Project Report

On

GO GREEN

Submitted in partial fulfillment for the award of

Diploma in Advance Computing(E-DAC) from

C-DAC, ACTS (Pune)

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ACKNOWLEDGEMENT

This project "**GO GREEN**" was a great learning experience for us and we are submitting this work to Advanced Computing Training School (CDAC ACTS).
We are very glad to mention the name of *Mr. Shakir H* for his valuable guidance to work on this project. His guidance and support helped me to overcome various obstacles and intricacies during the course of project work.

We are highly grateful to Ms. Risha P.R. (Manager (ACTS training Centre), C-DAC, for her guidance and support whenever necessary while doing this course Diploma in *Advanced Computing (E-DAC)* through C-DAC ACTS, Pune.

Our heartfelt thanks goes to *Ms. Shilpi Shalini* (Course Coordinator, E-*DAC*) who gave all the required support and kind coordination to provide all the necessities and extra hours to complete the project and throughout the course up to the last day here in C-DAC ACTS, Pune.

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1. Introduction of Project:

We have created an e-Commerce website where the user can buy different types of plants and seeds.
The platform displays and provides various numbers of plants and seeds to purchase for end users. User Interface, developed in React uses user email to authenticate and data is imported using REST. UI makes secure calls to Spring Boot. In the backend, JAVA is used to fetch and manipulate the data and used MySQL as database.

The Go Green is an application that allows users to buy various types of plants and seeds. Go Green provides facilities for adding, deleting, updating products and also user can sort the product list on price based criteria. GO Green also allows users to see their order details in my order section. It can be used as the fully developed e-commerce website.

For all this a lot of API's is used for the ease of user. API allows two applications to talk to each other and then the application interprets that data and presents the user with the information the user wanted in a readable way.
For the login of users into this website we use the user email authentication, which allows users to sign up with their email. This platform is based on REST services and it tends to independency of all services. This platform is rapid and frequent due to this technique.

2. Product Overview and Summary

2.1 Purpose:

We need an e-Commerce website where user can buy different types of plants and seeds. There are very few websites which sell plants and seeds so that's why we have created this website so that customers can get more platforms to purchase the plants. We are providing various varieties of plants to the customer and also providing user friendly UI to the customer which will help in maintaining the relationship of customer with the company.

2.2 Scope:

GO GREEN is a platform where customer can explore the varieties of plants and can buy any of them according to their preferences.

2.3 Overview:

Section 3.0, the Overall Description, provides an overview of the components and the relationship between them. Section 4.0 provides the Specific Requirements of the product. In the subsection (4.1) and (4.2) of which the various functional requirements and various interface respectively are discussed. Section 5.0 describes Database Design details.

2.4 Feasibility Study

Feasibility is determination of whether a projects worth doing or not. Before actually recommending the new system it is important to investigate if it is feasible to develop the new system.

Before developing and implementing a system we have sure that our system is feasible in the following ways:

1. Technical Feasibility.
2. Operational Feasibility.

- **Technical Feasibility:**

In the type of feasibility study, the system analyst has to check whether it is possible or not to develop the requested system with availability of manpower, software, hardware, etc. The system which we run in Linux as well as windows platform and hence are suitable for the end-user. The system is technically feasible because it does not require too many resources and runs with the browser. A proof of concept was implemented to verify the technical feasibility to retrieve data from various APIs.

- **Operational Feasibility:**

In this type of feasibility study the operation implementation of the system is considered. Checking is done regarding whether it is feasible for the users to use the application. Thus the proposed system is said to be operationally feasible only of the end users are able to understand the system clearly and correctly and can use the system with ease and with the minimum training.

3. Overall Description:

3.1 Product Features

The project's aim is to provide an e-Commerce website for plants which is containing java (platformindependent), React, API's for user

3.2 Technology Used

BACK END
Spring Boot Hibernate.
MYSQL for storage of data.

FRONT END
React
CSS
REDUX

Platform:
Web Development: J2EE Spring Boot, React, MySQL

J2EE Spring Boot

Spring Boot has been built for Rapid Application Development. The goal of Spring Boot is to provide a way to create Java applications quickly and simply, through an embedded server. By default, it used an embedded version of Tomcat and hence eliminating the need of Java EE containers.
It is a framework to ease the bootstrapping and development of new Spring Applications. Bootstrapping with defaults included in the configuration/ jar-dependencies. Easy to create standalone applications with embedded Tomcat/Jetty/Undertow. It provides defaults for code and annotation configuration to quick start new spring projects within no time. Plenty of Spring Boot Starter to quickly get up and running.
No code generation and no requirement for XML configuration. It reduces lots of development time and increases productivity.

React

React is a JavaScript library for building user interfaces. It has transformed the way we think about front-end development. React.js has clasped the engagement of the open-source community. And its demand is irreversible in the coming future. It is here to stay.

Improved performance: React uses Virtual DOM, thereby creating web applications faster. Virtual DOM compares the components' previous states and updates only the items in the Real DOM that were changed, instead of updating all of the components again, as conventional web applications do.

MySQL

MySQL is an open-source relational database management system (RDBMS).A list of commonly used MySQL queries to create database, use database, create table, insert record, update record, delete record, select record, truncate table and drop table etc. MySQL is a relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications.
The most common use for MySQL, however, is for the purpose of a web database. It can be used to store anything from a single record of information to an entire inventory of available products for an online store. In association with a scripting language such as PHP or Perl (both offered on our hosting accounts) it is possible to create websites which will interact in real-time with a MySQL database to rapidly display categorized and searchable information to a website user.

3.2 User Classes

There is two type of user which can access this website. One is customer and the second one is ADMIN which will manage the users, products and orders.

3.3 General Constraints

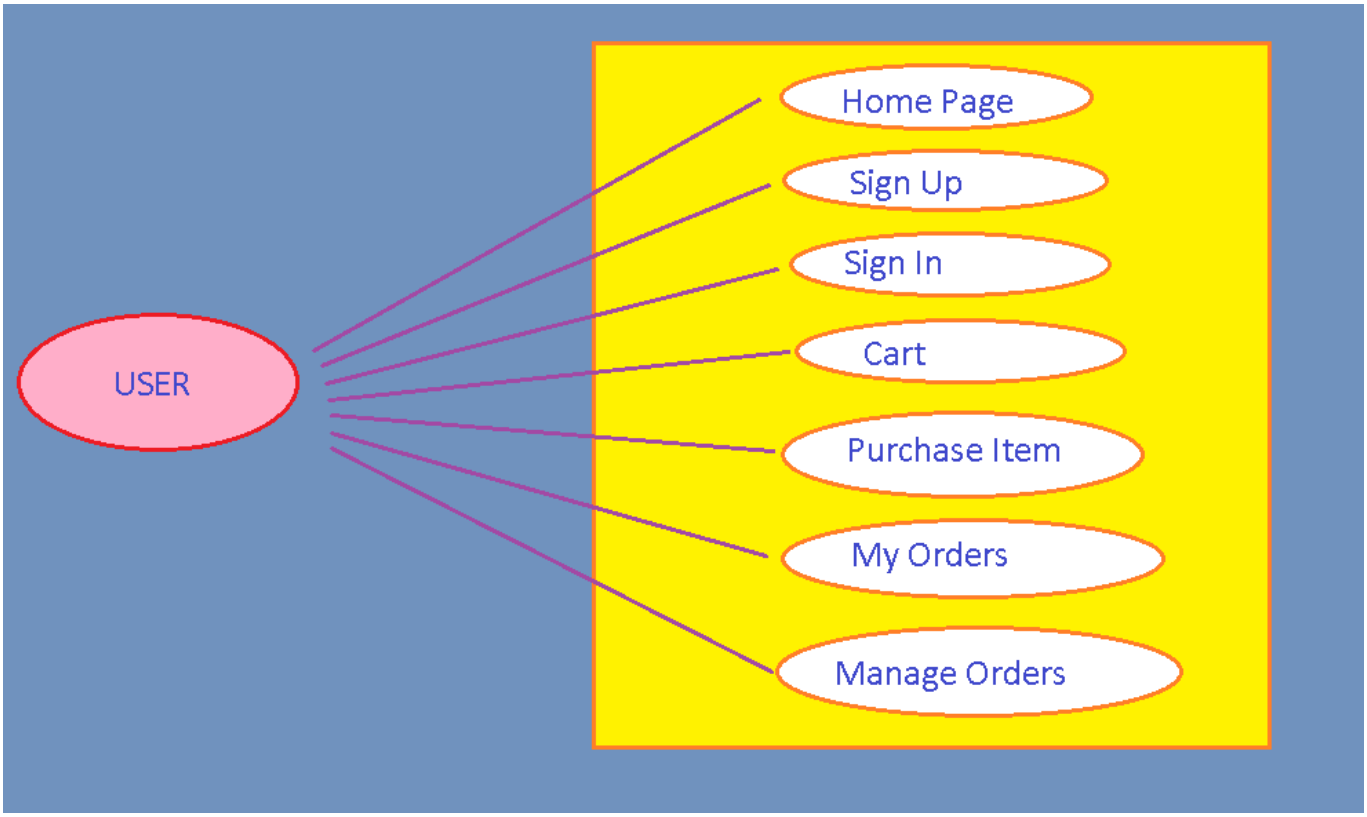
Users should have an email and have a browser

4. REQUIREMENTS

4.1 FUNCTIONAL REQUIREMENTS

4.1.1 Complete System:

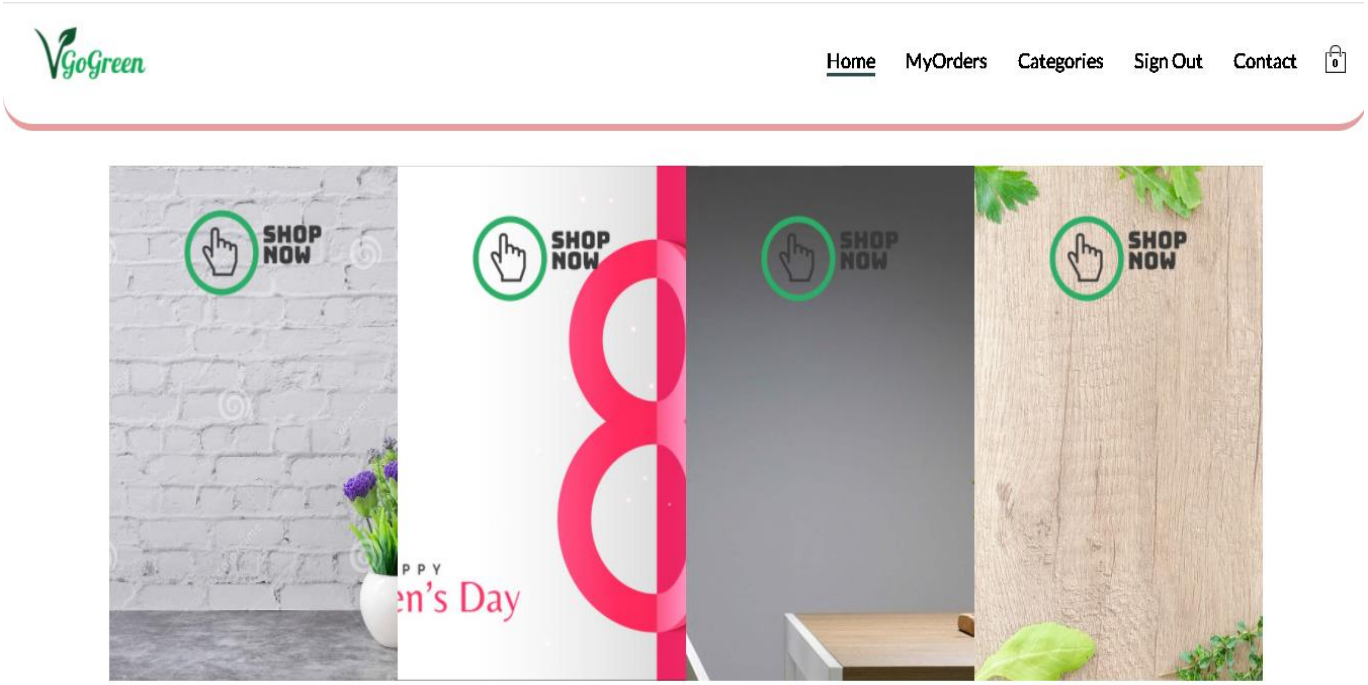
USER



4.1 USER INTERFACE REQUIREMENTS

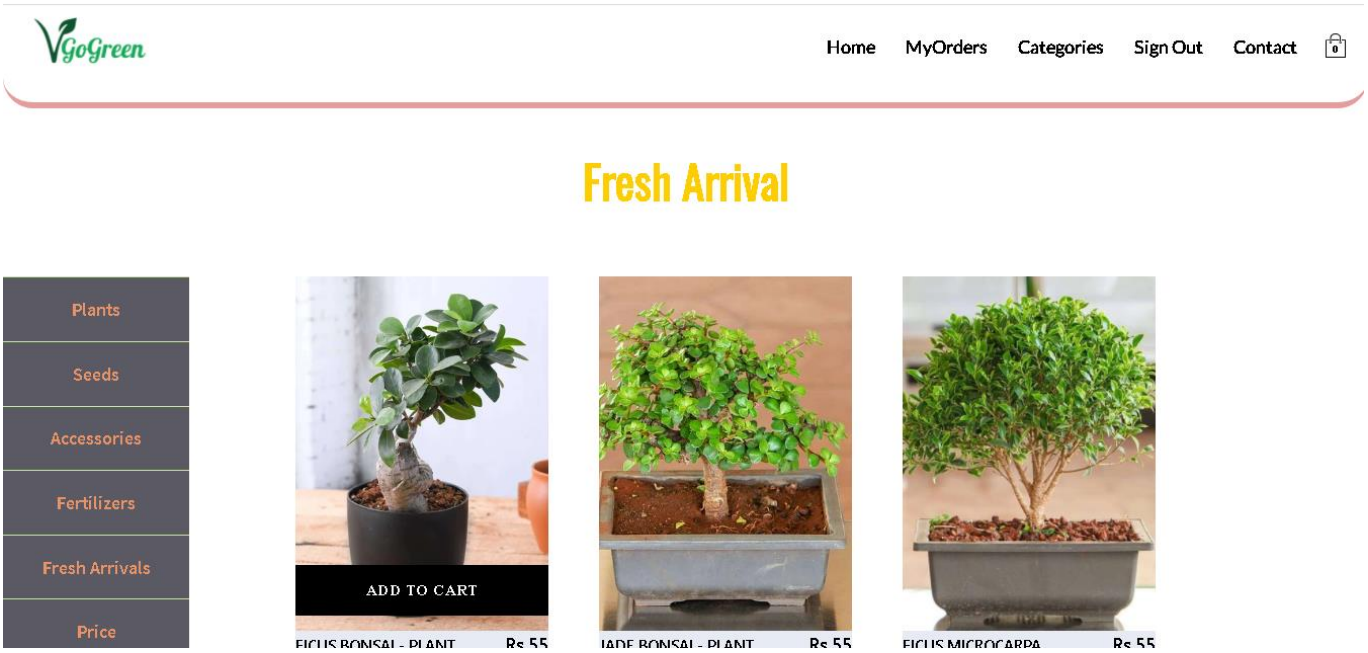
Home MyOrders Categories Sign Out Contact

Home Page

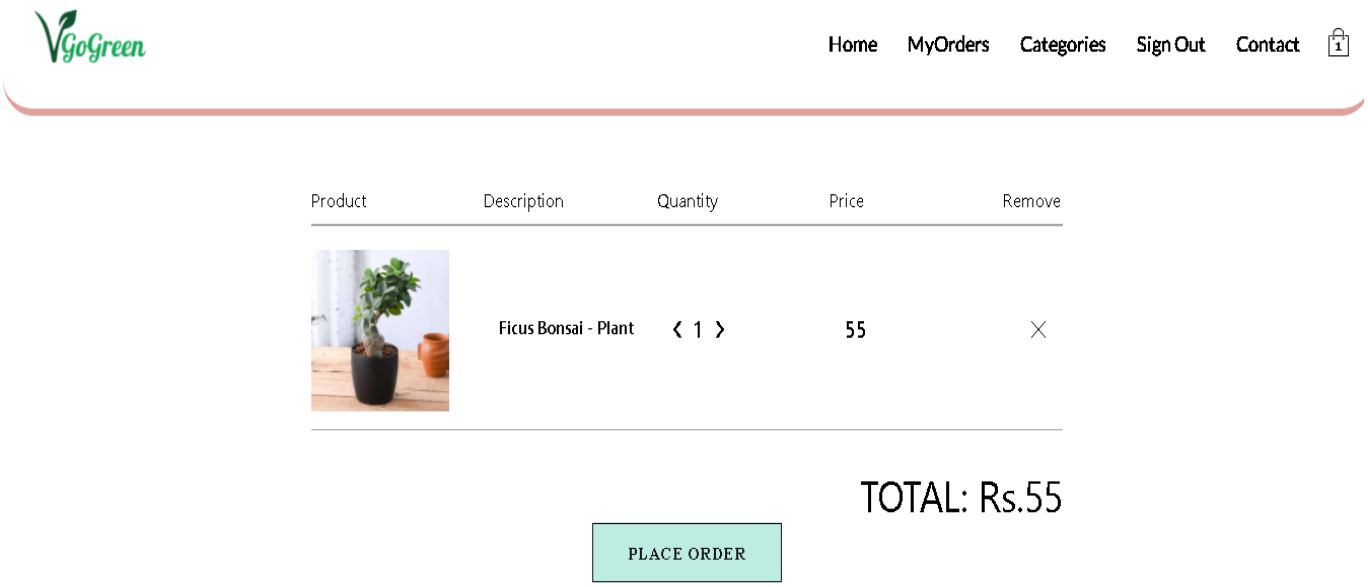


Fresh Arrivals

Product Page:

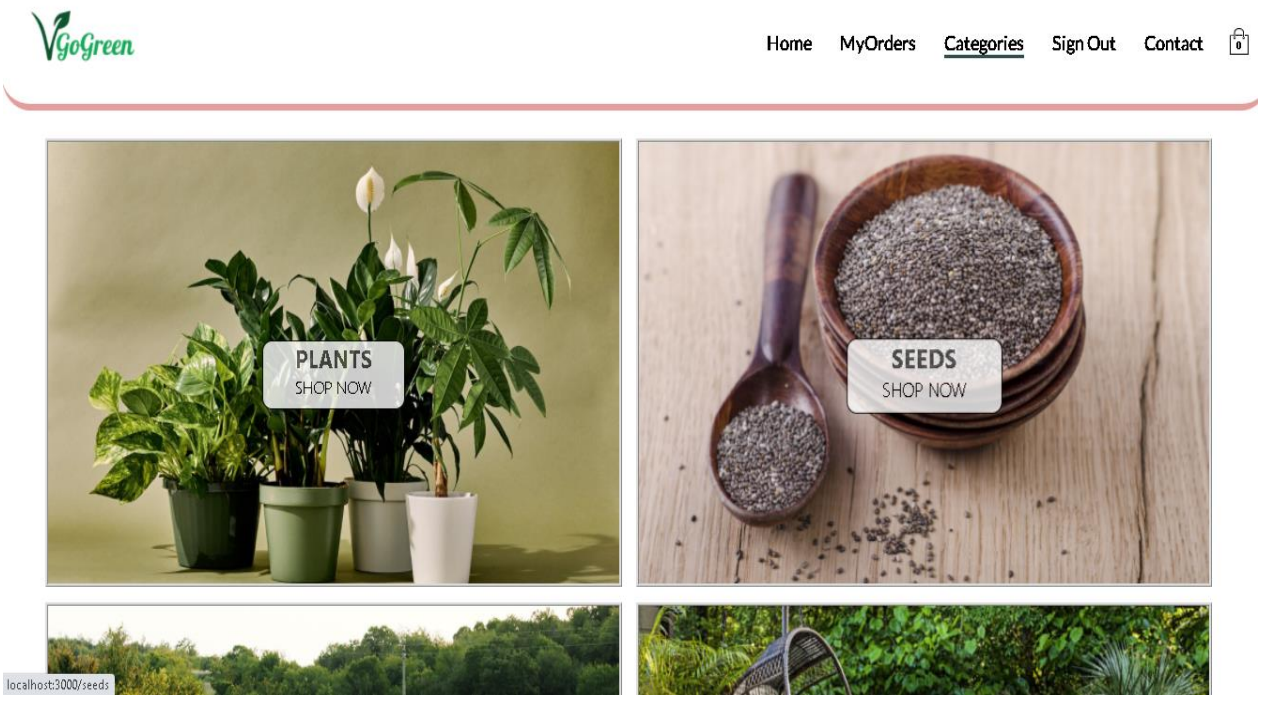


CHECKOUT PAGE

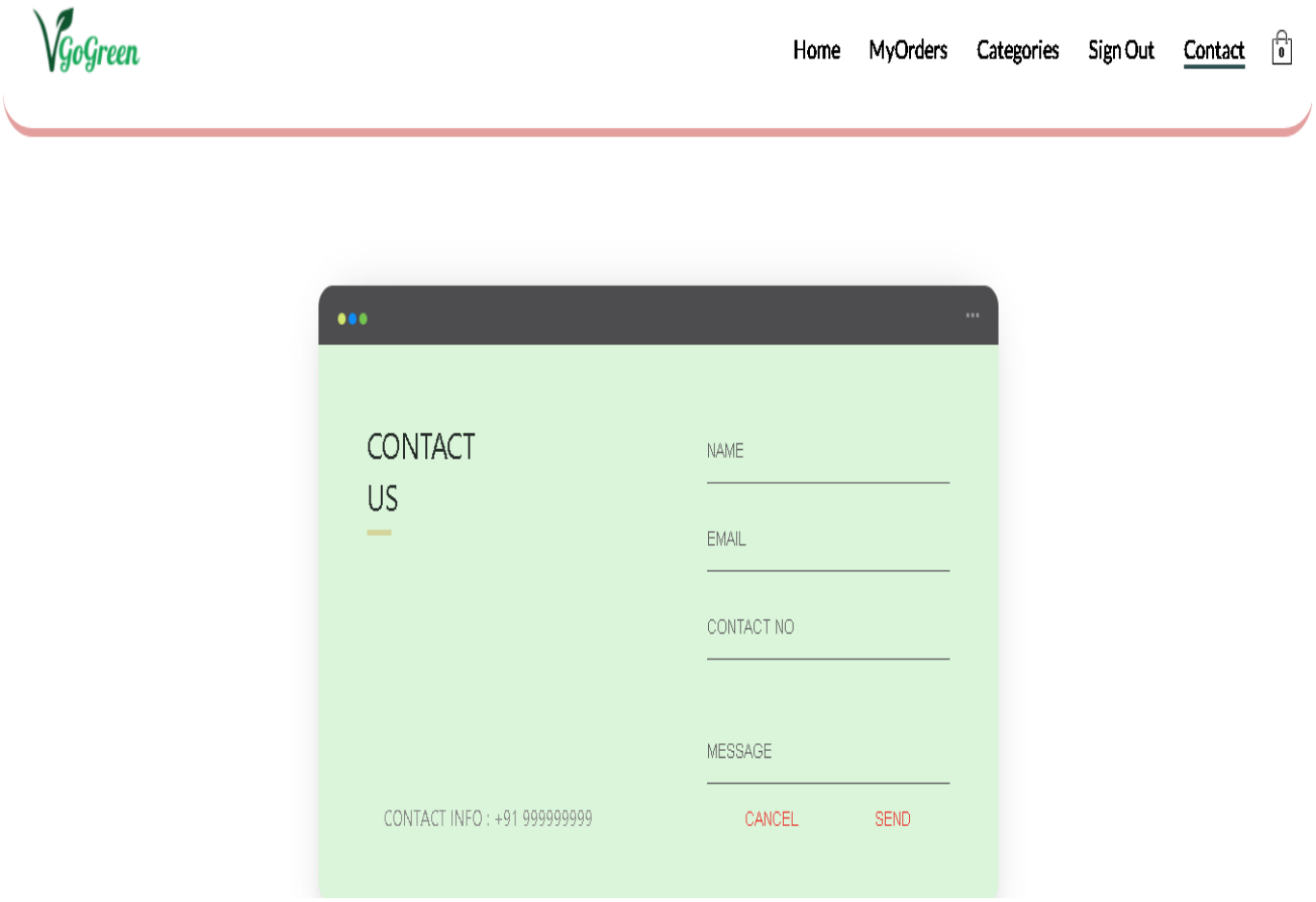


MY ORDERS PAGE

Categories Page



CONTACT US PAGE



GO GREEN

Home Categories Sign In Contact 0

I ALREADY HAVE AN ACCOUNT

Sign in with your email and password

Email

Password

SIGN IN

I DO NOT HAVE AN ACCOUNT

Sign up with your email and password

Name

Email

Password

Confirm Password

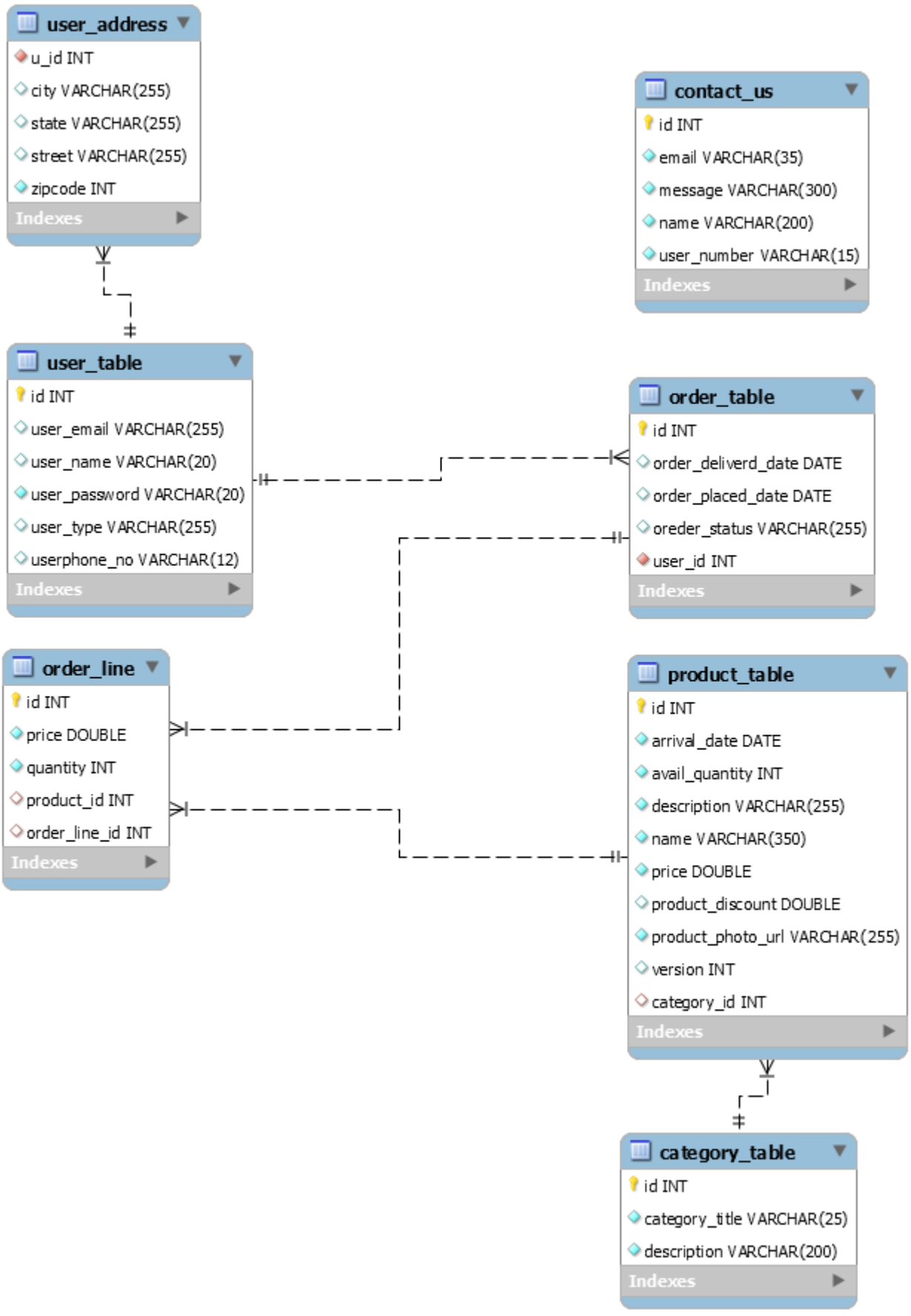
Phone Number

City

5.2 Database Design

The following table structures depict the database design.

ER Diagram


user_address
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city VARCHAR(255)
state VARCHAR(255)
street VARCHAR(255)
zipcode INT
Indexes
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id INT
email VARCHAR(35)
message VARCHAR(300)
name VARCHAR(200)
user_number VARCHAR(15)
Indexes
user_table
id INT
user_email VARCHAR(255)
user_name VARCHAR(20)
user_password VARCHAR(20)
user_type VARCHAR(255)
userphone_no VARCHAR(12)
Indexes
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order_placed_date DATE
oreder_status VARCHAR(255)
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Indexes
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price DOUBLE
quantity INT
product_id INT
order_line_id INT
Indexes
product_table
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arrival_date DATE
avail_quantity INT
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name VARCHAR(350)
price DOUBLE
product_discount DOUBLE
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Indexes
category_table
id INT
category_title VARCHAR(25)
description VARCHAR(200)
Indexes

7.Testing:

The report of the testing is given here under.

Test Cases

Sr. No	Test Case Title	Description	Expected Outcome	Error Message	Result
1	Login Page	User should see loginpage when user will enter email and password.	After signing in user to be directed to home page	Invalid Login	Passed
2	Home page Displayed	Home page display for every successful log in.	Home Page Displayed	No Error	Passed
3	Categories Page	Users can see different categories of the products available.	Category to be selected.	No Error	Passed
4	My Orders Page	Here, user can see his all its order and can also cancel the order.	User can manage is order.	No Error	Passed
5	Contact Us	User can contact to the company.	User can write his problem to the company.	No Error	Passed
6	Checkout Page	User can review its product details.	After clicking on checkout user will place the order.	No Error	Passed
7	Sign Up	Should not allow any control to be empty if not null	If validated Allow to go to home page	Validation Error	Passed
8	Cart	User should be able to see its product details.	All product added to the cart be seen.	No error	Passed
9	Sign Out	User should be able to logout from the website	User will logout and will be redirected to the Sign In page.	No Error	Passed

8. Project Management Methodology:

Scrum Agile Methodology was used.

9. FUTURE SCOPE :

1. We will provide payment gateway to the user so that he can also pay through online mode.
2. We will be adding more vendors to the website so that it will give more options to the customer to select their favorite products.
3. We will also give the order tracking functionality to the user.