A Project Report Submitted at
Medi-Caps University, Indore
In partial fulfillment of the degree
of
Master of Computer Application

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CERTIFICATE

This is to certify that

Mr. Abhishek Sevarik [EN20CA501007]

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has completed their project entitled **'E-commerce'.** The project work is the requirement of 4th Semester of the degree of Master of Computer Application (MCA).

Ms. Varsha Mandlo   Mr. Anil Patidar

Signature:………….   Signature:………….

(Project Guide)   **(Head of Department)**

The report has been examined and valued by us.

Signature:………….   Signature:………….

Name:……………...   Name:……………...

(Internal Examiner)   **(External Examiner)**

Date: Date:

Acknowledgement

Primarily we would like to thank god for being able to complete this project with success. Then we would like to thank our teacher Ms.Varsha Mandloi whose valuable guidance has been the ones that helped us patch this project and make it full proof success. His suggestions and her served as the major contributor towards the competition of the project.

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Introduction

 E-commerce Products store is the web and hybrid mobile application which is developed to reduce manual work. The aim of the E-commerce products shops is to buy general basic needs that user requires in day-to-day life online.   In which the customer or we can say the user can order the Products and can get the delivery according to their needs. and users can also manage the details of shopping. Our aim is to cover all basic needs that a user requires like clothing,electronics etc . We are developing a Separate online E-Commerce Products Store Platform that contains all the necessary products and appliances that a user requires in their day to day life.

Background

2.1 Description of the existing system

We have studied other online shopping websites that are providing the online platform to all the intermediate sellers that are interested to sell their products online but due to this the value of the product will cross the standard rate.

To solve this problem we are targeting only those sellers which make the product or wholesale sellers who wish to expand their business not intermediate shopkeepers who sells the same product at max rate.By doing this we offer the same product in price as low as possible.For achieving this we have targeted three major platforms (Web,IOS,Android) which currently costumes 90% of the market by developing an hybrid app that runs on these platforms optimally.

2.2 Circumstances leading to the current new system

- The basic problems with the existing systems are the non-interactive environment they provide to the users.
- The use of traditional user interfaces which make continuous post backs to the server; each post back makes a call to the server, gets the response and then refreshes the entire web form to display the result.
- A search engine that would display the results without allowing the users to further filter the results based on various parameters. A call is still goes to server and fetch back the results and display it to the user.

- Not user friendly, hard to search the Products for the user.
- Use of traditional and non-user-friendly interfaces that are hard to use

2.3 Objective of the project

- To develop an online Platform which helps the user to get the electronic IOT products and appliances.

- To explore the challenges being faced by the manual system.

- To make a Web application fast in processing and with a good user interface. And user-friendly

- The website is flexible to be used and for e-shopping .

- To build Hybrid Mobile application which runs on Android and Ios irrespective of their sizes specifications etc.

- To maintain a single code which targets all the three platforms i.e web,Android ,Ios optimally.

3. System Requirement Analysis

3.1:-Information Gathering:

If the feasibility report is positive towards undertaking the project, next phase starts with gathering requirements from the user. Analysts and engineers communicate with the client and end-users to know their ideas on what the software should provide and which features they want the software to include.

3.2:-System Feasibility

3.2.1 Economic Feasibility

The economic feasibility step of business development is that period during which a break-even financial model of the business venture is developed based on all costs associated with taking the product from idea to market and achieving sales sufficient to satisfy debt or investment requirements.

We made our project in such a way that is feasible to a med level startup companies which is wanted to capture all the major platforms which minimum cost and require a rapid development.In order to achieve that we have made the Ecommerce by maintaining the single code base which drastically saves the financial aspect and promotes the rapid development of the app.

3.2.2 Technical Feasibility

Technical Feasibility, involves development of a working model of the product or service. It is not necessary that the initial materials and components of the working model represent those that actually will be used in the finished product or service. The purpose of the working model is to demonstrate, to your own satisfaction, that the product or service is functional and producible.

While Developing This Ecommerce app we have explored all the tools and technologies on which the existing sites are working but we have encountered that they maintain different tools and technologies to capture all the three domains(i.e web,android,ios) .After days of searching we have finally found the optimal language which can run on all the three platforms while maintaining the single code base i.e flutter.We have also gone through several hybrid mobile application that can be run on mobiles but we won't be able to capture the mobile domain.so that's why we choose to go on with flutter.

3.2.3 Behavioral Feasibility

It evaluates and estimates the user attitude or behavior towards the development of new system.It helps in determining if the system requires special effort to educate, retrain, transfer, and changes in employee's job status on new ways of conducting business.

3.3 Method/Technology to be used

Hardware requirements-

- Web Browser: chrome ,Mozilla

- Mobile Device:Android 5.0+ or Ios 6+

Software requirements-

- Operating system: Windows 7,8,10,MacOs,Android,IOS

- Flutter,provider,Google auth(Front end)

- Firebase auth ,Firebase firestore(Back end)

- IDE: VS code,android studio(for ios app),android studio(android app)

Analysis

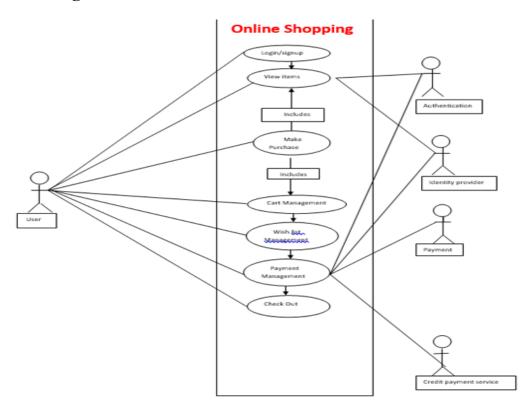## 4.1 System Requirement Analysis

- At checkout time, the items in the shopping cart will be presented as an order. At that time, the Products are adding according to the user.
- System Requirement Analysis of E-Commerce Product   consists of requirements that the system must have to run properly.

- System must be run according to the user requirement.

- A System interface must be easy and simple to use.

- The internet shopping website is an ecommerce information system, where c ustomers can access the vendor's

  products online via their web browsers anytime anywhere around the world.
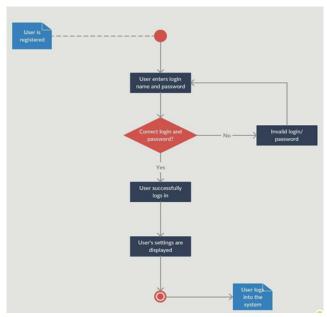
4.2 System Analysis

Use Case Diagram :-

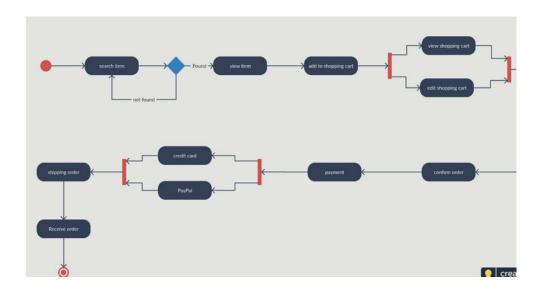**Online Shopping**

Sequence Diagram:

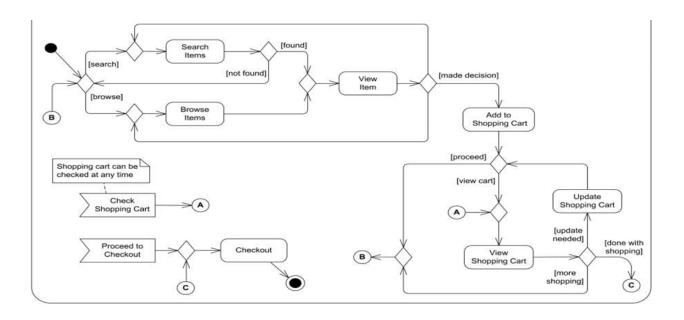# 1. User login -
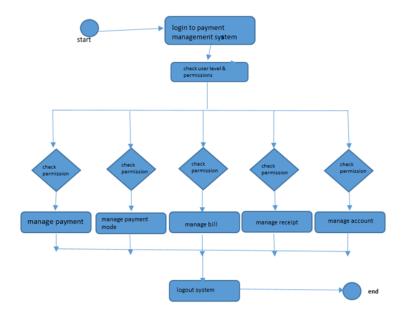
2. Online shopping system :-
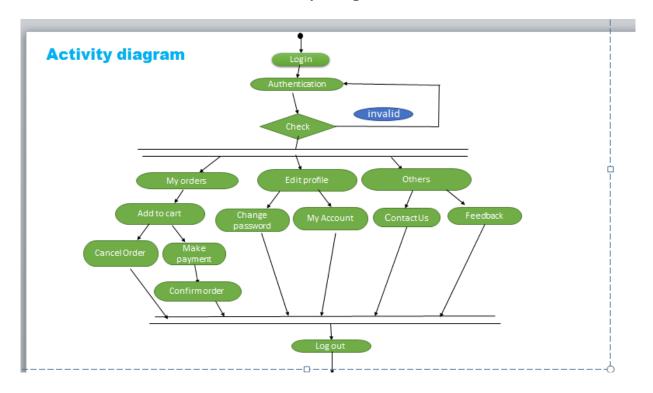
3. Cart management :-

4.Payment management system :-

Activity Diagram:

4.3 Information flow representation (DFD)

(USER)

1st Level User side DFD

2st Level User DFD - (4.0)

User	request to login → / ← Response	4.0 Login	check detail → / ← reply	UserMst

		4.1 View Account	Request for view → / ← reply	UserMst

		4.2 Cahnge Password	Update password → / ← reply	UserMst

		4.3 Edit Account	Edit Profile → / ← reply	UserMst

2st Level User DFD - (5.0)

User	request to login → / ← Response	5.0 Login	check detail → / ← reply	UserMst

		5.1 View Item	Request for view → / ← reply	ItemMst

		5.2 Add to cart	Update password → / ← reply	OrderMst

		5.3 Confirm Order	Edit Profile → / ← reply	OrderMst

Design

4.1 System Architecture

- Login & Signup :-

● **Home page**

- **Wish-list management**

User profile

● **Payment management :-**

4.2 Database Design

Delivery Page

Your Items
1 items

baap bag
$600.0
OrderDate: 2021-12-04 11:27:02.499
Quantity:5
order
Id:83ae203e-11d1-4bc5-8f8b-945120ea0ec4

Product Details

Database Screenshot 1 (products)

ecommerceflutter-2a0d9	products	2213d665-633d-4649-836d-d77029fe604d
+ Start collection	+ Add document	+ Start collection
order	2213d665-633d-4649-836d-d77029fe604	+ Add field
products >	9a3dbff4-ee05-4898-9317-183b61cc05e	
users	a2962046-b711-41c2-9d49-453a8f81d74	

Color: "4748242"

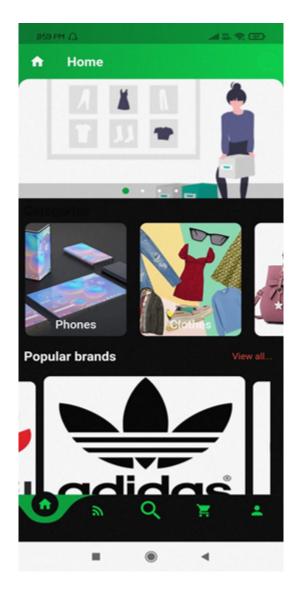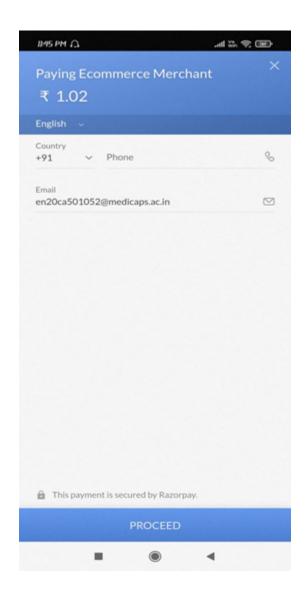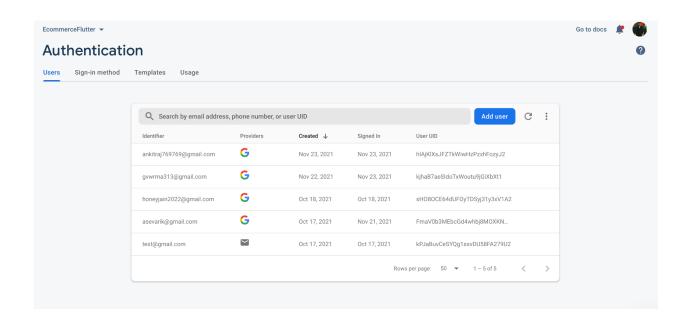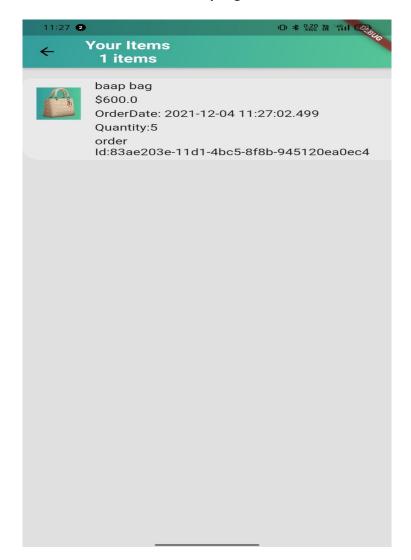createdAt: September 21, 2021 at 11:20:34 AM UTC+5:30

price: "120"

productBrand: "H&M"

productCategory: "Beauty"

productDescription: "this is a marvelous bag posting in least price"

productId: "2213d665-633d-4649-836d-d77029fe604d"

productImage: "https://firebasestorage.googleapis.com/v0/b/ecommerceflutter-2a0d9.appspot.com/o/productsImages%2Fbaap%20bag.jpg?alt=media&token=47d9e333-6e17-4d6d-a6a6-d4de71e0bc3f"

productQuantity: "10"

productSize: "34"

productTitle: "baap bag"

Cloud Firestore location: nam5 (us-central)

Database

Database Screenshot 2 (users)

ecommerceflutter-2a0d9	users	FmaV0b3MEbcGd4whbj8MOXKN2Fj1
+ Start collection	+ Add document	+ Start collection
order	FmaV0b3MEbcGd4whbj8MOXKN2Fj1 >	+ Add field
products	hlAjKlXsJFZTkWiwHzPzxhFozyJ2	
users >	kPJaBuvCeSYQg1ssvDU58FA279U2	
	kjhaB7aeSIdoTxWoutu9jGiXbXt1	
	sHO8OCE64dUFOyTDSyj31y3xV1A2	

Address: "NA"

JoinedAt: "21 11 2021"

email: "asevarik@gmail.com"

id: "FmaV0b3MEbcGd4whbj8MOXKN2Fj1"

image: "https://lh3.googleusercontent.com/a-/AOh14Ggj9nuR_2wg2zayelliZTxDXqHLUPEew9oZzFEkGw=s96-c"

name: "abhishek sevarik"

phoneNumber: null

Cloud Firestore location: nam5 (us-central)

	Name	Size	Type	Last modified
☐	gs://ecommerceflutter-2a0d9.appspot.com			
☐	📁 UserImages/	—	Folder	—
☐	📁 productsImages/	—	Folder	—

Upload file

4.3 Interface Design

Addidas

Apple

Dell

H&M

Nike

Samsung

Huawei

bag 2

US 102.0 $

Beauty

h&m special bag

US 100.0 $

Beauty

baap bag

US 120.0 $

Beauty

User Bag

♡	Wishlist	>
🛒	Cart	>
🛍	My Orders	>

User Information

✉ Email
en20ca501052@medicaps.ac.in

☎ Phone

✉ Shipping Address
en20ca501052@medicaps.ac.in

✉ Joined Date
10 10 2021

User Settings

Paying Ecommerce Merchant
₹ 1.02

English ⌄

Country
+91 ⌄   Phone

Email
en20ca501052@medicaps.ac.in

🔒 This payment is secured by Razorpay.

PROCEED

Filter Product

Search

1

0

🔍 h&m ✕

new

h&m special bag
$ 100.0

•••

Web Components

Welcome

Let's Kick Now !
It's easy and takes less
than 30 seconds

LOG IN

Email   ✉

Password   🔒

Log In

You do not have an account? **Sign Up** →

< HOME   © Copyright 2020

Welcome

Let's Kick Now !
It's easy and takes less
than 30 seconds

SIGN UP

Name   👤

Email   ✉

Password   🔒

Create Account

Already have an account? **Log In** →
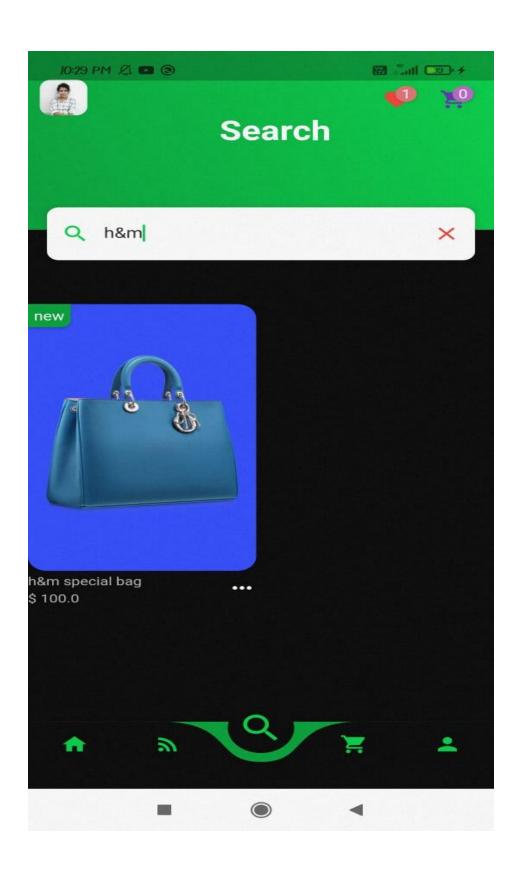
< HOME   © Copyright 2020

Home   Products

Super sale
Save up to 65%

Shop Now
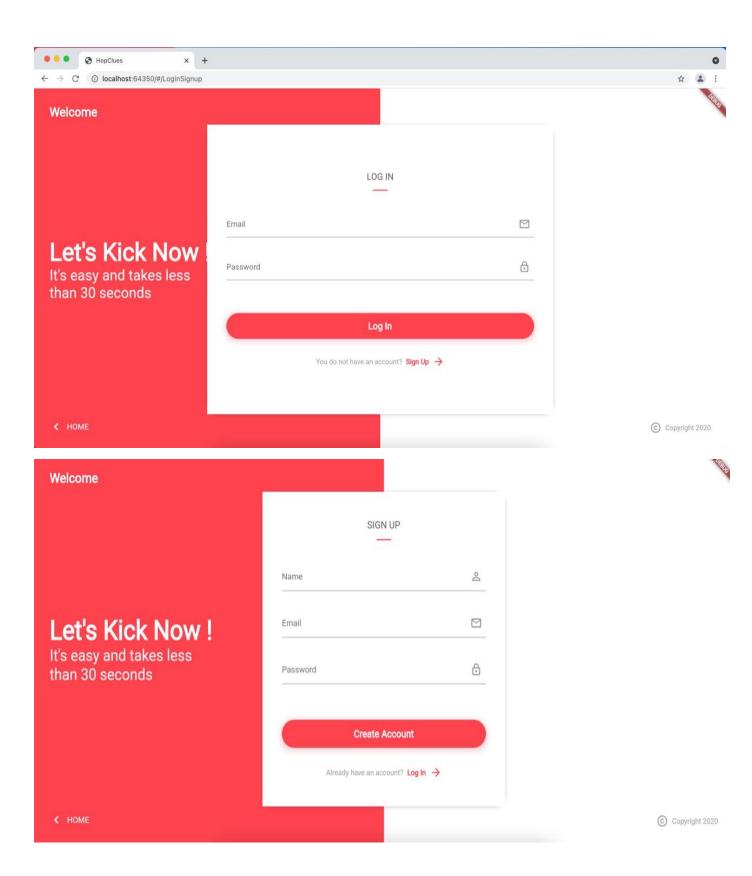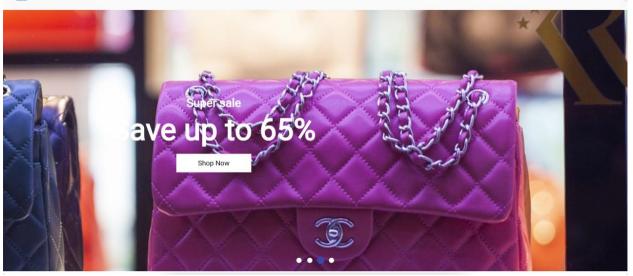
Popular products

SB CREATION Women's Knee
Length Dress
$200

FINE FASHION Comfortable
Casual Flats Sandal
$11

Nike Men Flex 2019 Rn
Running Shoes
$30

Super stylist fashion jeans for
women
$5

<u>Testing</u>

5.1 Scope of testing

Shopping Application testing helps in the prevention of errors and adds value to the product by ensuring conformity to client requirements.

The objective of testing is to ensure

- Software reliability
- Software quality
- System Assurance
- Optimum performance and capacity utilization

Type of testing:-

Unit Testing

Unit Testing contains the testing of each unit of Recruitment Application. We have tested each interface by input values and check whether it is working properly or not we also tested database connectivity. We have entered value in interface and check that the values are properly goes to corresponding tuples or not.

Integration Testing

Integration testing is defined as the testing of combined parts of an application to determine if they function correctly. Integration testing can be done into two ways: Bottom-up integration testing and Top-down integration testing.

Functional Testing

FUNCTIONAL TESTING is a type of software testing that validates the software system against the functional requirements/specifications. The purpose of Functional tests is to test each function of the software application.

5.2 Test plan

- Homepage
- Product Details Page (PDP)
- Shopping Cart
- Feedback Page
- Filter Page
- Checkout Flow
- Order Confirmation Page

5.3 Test case design

- Does the site logo appear as per the design?
- Is the website logo clickable and takes the user to the site homepage?
- Assuming that the site permits this, can the customer purchase the item as a guest user?
- Can a guest user easily create an account and after that login to check it is redirected to products Page.
- Can a guest user register as a member from the registration page?
- Does this page display the correct products based on the selected category?
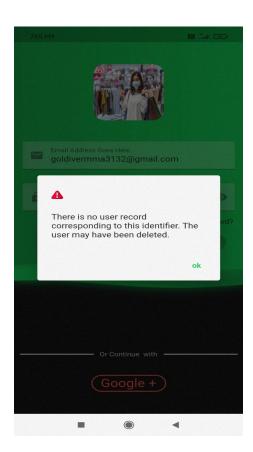- Does the guest user send the feedback to the admin site in a proper way?

- Does this product get added to cart when added?
- Does the product filter accordingly?
- Does the quantity in cart get updated when the product is added to cart?
- Does this page display the delivery details correctly?
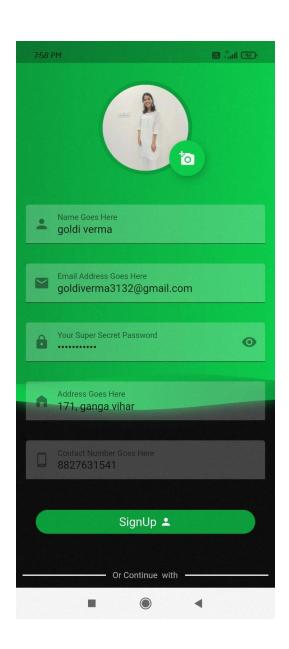
5.4 Sample test data and results

- Image or images of the product
- Login and register guest user
- Price of the product
- Product specifications
- Feedback
- Filter Products
- Check out options
- Delivery options
- Order confirmation page

- Add items to the cart and continue shopping
- If the user adds the same item to the cart while continuing to shop, the item count in the shopping cart should get incremented.

Error Email-:

Form validation

Name Goes Here
goldi verma

Email Address Goes Here
goldiverma3132@gmail.com

Your Super Secret Password
•••••••••••

Address Goes Here
171, ganga vihar

Contact Number Goes Here
8827631541

SignUp 👤

Or Continue with

<u>Limitations</u>

- E-Commerce products-shop have some limitations as this is the first application and implements on a very small scale.
- User can only order Products from the Eshop which is by the admin side
- Users must have proper internet connection to stay on our Website.
- Users may face problems running the application in mobiles.
- Users may face problems with the online Payment option.

Conclusion

- The development of the software includes so many people like user system developer, user of the system and the management, it is important to identify the system requirements by properly collecting required data to interact with the system
- E-commerce products shop comes up with the new idea where user can buy electronic IOT products and appliances can get deliver according to the user and we will try to cover all electronic appliances that comes under and make efficient searching products without waist any time and make a better payment gateway.
- This application is very much flexible with the normal user also.

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Future Scope

- We try to make this project available at large scale in future, for any location all over India(if possible).
- We will implement the better search products without waist any time
- In Future we try to make our platform more secure and make more efficient payment options.
- The E-commerce products shop came up with the new idea and our aim is to cover all other products that come under the electronic appliances and IOT products can get the delivery according to the user requirement.
- And will try to make our platform more easier so it will be easier for any non-technical person to come and access our services.
- We will enhance more features in our project.

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