Online Vegetable and Fruit Selling System

A project submitted to

UKA TARSADIA UNIVERSITY

in partial fulfilment of the requirements for the degree of

Bachelor of Science

in

Information Technology

for

5 Years Integrated M.Sc.(IT)

By

Guided by

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CERTIFICATE

This is to certify that **Yash Desai(202006100110086) Utsav Vasani** (202006100110113) has submitted project entitled **Online** fruit and vegetable selling system as the partial fulfilment for the award of the degree of Bachelor of Science in Information Technology for 5 Years Integrated M.Sc.(IT) in 2020 – 2021.

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Chapter 1

Introduction

1.1 Problem Definition

People are facing many problems with buying fresh vegetables and fruit, such as when it's raining outside. They also have to visit different shops to buy different kinds of vegetables and fruit. The lack of a convenient, reliable, and efficient way for customers to purchase fresh produce online results in missed sales opportunities for farmers and a less than satisfactory customer experience. Many small farmers have limited resources to market and sell their products and often have to rely on intermediaries to reach the customer, which can lead to increased costs and reduced profits. Additionally, traditional channels for buying fruits and vegetables (such as local grocery stores or farmers' markets) can have limited selection and availability, which can make it difficult for customers to find the products they are looking for. The problem is to design and develop a cost-effective, secure and user-friendly ecommerce platform that enables farmers to sell their fresh fruits and vegetables directly to customers online, with an easy-to-use interface and a wide variety of products available.

1.2 Project objective

To design and develop a secure, user-friendly, and cost-effective e-commerce platform that enables farmers to sell their fresh fruits and vegetables directly to customers online. The platform should improve the customer experience by providing detailed information about the products. It should also provide farmers with better inventory management, traceability, and increased sales opportunities

1.3 Product Scope:

The Online Vegetable & fruit Delivery Management System is available only for varacha area and Katargam area of Surat city. In this system, the payment is done though online payment mode. System will be used only by the authorized Admin and customers

1.4 Initial requirement design

Title of	project:	e-fruit and vegetable shop
Stakeholder involved in capturing Requirements:		Shop Admin
Techniques used for requirements Capturing:		Interviewing, brainstorming, questionaries
Name o designar	f the person along with The tion:	-
Date:		Jan, 2023
User of	Jser of the system: Admin, Customer	
Version: 1.0		1.0
Consoli	idated list of initial requirements:	<u>I</u>
1	The user shall be able to register and login as well as do authentication via mail while registering in system except visitor.	
2	The system users shall be able to reset password (Forgot password).	
3	Admin shall be able to manage products category wise.	
4	Admin shall be able to manage stock of product.	
5	The customer shall be able to view and search (filter) the product.	
6	The system shall be able provide the availability of a particular product to the customer.	
7	Customer shall be able to add Products into cart and Wishlist.	

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8	The customer shall be able to register and login into the system before adding Product into the cart .	
9	The customer shall be able to manage cart by adding the Product(s) in the cart, by updating the quantity.	
10	The customer shall be able to place order after adding Products into cart.	
11	customer shall be able to view and apply offers on order.	
12	The customer shall not be able to cancel order after palace order.	
13	The customer shall be able to make payment using one of the online payment gateways.	
14	The customer shall be able to give feedback for the order.	
15	The customer shall be able to view order history.	
16	Admin shall be able to view customer order details.	
17	The system users shall be able to update their profile including their password.	
18	Admin shall be able to add other admin.	
19	Admin shall be able to manage offers.	
20	Admin shall be able to view all feedback which given by customer.	
21	The system should be able to generate reports like:	
	Sales report	
	Customer report	

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Chapter 2Overall Description

2.1 Product perspective/Environment Description

2.1.1 Hardware Requirements

• Processor: Intel(R) Core (TM) i3 or more

• RAM: 512MB or more

• Hard Disk: 50MB or more

• Input Device: PC/Laptop/Mobile/Tablet

• Output Device: Printer/PC/Screen

• Communication Interface: LAN cable for printer

2.1.2 Software Requirements

• Operating System: Microsoft Windows Platform, Linux Platforms, MAC OS

• Front-End: Html, CSS, JavaScript, Bootstrap

• Back-End: ASP.NET, JavaScript, MySQL Server

• Tools Used: XAMPP(Apache), VS Code

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Chapter 3

Software Specific Requirements

3.1 Functional Requirement:

Functional requirements define the fundamental action that system must perform.

Module 1: Manage User Login

RN	Description	Comments
FR1	Admin and Customer shall be do registration into the system	Registration page
FR2	Admin and Customer will be authenticated with their Username and password to login into the system.	Login Page
FR3	Enable a registered user to update password. And also, if user forgets password, then OTP is sent through mail for user's verification.	Login Page ChangePassword Page ForgotPassword Page

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Module 2: Manage Product

RN	Description	Comments
FR1	This module will be managed by Admin . The Admin will be able to manage many other modules like: Manage Product description Manage Product Images Manage Product price	Product_Add_View_ Update_Search Page
FR 2	The system will assign a unique id (Product id) to each Product. Whenever any new product arrives, the Admin will be allow to record following details of the product like Product name with its Category, Images, Price and Description etc.	Product_Add_View_ Update_Search Page

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FR 3	Manage Product:	
	To manage this module, the Admin and will be able to perform following operations like:	Product_Add_View_ Update_Search Page
	Add new Product	
	Update an existing Product	
	Active/De-active Product	
	The Admin and customer will be able to:	
	• View/Search Products	
FR 4	The Admin will be able to:	Product_Add_View_
	 View/Search Product (by Category wise, Product_id wise, Name wise) 	Update_Search_Active_Deactive Page
FR 5	Manage Category: In Manage Category module, the admin will be able to perform following operations like:	catagory_Add_View _Update_Search Page
	 Add new category (Branch wise) 	
	Update an existing category	
	• Active/De-active The Admin customer and manager will be able to:	
	• View/Search categories	
	The system will assign a unique id (Category id) to each	

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FR 6	Manage Description: In manage Product description module the Admin will be able to perform following operations like: • Add description • Update Description	Product_Add_View_ Update_Search Page
FR 7	Manage Image: In manage Image module Admin will be able to perform following operations like: • Add Product Image • Update Product Image	Product_Add_View_ Update_Search Page
FR 8	Manage Price: In manage price module Admin will be able to perform following operations like • Add Product price • Update Product price	Product Add View Update_Search Page

Module 3: Manage Customer

RN	Description	Comments
FR1	This module will be managed by Admin and Customer.	Customer
	The customer shall also be able to register himself and edit his/her profile.	Registration(Add_Page)
	The system will assign a unique id (customer id) to each customer.	Customer_
		View_Update_Se arch_ Active_Deactive Page
FR 2	V:/C1	Customer View _ Update_Search Active De-active Page

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RN	Description	Comments
	The customer will be able to perform following operations	Add_To_Cart Page
	like: ■ Add Product to cart ■ Update cart Products ■ Removed cart Products ■ View Cart history	

Module 5: Manage Cart

RN	Description	Comments
FR1	This module will be managed by Customer. The customer	Add_To_Cart
	will be able to perform following operations like:	Page
	Add to cart	
	Update cart Products	
	Removed cart Products	
	View Cart history	
	·	

Module 6: Manage Customer Order

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RN	Description	Comments
FR1	This module will be managed by Customer. The system will assign a unique id (order id) to each customer's order.	Customer_Order_ Add Page Customer_Order_ View_Update_Sea rch_ Delete Page
FR2	The Admin will be able to: • View/Search customer order(s)	Customer_Order_ View_Update_Search_ Delete Page
FR 3	After adding the product into cart, if the Customer_Order_customer confirms his/her order, then after Add Page login into the system the customer will be able. • Confirm order • Cancel (Delete) order • View order	Customer Order View Update Search Delete Page
FR 4	The customer will be able to view order history.	Customer_history.

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The customer will be able to cancel the order before delivery, within limited time period	Cancel Page

Module 7: Generate Bill

RN	Description	Comments
FR1	After the confirmation of order placed by the customer the system will be able to generate bill in ".pdf" with all the necessary details of the Customer.	Customer_Order_ Add Page ".pdf' Format (Open-source plugin)
FR 2	The system will also allow the Admin to print the bill with all the necessary details of the Customer.	Customer Order Page .pdf" Format (Open-source plugin)

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The system will assign a unique id (bill no) to each customer's order bill.	Customer Order Page .pdf" Format
	(Open-source
	plugin)

Module 8: Manage Payment

RN	Description	Comments			
FR1	After the generation of bill, the customer shall	Payment Page			
	be able to make payment using one of the				
	online payment gateways (compulsory in				
	online order) or through cash on delivery.				
	The system will assign a unique id (paymentid)				
	to each customer's order bill.				

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Module 9: Manage Feedback

RN	Description	Comments
FR1	The customer will also be able to give	Feedback Page
	feedback in email. The system will assign a	
	unique id (feedback id) to each customer's	
	feedback.	
FR2	The feedback which is given by the customer	Feedback_View
	and also be viewed by the Admin.	Page

4.2 Non-Functional Requirement:

Non-functional requirements are often called qualities of a system.

RN	Description	Comments
	The user can log in through any browser But if he/she try to login in different browser without logout it will automatically logout that previous login.	performance
	The application will be Password protected. The Users will have to enter correct username and password to access the system.	Security
NFR3	The system will be easily portable on any browser .	Portability

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Chapter 4

System Design

4.1Database Design:

4.1.1 Database Schema:

1) Manage Users:

Tbl_user(user_id[PK],[PK],fname,lname,email,phonenumber,pincode,city,area,address,password,t&c,user_rol,session_id)

FD: user_id->{fname, lname, email, phonenumber, pincode, city, area, address, Password,t&c,user_rol,session_id}

2) category:

```
tbl_category(category_id[PK], category_name)
FD: category_id->{category_name}
```

3) Tbl_product:

Product(pid[PK],product_name,product_desc,product_img,product_stock, purchase_amount, sales_amount, purchase_date, expiry_date, category_id[FK][tbl_category], sales_total)

FD: pid->{product_name,product_desc,product_img,product_stock, purchase_amount, sales_amount, purchase_date, expiry_date, category_id[FK][tbl_category]sales_total}

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4) Manage Cart:

Tbl_cart(cart_id[PK],user_id[FK][Tbl_user], flag)

FD: cart_id-> {user_id[FK][Tbl_user],flag}

Tbl_cartdetail(cart_detail_id[PK],

cart_id[FK][Tbl_cart],product_id[FK][Tbl_product], quantity)

FD: cart_detail_id -> {cart_id[FK][Tbl_cart],product_id[FK][Tbl_product], quantity}

5) Manage wishlist:

wishlist(wid[PK], product_id[FK][Tbl_product], quntity)

6) Manage Customer Order:

order(oid[PK],order_date,user_id[Fk][Tbl_user])

FD:oid->{order_date, user_id[Fk][Tbl_user]}

Orderdetails(orderdetails_id,cartid[Fk][Tbl_cart],productid[FK][Tbl_product],fn ame,lname,email,pho,city,pincode, shipping_address)

FD:orderdetails_id->{cartid[Fk][Tbl_cart],productid[FK][Tbl_product],fname,lname,email,pho,city,pincode, shipping_address}

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4.1.2 Data Dictionary

1) Registration

Sr.	Field Name	Data	Size	Constraints	Description
No.		Type			
1	rid	int	-	Primary	Identifies
				Key,	Unique id of
				Auto	registration.
				increment	
2	fname	Varchar	50	Not Null,	Specifies first
					name of
					User.
3	lname	Varchar	50	Not Null	Specifies last
					name of
					User.
4	email	varchar	50	Not Null	Unique email
5	phonenumber	bigint	-	Not Null	Unique phone numbers
6	Pincode	int	-	-	Area purpose
7	city	varchar	40	-	Name of city
8	area	varchar	40	-	Name of area
9	Address	varchar	40	-	Address
10	Password	varchar	40	Not Null	Password of
					user
11	t&c	int	-	-	Trems and
					condition
12	User role	int	-	Not Null	Types of User(Admin, customer)

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.3	Session_id	varchar	50	Not Null	Store session
					value for
					different browser

2) Manage Product:

• tblProduct:

Sr.	Field Name	Data	Siz	Constraint	Description
No		Type	e	S	
1	pid	int	-	Primary	Identifies
				Key, Auto	Unique id of
				increment	Product
2	pname	Varcha	50	Not null,	Specifies
		r		Unique	name of
					Product
3	p_desc	varchar	-	Not Null	Specifies the
					product
					descripition.
4	image	varchar	100	Not Null	Name of the
					image
5	stock	varchar	50	Not Null	Specifies the
					Total stock
					(kg)
6	purchase_amou	int	-	Not Null	Specifies the
	nt				purchase
					amount
7	purchase_date	date	-	Not Null	Specifies the
					purchase_dat
					e
8	expiry_date	date	50	Not Null	Specifies the
					expiry_date

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9	cid	int	-	Foreign	Referance of
				key	category
					table
10	Total_sell	int	-	Not Null	Shows total
					sells of
					product

3) Manage categoy:

• Tbl category:

Sr.	Field Name	Data	Size	Constraints	Description
No.		Type			
1	cid	int	-	Not Null	Identifies
					Unique id of
					category
2	Category_name	Varchar	50	Not Null	Specifies the
					Category name

3) Manage Cart

tblCartMaster

Sr.	Field	Data	Size	Constraints	Description
No.	Name	Туре			
1	cart_id	Int	-	Primary	Identifies Unique id
				Key,	of cart.
				Auto	
				increment	

2	rid	Int	-	Foreign	Refrance of
				key	registration table
3	flag	Int	-	Not null	Check order place or
					not

tbl cartdetail:

Sr.	Field Name	Data	Size	Constraints	Description
No.		Type			
1	cart_detail_id	Int	-	Primary	Identifies Unique
				Key,	id of cartdetail.
				Auto	
				increment	
2	cart_id	Int	-	Foreign key	Refrance of cart
					table
3	pid	int	-	Foreign key	Refrance of
					product table
4	quantity	int	-	Not Null	Specify total
					quantity of
					product

5) Manage wishlist wishtlist

Sr.	Field Name	Data	Size	Constraints	Description
No.		Туре			
1	Wistlist_id	Int	-	Primary	Identifies
				Key,	Unique id of
					wishlist.

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				Auto	
				increment	
2	pid	Int	-	Foreign	Refrance of
				key	product table
3	quntity	int	-	Not Null	Specify total
					quantity of
					product

6) Manage Customer Order order

Sr.	Field Name	Data Type	Size	Constraints	Description
No.					
1	Order_id	int	-	Primary	Identifies
				Key,	Unique id
				Auto	of order.
				increment	
2	order_date	date	-	Not null	Specify
					order date
3	rid	int	-	Foreign	Refrance of
				key	registration
					table

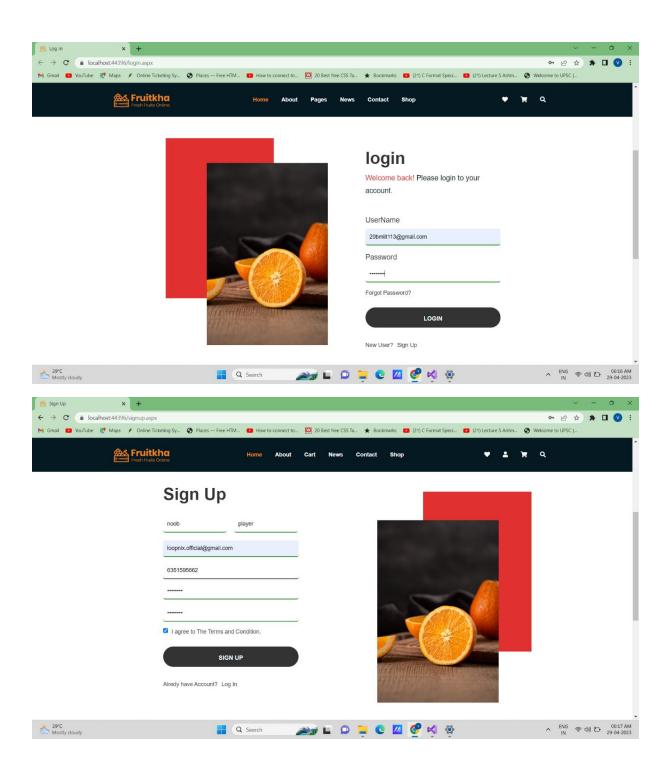
7) Orderdetails

Sr.	Field Name	Data	Size	Constraints	Description
No.		Type			
1	orderdetails_id	Int	-	Primary	Identifies Unique
				Key,	id of
				Auto	Orderdetails.
				increment	
2	cartid	Int	-	Foreign key	Refrance of cart
					table
3	productid	Int	-	Foreign key	Refrance of
					product table
4	fname	varchar	40	Not null	Specifies first
					name
5	lname	varchar	40	Not null	Specifies last
					name
6	email	varchar	50	Not null	Specifies email
					name
7	pho	bigint	-	Not null	Specifies phone
					number
8	city	varchar	50	Not null	Specifies city
9	pincode	int	-	Not null	Specifies
					pincode
10	shipping_address	varchar	40	Not null	Specifies
					shipping_address

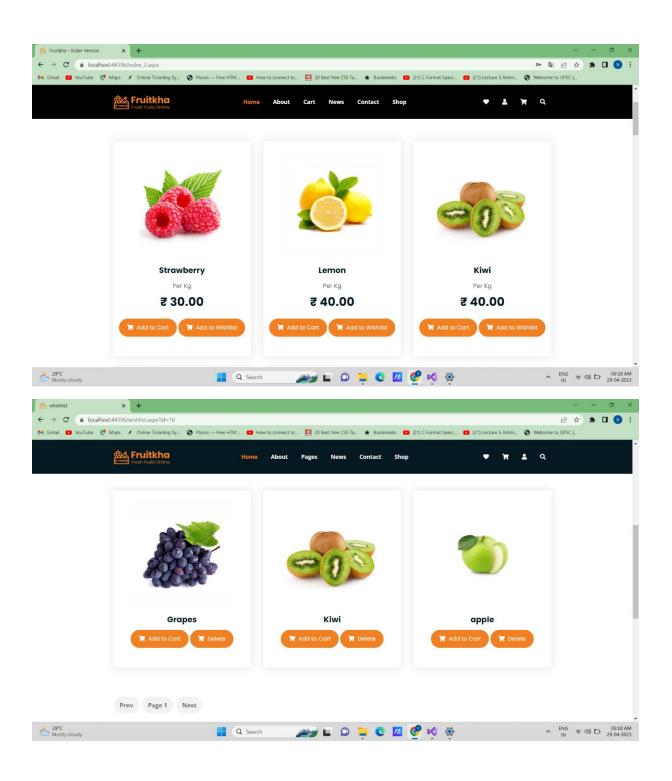
Chapter 5

System Implementation

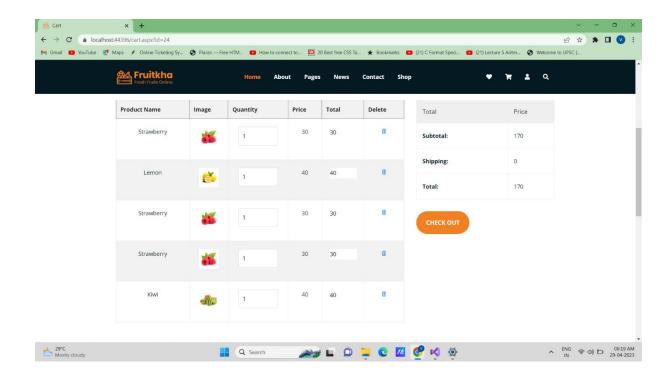
5.1 Screenshots:

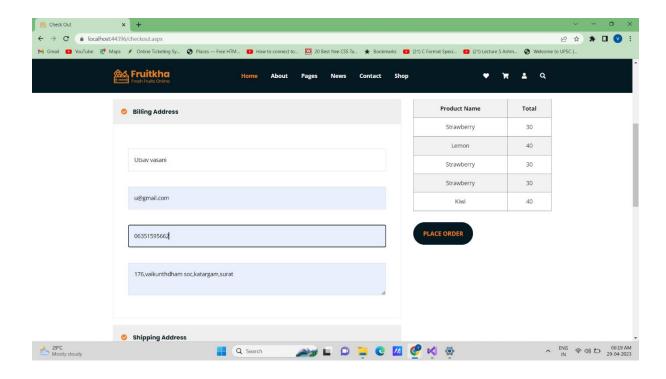


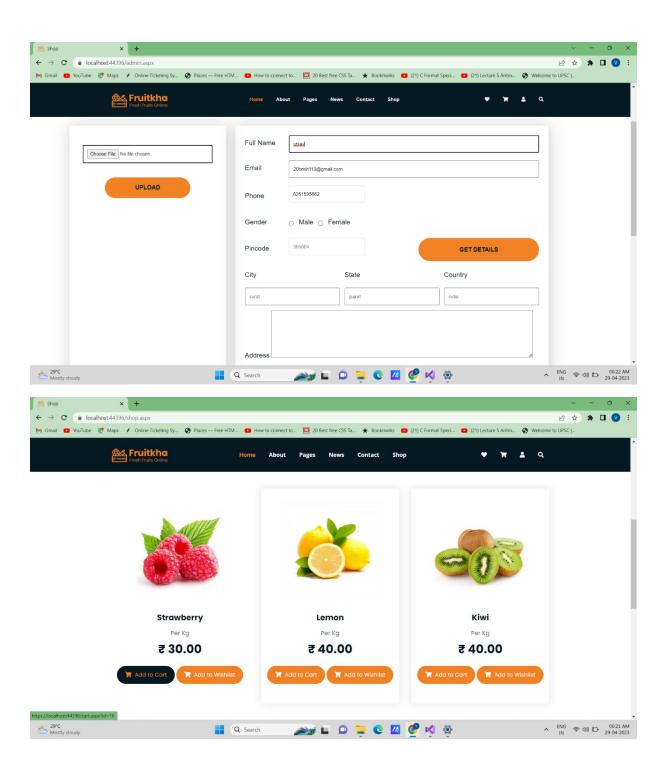
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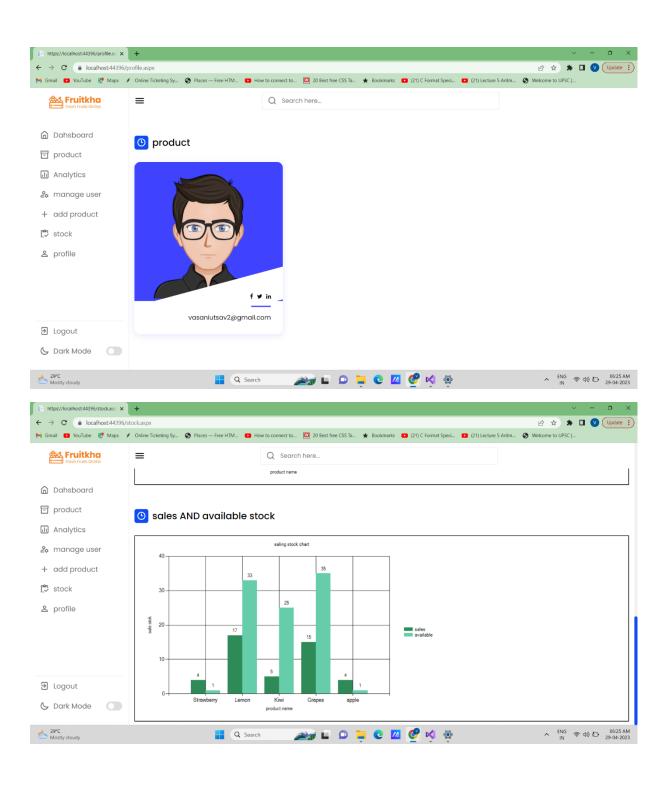


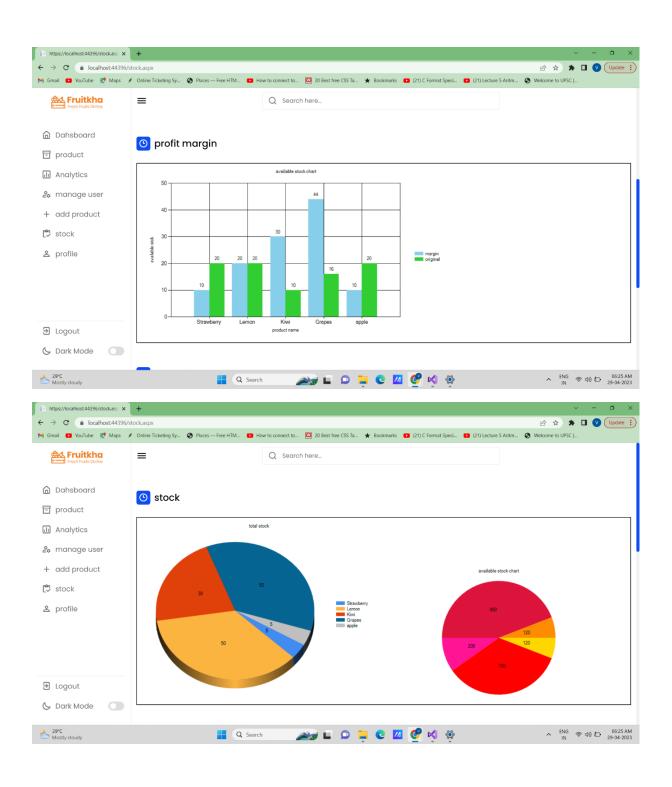
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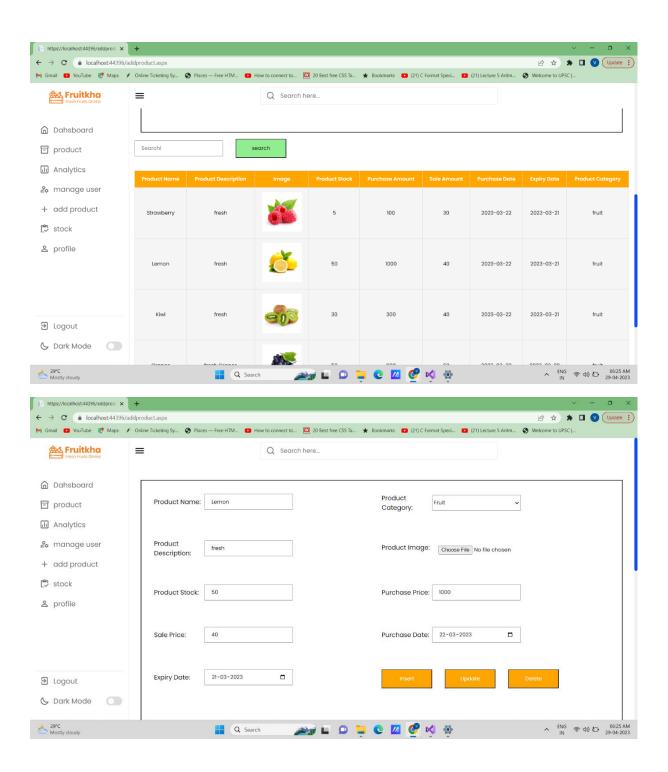


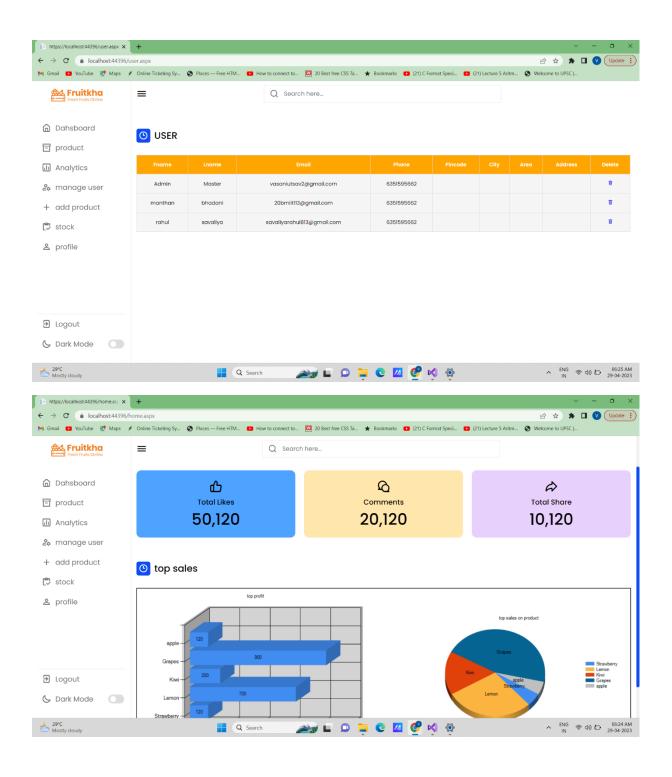












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Chapter 6

Testing

6.1 Test Cases:

6.1.1 Registration:

Test Case	Input	Description	Actual output	Expected Output	Remarks
1.	Username=null	Missing Username	Error Message	Error Message	No
2.	Password=null	Missing Password	Error Message	Error Message	No
3.	Username=Invalid	Invalid Username	Invalid User	Invalid User	No
4.	Password=Invalid	Invalid Password	Invalid Password	Invalid Password	No
5	Username=Valid Password=Valid	Valid User	View System	View System	Yes

6.1.2 Registration

Test Case	Input	Description	Actual output	Expected Output
1.	FirstName=""	Enter FirstName	Error Message	Error Message
2.	LastName=""	Enter LastName	Error Message	Error Message

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3.	Email=""	Enter Email	Error Message	Error Message
4.	PhoneNumber=""	Enter Contact Number	Error Message	Error Message
5.	Password=""	Enter Password	Error Message	Error Message
6.	Confirm Password=""	Enter Confirm Password	Error Message	Error Message

6.1.3 Manage Product(Admin)

Test Case	Input	Description	Actual output	Expected Output
1.	productName=""	Enter productName	Error Message	Error Message
2.	Total purchase stock (kg)=""	Enter Stock	Error Message	Error Message
3.	image=""	Enter image	Error Message	Error Message
4.	category =""	Enter Category	Error Message	Error Message
5.	Price=""	Enter price	Error Message	Error Message

6.1.4 Forget password

Test Case	Input	Description	Actual output	Expected Output
Case				Output

1.	Email ='""	Enter user email	Error Message	Error Message
2.	Otp=""	Enter otp	Error Message	Error Message
3.	Otp=invalid	Enter otp	Error Message	Error Message
4.	Otp=valid	Enter otp	Change password	Set new password
5.	Confirm new password=""		Error Message	Error Message

6.1.5 Place Order(user)

Test Case	Input	Description	Actual output	Expected Output
1.	FirstName=""	Enter FirstName(change firstname)	Error Message	Error Message
2.	LastName=""	Enter LastName(change last name)	Error Message	Error Message
3.	Address=""	Enter address(change address)	Error Message	Error Message
4.	Area=""	Enter area(chage area)	Error Message	Error Message
5.	Pincode=""	Enter pincode(change pincode)	Error Message	Error Message

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6.	Phone=""	Enter phone	Error	Error
		number(change	Message	Message
		phone number)		

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Chapter 9

Future Enhancement:

In the future, this system will have several advantages, such as increased speed, efficiency, and cost-effectiveness. It will also provide enhanced security and integrity, enabling new functionality such as stock management and other advanced features. This will help make the system even more useful and effective.

Conclusion:

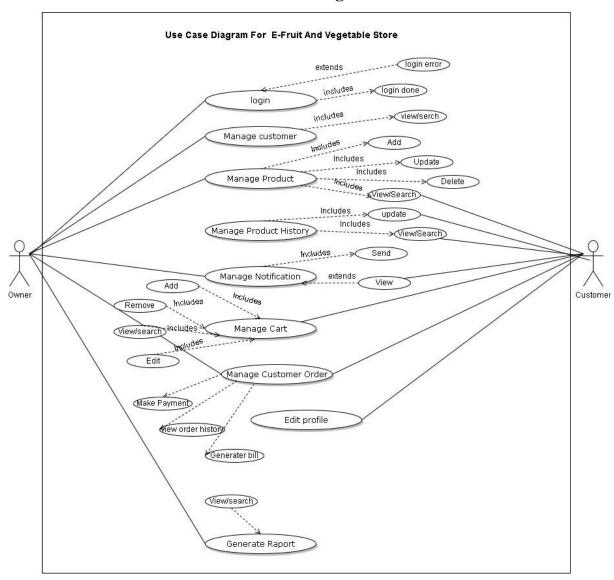
This system will provide much flexibility to a restaurant for managing mostly each and every factor which will make it more smoother. And we can expanse boundaries to a system, this system can also be enhanced to its further potential.

Bibliography:

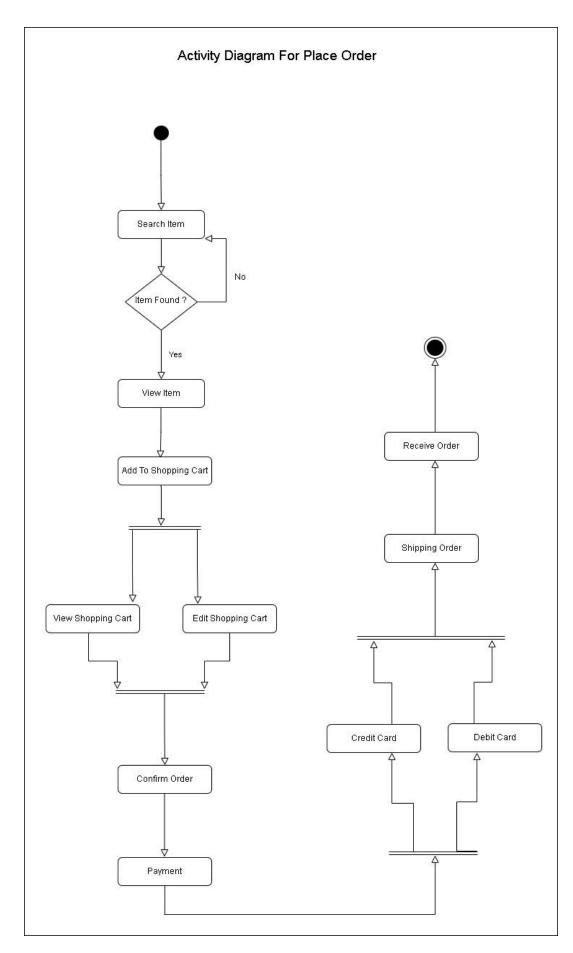
- Github
- Draw.io for diagrams
- Stackoverflow
- Geekforgeeks

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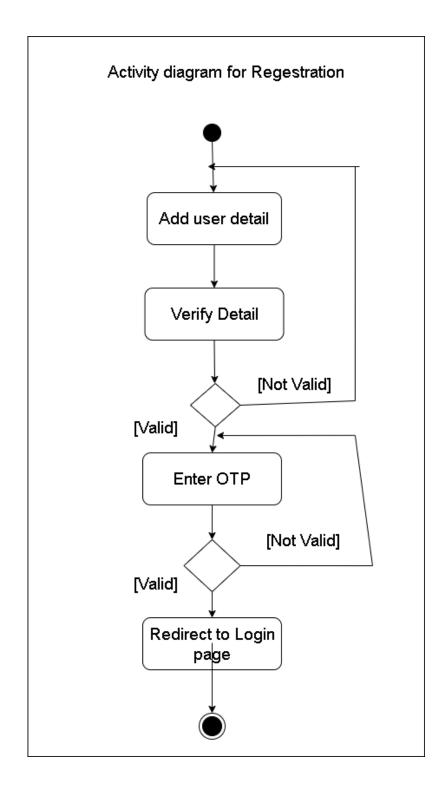
Use Case Diagram



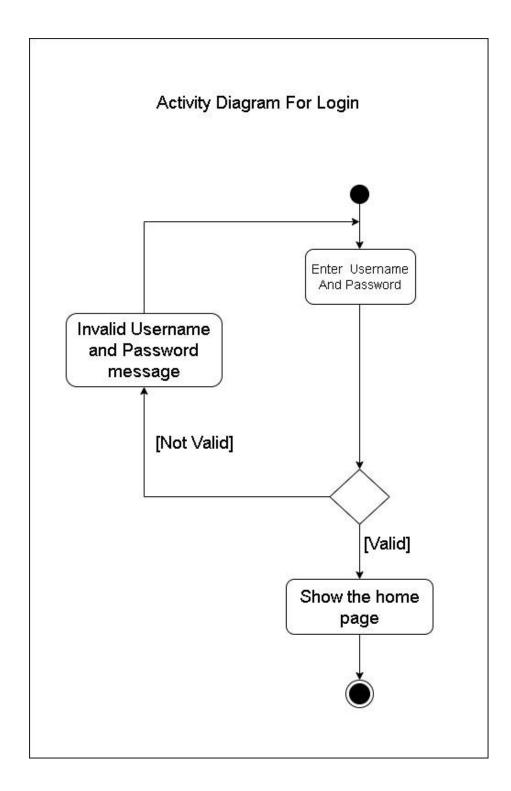
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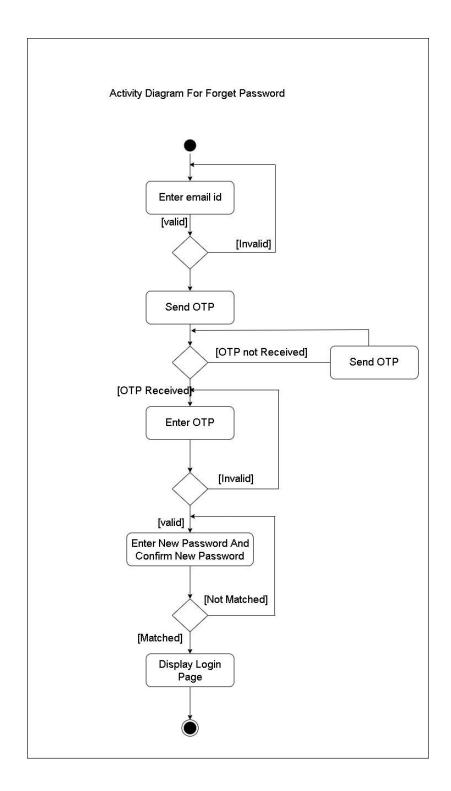


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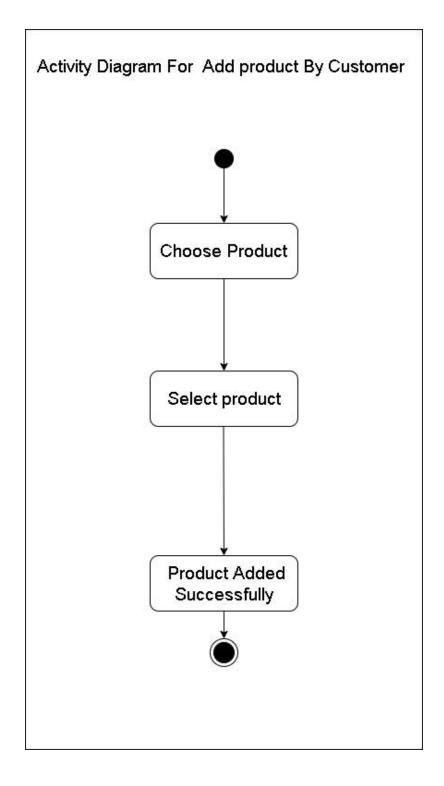


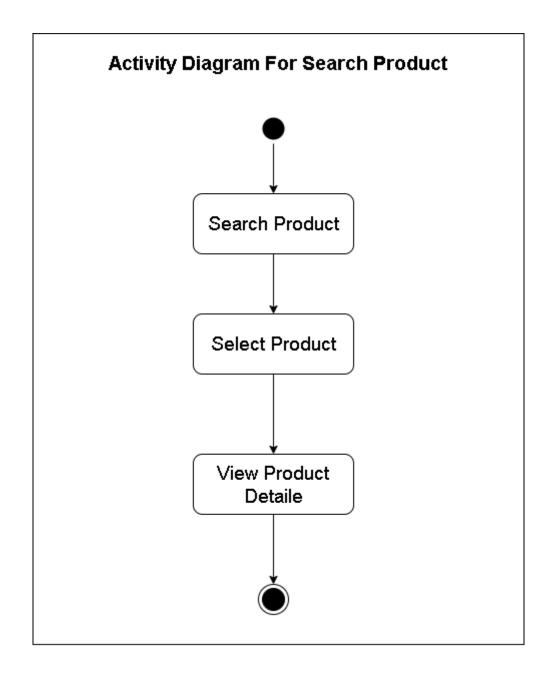
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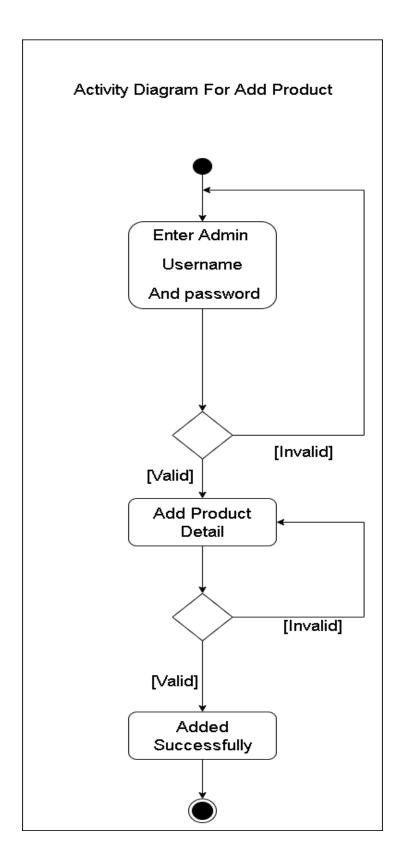


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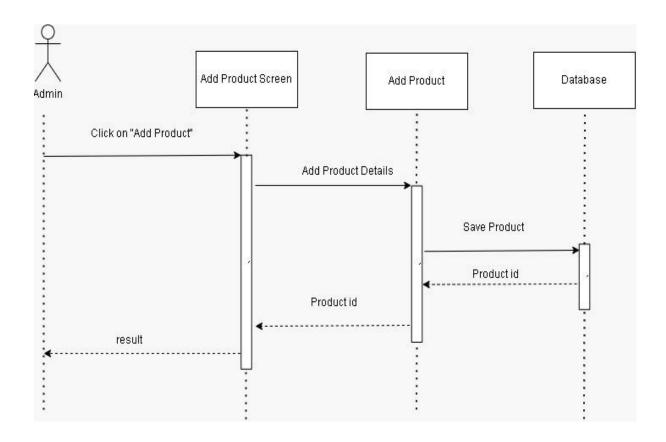




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