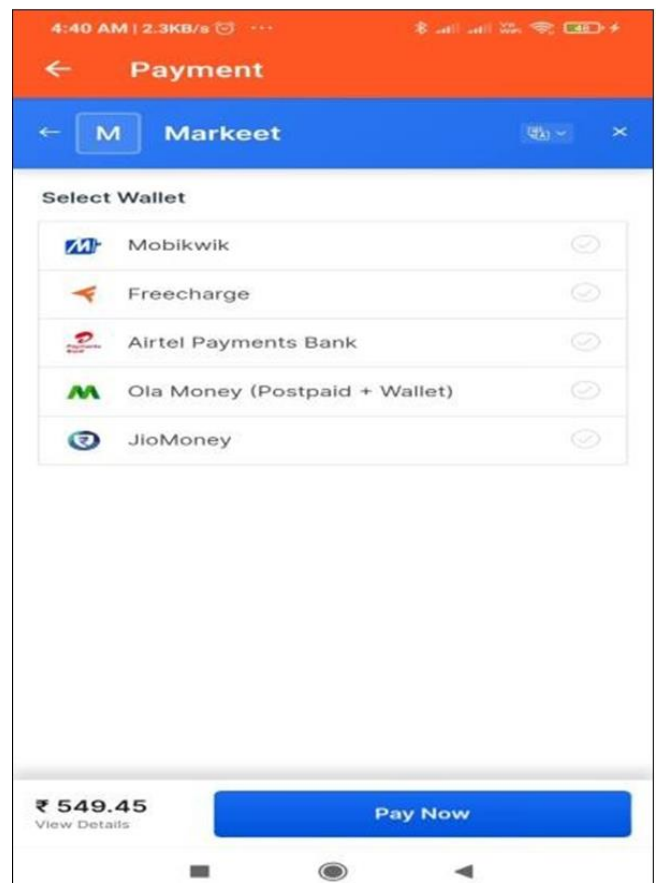


Fig 1 Output of Home Page



Fig 2 Shopping Cart



Fig 3 Payment Method

## VI. BENEFITS

➢ *Traffic and Crowd can be avoided:*

It is quite irritating for individuals to get stuck in traffic while out shopping. Traffic and distance traveling are a few drawbacks when shopping is planned. In that manner, people opt to order vegetables online in their locality. This is very simple for people as they can shop from the comfort of their homes. The vegetables and fruits bought online are preserved in low temperatures in warehouses and not polluted by traffic and other parameters.

➢ *Time saved:*

We all run life in this busy world and allocating time for other aspects is quite difficult and also on burden to the scheduled. Hence using online options are feasible and comfortable. When people order vegetables online, they find its hassle free as they can pick their choice with just a few clicks. When a comparison is made with the traditional method, online shopping for vegetables is easy. Another key advantage is that online shopping for vegetables can be done anytime around the clock 24/7. There is not any fixed time to shop. Hence shopping online for vegetables is less time consuming and also beneficial.

➢ *All over India Delivery:*

The biggest advantage of buying vegetables and fruits online is the shipping benefits. After shopping minimum requirements, the shopped vegetables are brought to your doorstep. This is the key benefit for which many people shop online. They get their desired product within a specific time to their doorstep.

➢ *Net Banking or UPI:*

People find payment options very easy with online shopping for vegetables and fruits, it is either through net banking or UPI. One payment for all vegetables together is easy.

➢ *Ultrasonic Process Cleaning:*

Ultrasonic and ozonation processes are used to cleaning the vegetables and fruits. Ozonation is a process where a molecule is composed of three oxygen atom and formed utilizing "photolysis". Ozonation is easy to implement, cleans quicker compared to other disinfectants, etc.

➢ *Managing Bills and Reordering:*

People opt to buy vegetables and fruits online as they can manage their bills online and ordered copy of bills is always present online. More over online shopping offers the facility to reorder at any time. The sites maintain is list of all the shopping done on specific dates and hence reordering is very simple.

## VII. CONCLUSION

In conclusion, an online vegetables and fruits selling application can be great solution to make fresh produce easily accessible to people, especially in urban areas where access to quality produce can be limited. The application can offer a convenient platform for customers to browse and purchase a variety of fruits and vegetables from the comfort of their own homes.

The application can also provide benefits to farmers by offering a new sales channel to reach a larger customer base and potentially increase their profits. By eliminating intermediaries, farmers can also receive a higher profit margin for their produce.

To ensure the success of online vegetables and fruits selling application, it is important to focus on user experience and offer features that make the application easy to use and navigate. This can include a variety of payment options, a streamlined checkout process to build trust among customers.

Overall, an online vegetables and fruits selling application has the potential to benefit both customers and farmers by providing a convenient platform to buy and sell fresh produce, and it can contribute to building a more sustainable food system.

The development of all modules for an online vegetable and fruit sailing application is not feasible at this time. Several factors, such as technical limitations, budget constraints, and time limitations, make it difficult to develop and maintain all the modules required for such an application.

## REFERENCES

[1]. C. Preethi, V. S. S. Saran, M. Meikannan, S. S. Hammed, K. Haripriya and B. A. Kumar, "Sell and Buy Homegrown Vegetables and Fruits Online .2023

[2]. H. Rahman, E. Barua, S. Afrin, A. Rahman and M. Monirujjaman Khan, "Bid & Buy: An Effective Online Based Platform for Client and Vendor. 2021

[3]. L. Ahmad, R. Al-Sabha and A. Al-Haj, "Design and Implementation of a Secure QR Payment System Based on Visual Cryptography," 2021 7th International Conference on Information Management (ICIM), London, United Kingdom, 2021,pp.10-44, doi: 10.1109/ICIM52229.2021.9417129.

[4]. K. Saini, I. Mishra and S. Srivastava, "Farmer's E-mart: An E-Commerce Store For Crops," 2021.

[5]. A. Serrano-Hernandez, J. Faulin, R. de la Torre and L. Cadarso, "Agent-Based Simulation Improves e-grocery Deliveries Using Horizontal Cooperation," 2020 Winter Simulation Conference (WSC), Orlando, FL, USA, 2020, pp. 1242-1253, doi: 10.1109/WSC48552.2020.9383961.

[6]. S. Gnanavel, S. Manohar, K. E. Sridhar, S. Sokkanarayanan and M. Sathiyanarayanan, "Quality Detection of Fresh Fruits and Vegetables to Improve Horticulture and Agro-industries," 2019

[7]. P. E. Masudia, M. Sarosa, A. E. Rakhmania, U. Z. Muhammad and E. S. Putri, "Saving The Vegetable Peddler (Mlijo) with Information Technology," 2018 Third International Conference on Informatics and Computing (ICIC), Palembang, Indonesia, 2018.