WEB BASED ORDER MANAGEMET SYSTEM FOR AGRICULTURE NURSERY PRODUCTS

A PROJECT REPORT

Submitted by
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DEPARTMENT OF INFORMATION SCIENCE AND TECHNOLOGY
COLLEGE OF ENGINEERING, GUINDY
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MAY 2022

BONA FIDE CERTIFICATE

Certified that this project report titled WEB BASED ORDER MANAGEMENT SYSTEM FOR AGRICULTURE NURSERY PRODUCTS is the bona fide work of Shubham Kumar who carried out project work under my supervision. Certified further that to the best of my knowledge and belief, the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or an award was conferred on an earlier occasion on this or any other candidate.

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ABSTRACT

Plants are essential to the balance of nature and in people's lives. It is a vital part of the world's biological and essential resource for the plant. A nursery is a place where plants are propagated and grown to a desired age. They include retail nurseries which sell to the general public, wholesale nurseries which sell only to businesses such as other nurseries and to commercial gardeners, and private nurseries which supply the needs of institutions or private estates. Nurseries may supply plants for gardens, for agriculture, for forestry and for conservation biology. Some produce bulk stock, whether seedlings or grafted, of particular varieties for purposes such as fruit trees for orchards, or timber trees for forestry. Some produce stock seasonally, ready in springtime for export to colder regions where propagation could not have been started so early, or to regions where seasonal pests prevent profitable growing early in the season.

This project aims to develop a web-based solution for agriculture nursery products in that customer buy the plant, trees and seeds from web application, services and information and to help people provide an outlet from their busy lives & indulge in nature. The modules of this system include user management(In this module user can sign up and login), order management(In this module user can placed the order), search service(User can search the products in web page) and report generation(After order placed they generate pdf).

In this project a Web application has been developed which consist of the above module. The tech stack used in this project are mentioned below:

- **Frontend:** React
- **Backend:** Spring Boot, Java
- **Database:** MySql

ACKNOWLEDGEMENT

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I would like to express my sincere thanks to the project committee members, DR. SASWATI MUKHERJEE, Professor, DR. M. VIJAYALAKSHMI, Associate Professor, DR. E. UMA, Assistant Professor, Department of Information Science and Technology, Anna University, Chennai for giving their valuable suggestions, encouragement and constant motivation throughout the duration of my project.

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Shubham Kumar (2019202053)

MCA (Regular)

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CHAPTER 1

1. INTRODUCTION

1.1 WEB BASED SOLUTION:

A nursery is a place where plants are propagated and grown to a desired age. They include retail nurseries which sell to the general public, wholesale nurseries which sell only to businesses such as other nurseries and to commercial gardeners, and private nurseries which supply the needs of institutions or private estates. Nurseries may supply plants for gardens, for agriculture, for forestry and for conservation biology.

1.2 PROBLEM STATEMENT:

Many people want to buy plants and they directly concerned to nursery and plants but sometimes people do not know specific information about particular items as well as seller which are not technically skilled.

Limited customers reached to the nursery because sometime customer need to travel for long distance as nursery is far from home.

1.3 OBJECTIVE:

The objective of this challenge is to build an online application to solve the problem of the user to buy a plant from nursery directly.

The spring boot provides backend and help to generate api. After that the react get the api and perform on it.

1.4 PROJECT OVERVIEW

This project is basically dealing with the plant nursery item, the user can buy nursery plant from web-based application they don’t need to go market and search the plant. All nursery plant should be provided on web application they can search and add to cart and placed the order.

1.5 ORGANIZATION OF REPORT:

Chapter 2: This chapter explains about the literature survey made on the existing system, analysing the problem statements and issues with the existing system.

Chapter 3: This module consists System design of the project with its preliminary design and descriptive details about the modules.

Chapter 4: This module consists Algorithm and pseudocode related to the models with their outcomes.

CHAPTER 2

2. LITERATURE SURVEY/RELATED WORK

This Chapter explains about the literature survey made on the existing system, analysing the problem statements and issues with the existing system and proposed objectives for the new system.

2.1 WEB BASED APPLICATION FOR AGRICULTURE ECOMMERCE LITERATURE SURVEY

A Web Based Application for Agriculture : "Smart Farming System" F. M. Javed Mehedi Shamrat, Md Asaduzzaman, Pronab Ghosh, Md Dipu Sultan, Zarrin Tasnim[1] A The application is planned so that future changes can be effectively done. The following conclusion can be accepted from the improvement of the project. Automation of the whole application improves the great association. It delivers a well friendly graphical UI and gives proper access to approved users depending upon their approvals. It successfully overcomes the delay in communications. Refreshing information turns out to be simpler. Application security, information security, and reliability are striking features. The System has a tolerable extension for adjustment later on in the event that it is basic. The System has a passable scope for modification in the future if it is essential.

Advantage E-Commerce Technology in Ornamental Plant Business H Hasanah, R A Tirtana [2] The purpose of this research is to find out the effectiveness of using e-commerce in ornamental plant business, and what benefits can be made for ornamental plant farmers. This research used a descriptive method for a complete review of the situation that occurred at the time of the study, the results of this study to find out how much results can be obtained if using e-commerce in the world of ornamental plant business, and what benefits can be made by ornamental plant farmers, this research is conducted by discussing how orders, sales and payments transactions are made using e-commerce, the results of this research that e-commerce can improve sales efficiency for ornamental plant farmers, of course e-commerce technology can affect the level of ornamental plant sales

Design & Implementation of Web Based Application for Plant Nursery Dr.Mahendra Makesar, Yogendra Nikam, Pratik Dudhkawde, Shubham Kathane, Suraj Kawadkar[3] As getting the information from various research papers and other sources we analysis that many peoples want to buy a plants and they directly concerned to nursery but sometimes people doesn't know specific information about particular plant items as well seller is not technically skilled. Customer doesn't compare plants pricing with different shopkeeper as well as in nursery there is no facility for online payment only cash may consumed. So, in this case e-nursery is platform where customer can compare plants pricing and make online payment easily. Customer service is extremely important. We want each customer to have a pleasant shopping experience, and it is the intention of our staff to answer questions with expertise and to offer advice when we feel it is needed. Retain customers to generate

repeat purchases and make referrals. Continue to expand daily sales by adding to the variety of plants we sell. Communicate with our customers through creative advertising."

Application of WebBased E-Commerce Applications in Ornamental Plants - Suprapto, Alfania Lailatul Rizky, Wahyu Dwi Mulyono, Setya Chendro Wibawa [4] During the pandemic, various cities in Indonesia experienced an increasing trend of growing ornamental plants in various circles, and not a few were using ornamental plants to increase their income, but difficulties in reaching market segmentation caused the ornamental plant business to develop a little slower. E-Commerce is one of the business media to expand marketing reach and innovate in the business world using adequate technology. The aims of this study are to utilize a web-based E-Commerce application as a medium to expand the marketing of ornamental plant businesses, and to determine the effect of ecommerce on products and consumer trust. The method of developing an web-based E-Commerce application using ADDIE consists of Analysis, Design, Development, Implementation, Evaluation. This research produces an web-based E-Commerce application which contains various kinds of ornamental plants, and ornamental plant shelves, and a survey of the effectiveness of the web-based E-Commerce application. E-Commerce media is very useful for the founders of ornamental plant businesses who make the business grow more rapidly.

Study & Development of E-Commerce Website by Aaftab Aalam, Shivansh Mishra, Satyam Sharma, Richa Gupta [5] This research paper provides insight into the development of e-commerce of website. While understanding the nitty gritties of its different aspects with special emphasis on B2C e-commerce. Which has shown tremendous growth in the recent years because of increased consumer awareness, investor trust and technological proliferation. The study has also produced certain trends and factors which shall propel further growth within the e-commerce market in India.

A Literature Review of the Trend of Electronic Commerce in Bangladesh Perspective By Nazmun Nessa Moon , Shaheena Sultana, Fernaz Narin Nur & Mohd Saifuzzaman [6] E-Commerce will be the leader with popularity and prosperity in e-trade sector. From above discussion we can come to a view that e-Commerce has changed the business strategy and making life easier for the people of Bangladesh as well as other countries. Developing countries like Bangladesh, we faced some problem in this sector but we think we can overcome very strategically in future. In this sector Government role is also very significant for the growth and implementation.

E-commerce using Html, Css, Java, Php, Mysql, by Anshu Raj [7] This project aims to supply an internet platform to buy or sell a goods. The user can select variety of product and may find the best product which fulfil all their needs.

CHAPTER 3

SYSTEM DESIGN

This module consists system design of the project with preliminary design such as overall Architecture diagram and process flow diagram which tells about the modules integration in the project.

3.1 OVERALL ARCHITECTURE

The proposed work of the system architecture is shown in Figure 3.1.

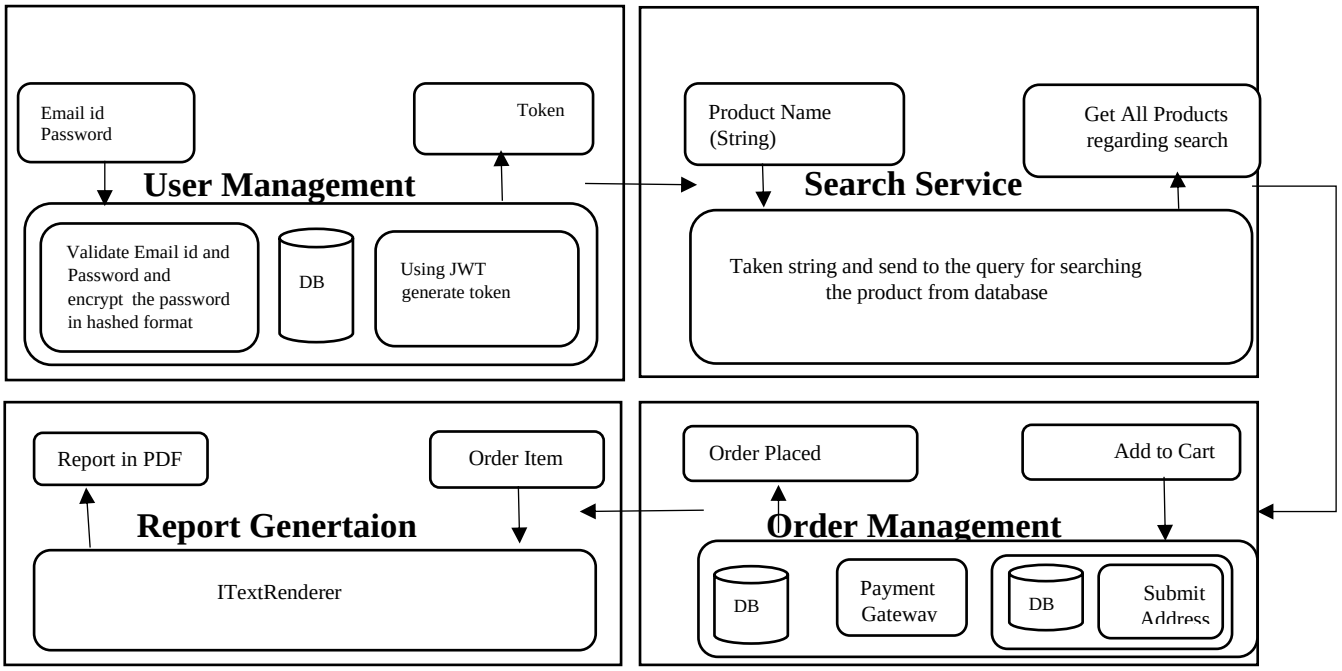


Fig 3.1 System Architecture

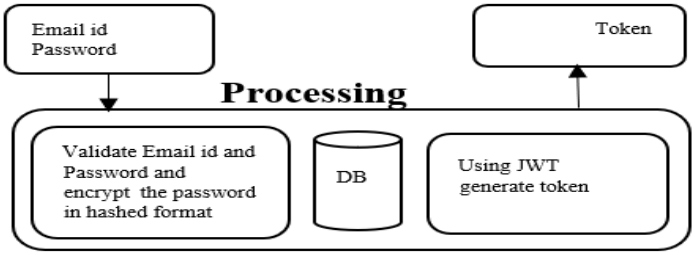
3.2 MODULE DESCRIPTION

3.2.1 USER MANAGEMENT

Input: Email Id and Password is taken as input in string format.

Process: Check Email format and password and also check is this available in database or not if fulfil the condition then decrypt the password and generate token using JWT when login is successful.

Output: Get token after login successfully.

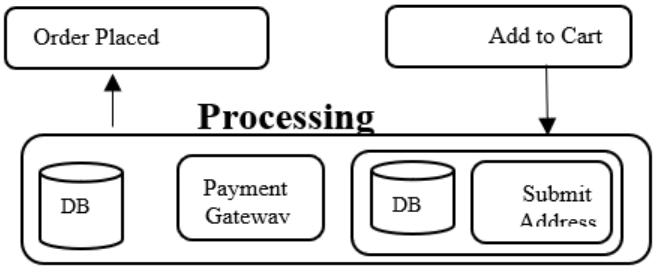


3.2.2 ORDER MANAGEMENT

Input: User Token and product details as a string

Process: Placed the order by their respective userid/emailid and store them into temp_order table after that the web page redirect to payment gateway if payment successful then it store into the order db.

Output: Placed an order successfully.

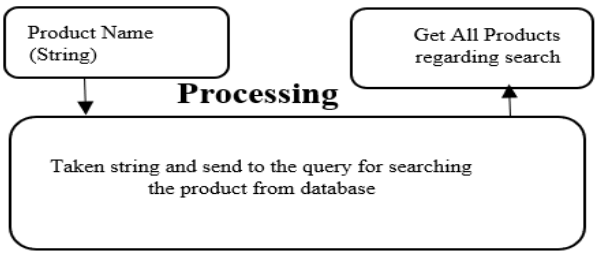


3.3.3 SEARCH SERVICE

Input: Take input as a string from search box

Process: Search from product table by passing the query

Output: Get result of the search product

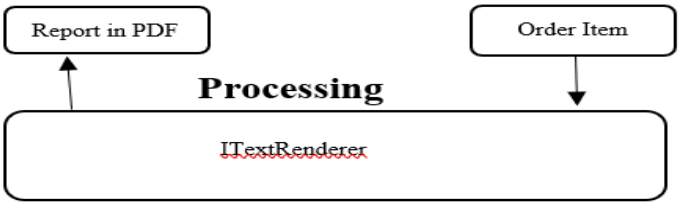


3.3.4 GENERATE REPORT

Input: Input as a String of order details

Process: Convert PDF Using ITextRenderer set all the order details in a string. CreatePDF is a method of ITextRender that helps to create pdf files.

Output: Get Report in PDF format.



CHAPTER 4
DETAILED SYSTEM DESIGN

This section explains in detail the various modules in the system. Each module includes the input for the module, process flow for the module and output for the module in detail.

4.1 USER MANAGEMENT

Algorithm to sign in and signup the account
User can create an account or login with account.

4.1.1 Signup

1: Start
2: Check email format from regex pattern(abc@xyz.com).
3: Check password format regex pattern(^\S*(?=\S{6,})(?=\S*\d)(?=\S*[A-Z])(?=\S*[a-z])(?=\S*[!@#$%^&*?])\S*$)
4: BCrypt the password and generate in hashed format.
5: Check email from database if found then show warning.
6: If not found then send verification key to mail.
7: After verified account created

4.1.2 Signin

1: Start
2: Check email format from regex pattern(abc@xyz.com).
3: Check password format regex pattern(^\S*(?=\S{6,})(?=\S*\d)(?=\S*[A-Z])(?=\S*[a-z])(?=\S*[!@#$%^&*?])\S*$)
4: Search from database taking email id and password.
5: If found then login successfully and generate token.
6: If not found then show option of signup

OUTPUT: Got token after login successfully.

4.2 ORDER MANAGEMENT

Algorithm for placing the order
User placed the order from web application

1: Start
2: Sign in with user account
3: Generate token using JWT
4: Getting the token then access the product
5: View the product
6: Add to the cart product
7: From cart placed the order using stripe payment gateway.
8: If payment not done then order is not placed
9: If payment is done then the order is successfully placed.
10. The user got mail regarding their order.

OUTPUT: Successfully Placed the order.

4.3 SEARCH SERVICE

Algorithm for search product

User search the product from web application.

1: Start
2: Input the product name on search bar
3: The search bar transfers the all input into string.
4: After that the string search in product table using query
5: If found then show the result otherwise showing blank page.

OUTPUT: View search product on web.

4.4 REPORT GENERATION

Algorithm for report generation

When order is placed there is option for downloading the order details in pdf format.

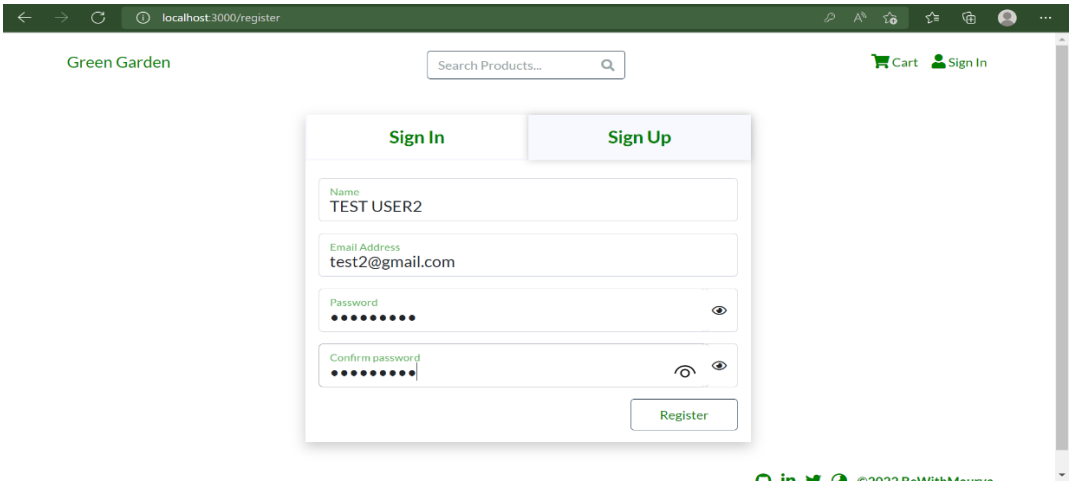
1: Start
2: import dev.simplesolution.pdf.service.PdfGenerateService
3: import org.xhtmlrenderer.pdf.ITextRenderer;
4: In Order section, Click on download pdf.
4: Using ITextRenderer set all the order details in a string.
5: CreatePDF is a method of ITextRender that helps to create pdf files.
6. If Pdf is created then finishPDF method helps to generate the PDF report.

OUTPUT: Generate report file of order

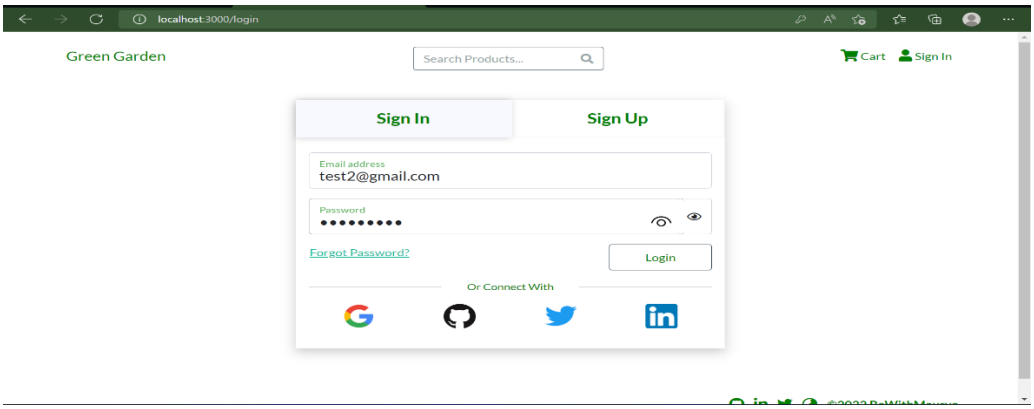
CHAPTER 5
SCREEN SNAPSHOT

5.1 User Management

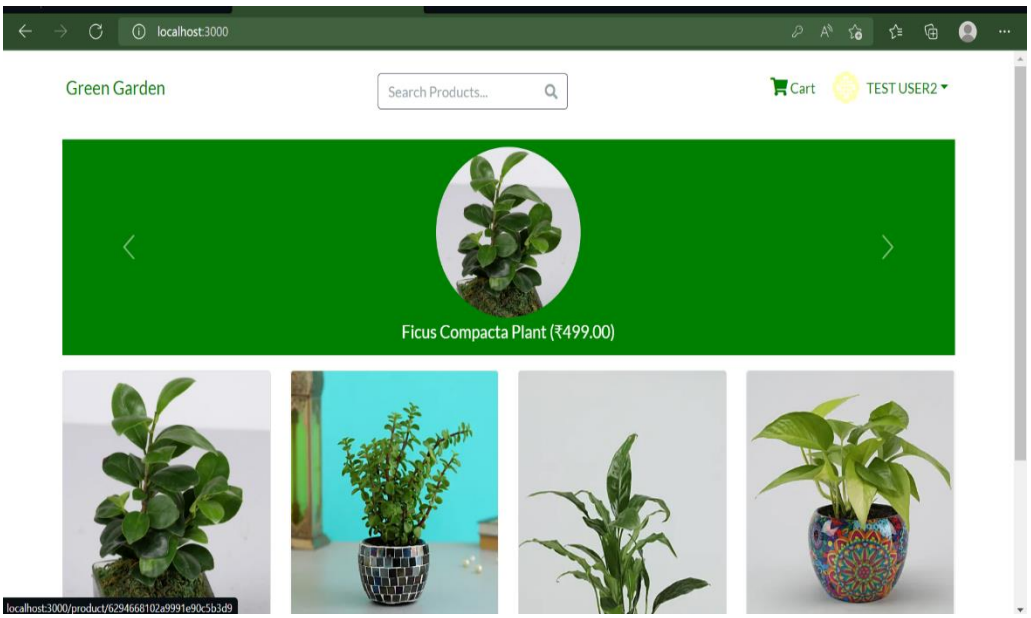
5.1.1 Create Account



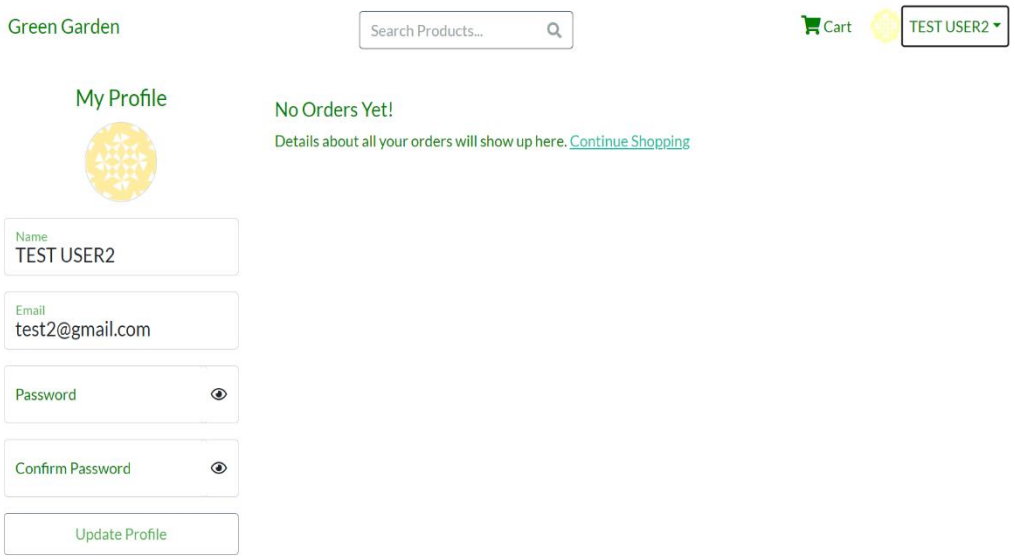
5.1.2 Account Login



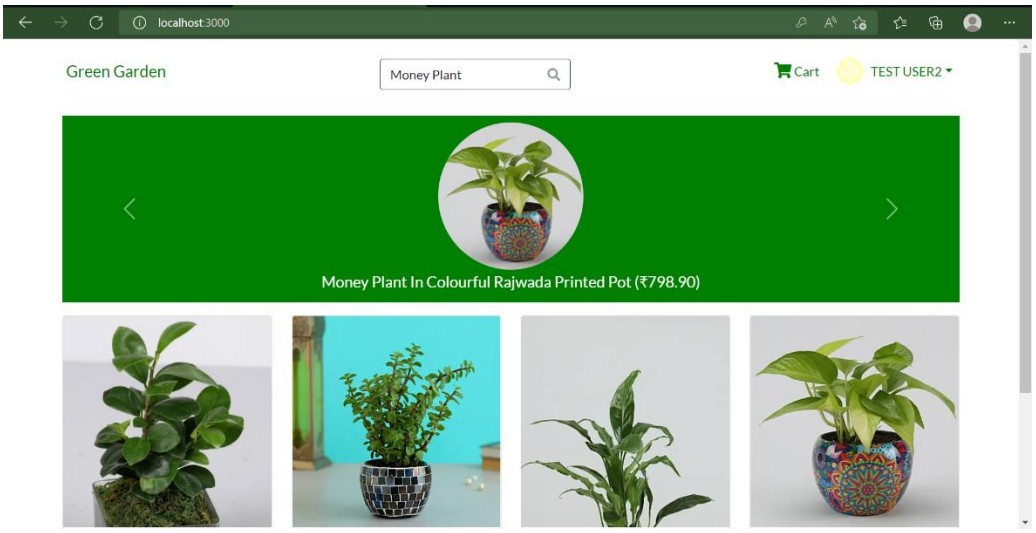
5.2.3 View Product

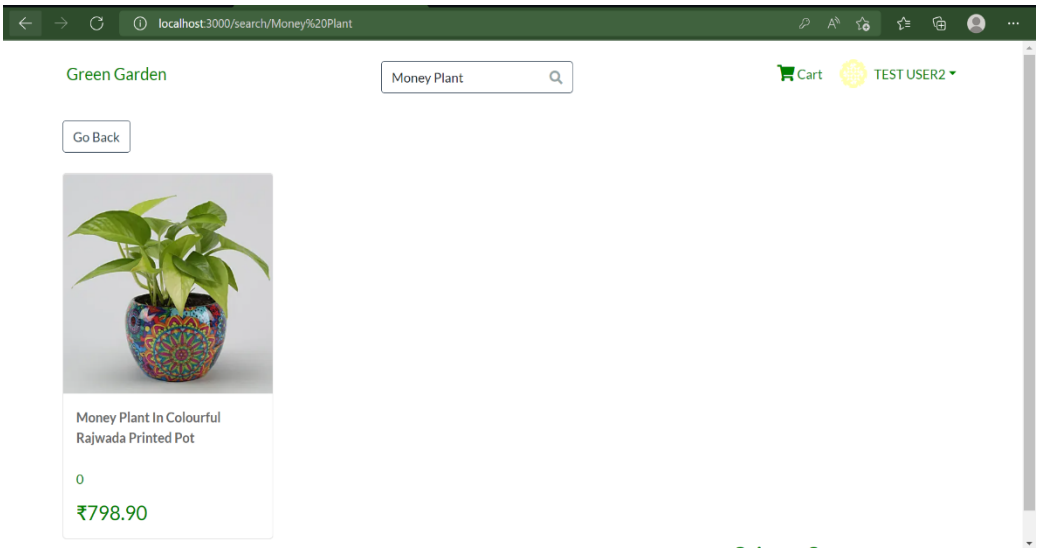


5.1.4 View Profile



5.2 Search Service

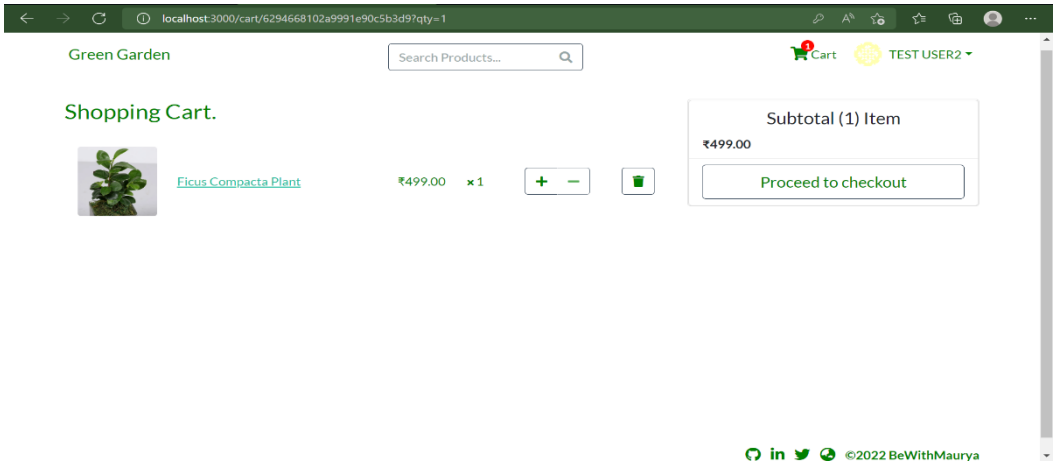




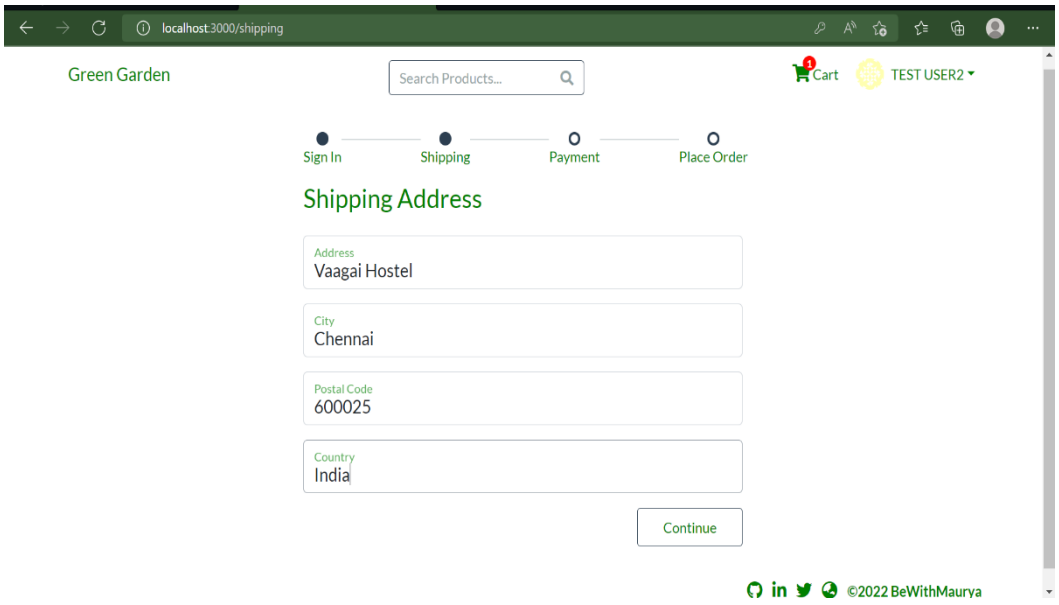
5.3 Order Management

5.3.1 Product View

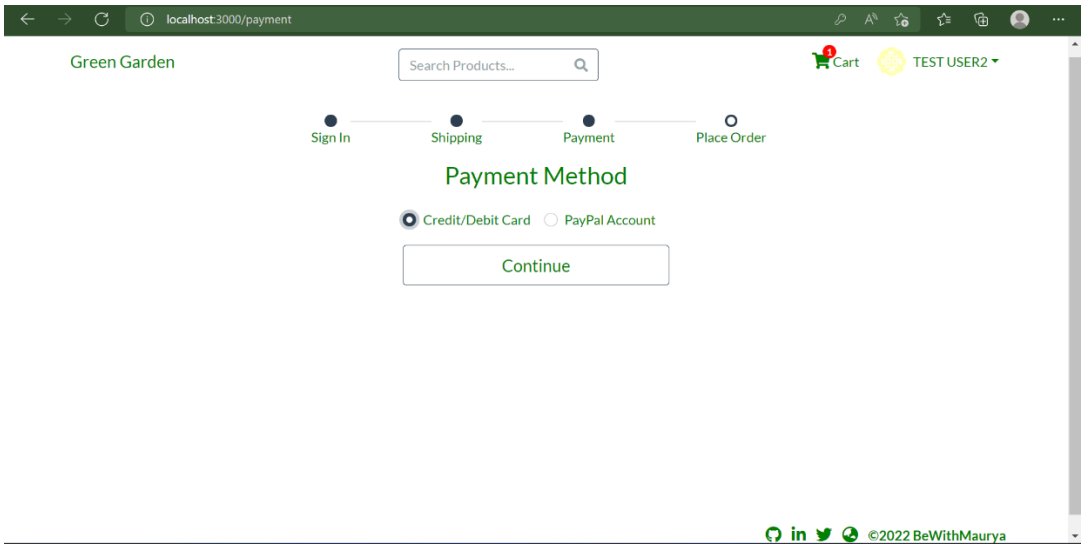
5.3.2 Cart Item



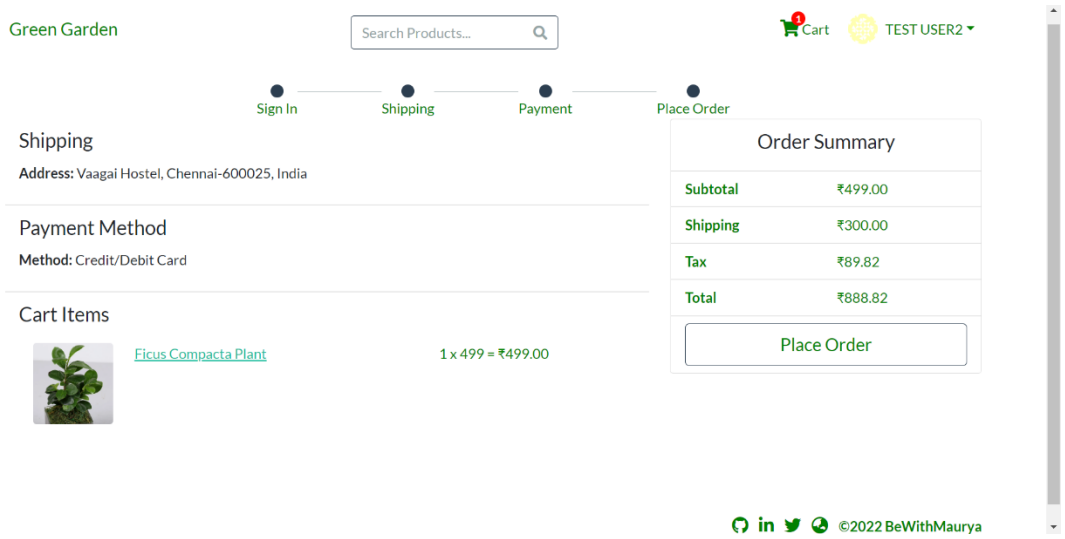
5.3.3 Address Option



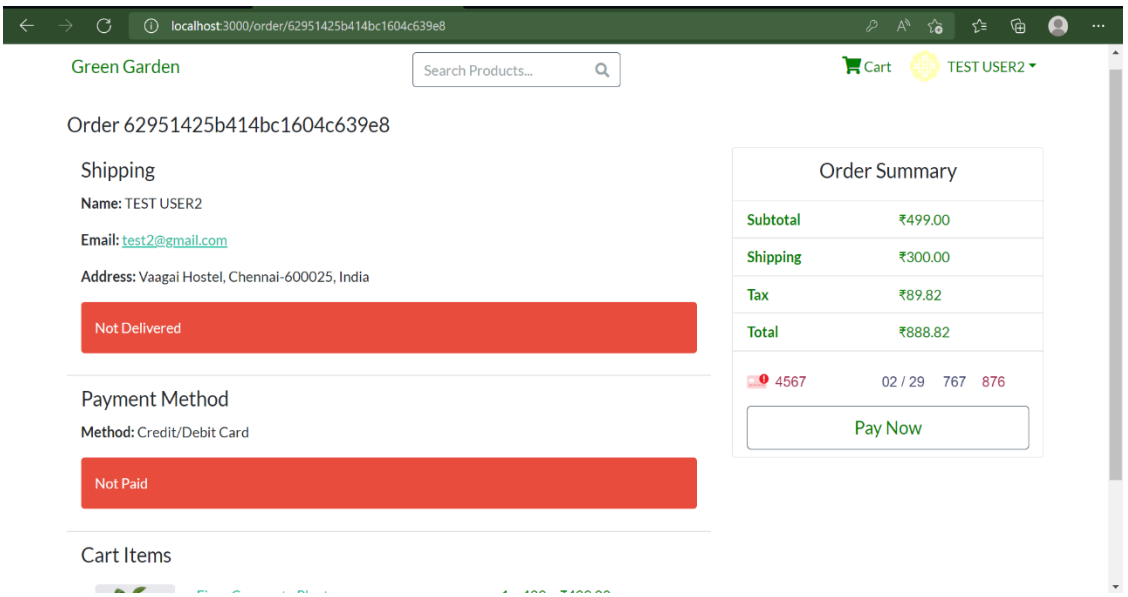
5.3.4 Payment Option



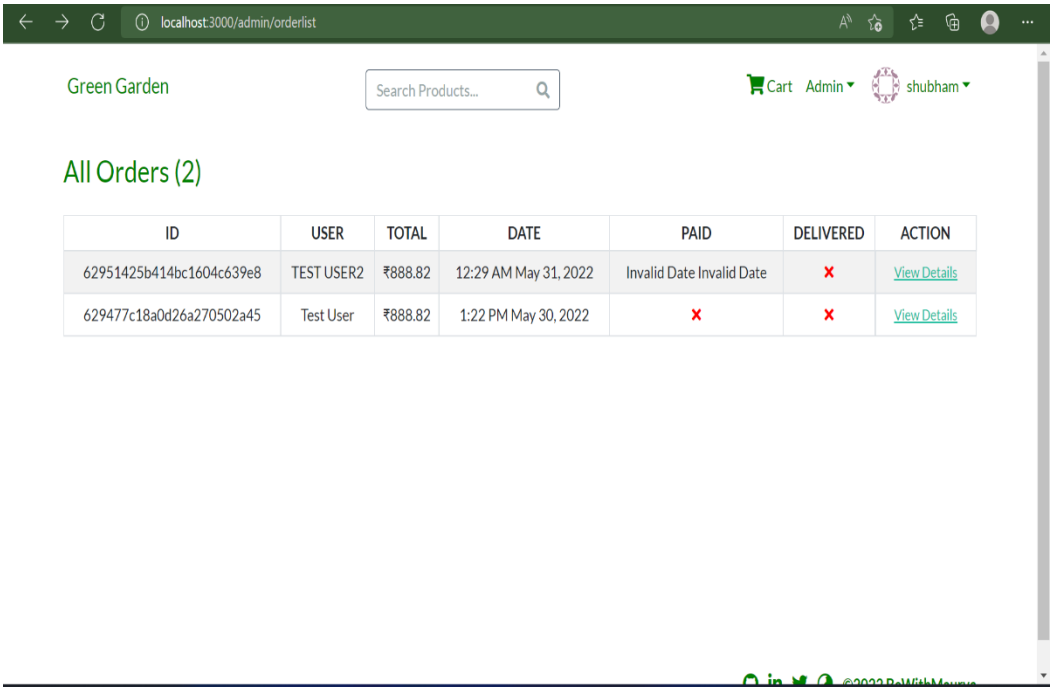
5.3.5 Order Summary



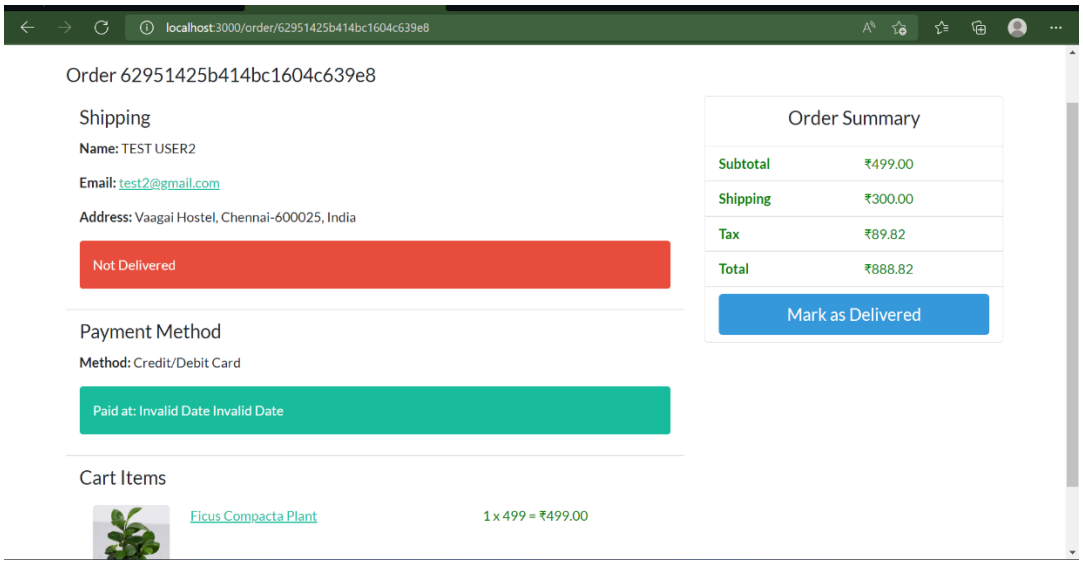
5.3.6 Card Details



5.3.7 Showing Order In Admin Side



5.3.8 Order Details



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