Project Report

On

Promising All Distribution Services (PADS)

For

Radon Tech

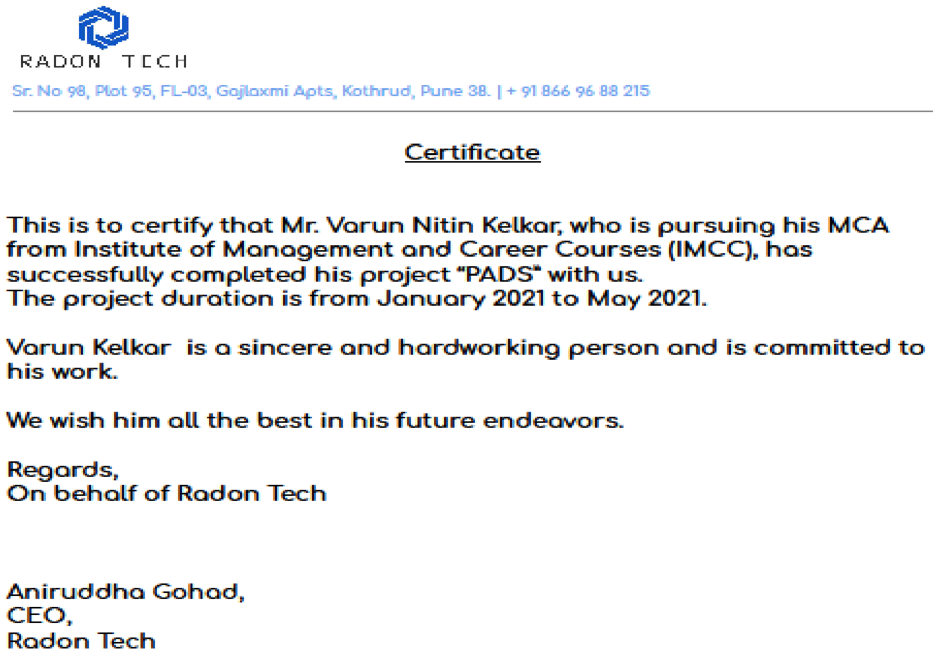
By

Varun Nitin Kelkar

Roll No. 1812024

MCA (2018 – 2021)

Certificate from Company



RADON TECH

Sr. No 98, Plot 95, FL-03, Gajlaxmi Apts, Kothrud, Pune 38. | + 91 866 96 88 215

Certificate

This is to certify that Mr. Varun Nitin Kelkar, who is pursuing his MCA from Institute of Management and Career Courses (IMCC), has successfully completed his project "PADS" with us.
The project duration is from January 2021 to May 2021.

Varun Kelkar is a sincere and hardworking person and is committed to his work.

We wish him all the best in his future endeavors.

Regards,
On behalf of Radon Tech

Aniruddha Gohad,
CEO,
Radon Tech

Certificate From Guide

Acknowledgement

I am very glad to take this opportunity to acknowledge all those who helped me in designing, developing and successful execution of my Project.

"**Promising All Distribution Services**".

I would like to extend my thanks and gratitude to my project guide Dr. Swapnaja Patwardhan (Assistant Professor, IMCC) – Internal Guide and Mr. Suyash Joshi - External Guide for their valuable guidance and timely assistance throughout the development of this project.

I would also like to extend my thanks and gratitude to Dr. Santosh Deshpande (Director, IMCC), Dr. Ravindra Vaidya (HOD, IMCC), Dr. Manasi Bhate (Head – Training and Placement, IMCC) and Dr. Swapnaja Patwardhan (Assistant Professor, IMCC and Class Coordinator - TYMCA) for their constant help and support.

Last but not the least, I would like to thank all the teaching and nonteaching faculties for their cooperation.

- Varun Kelkar

Index

Chapter 1: Introduction

Company Profile

Radon tech is a software company specializing in web and mobile application development. Radon Tech deliver product using latest, cutting-edge, technology stack.

What Radon Tech Do?

Radon Tech takes care of client’s products with keeping user experience, maintainability and performance mind.

Radon tech works on mainly:

- Web Designing
- Android Application

Front end:

React, Angular and Vue

Back end:

Node, Golang and .NET Core coupled with SQL and NoSQL databases

Mobile:

Flutter, Dart,

Mission:

Radon Tech’s mission is to provide customer a specialized, reliable, high-quality, sophisticated services with cost saving. Our customer must experience that working with

Radon Tech is more professional, less risky way to develop and implement project than working completely in-house.

Solutions:

Radon Tech envelops information solutions that enable your business users to access content from any source, seamlessly delivered to any device and with minimal disruption to your existing systems.

1.1 Existing System & Need for System

Existing System:

The process of purchase and sales is currently conducted manually and manual interaction between manufacturer and retailer has been carried out manually.

In the manual existing system following processes are done:

- Manufacturer supplies product to consumer by meeting them and fulfill their needs by interacting personally with consumers.
- Consumers went to manufacturer's place for ordering product which they want
- All records of sales and purchase order are kept manually by the manufacturer i.e. they keep records in a notebook.
- Inventory is also handled manually by inserting new products, updating products and deleting stock which is not available. All these are handled by the manufacturer which is very time consuming and complex to handle.
- Bill for every order is written by the manufacturer and they also keep records of bills by keeping them into files.

Need for System:

With current manual system following problems are faced by manufacturer:

- They have to keep detail of retailer/consumers manually which is very difficult and complex to handle.

- In manual process, retailers have to meet manufacturer and then they order their products.
- Keeping records of each retailer becomes impossible because of lots of space required to store paper forms.
- Searching of desired product on demand of retailers or consumers becomes very difficult task as they have to go through each and every product item.
- Process of purchase and sale become difficult to maintain
- Manual process is more time consuming than the automated system.

1.2 Scope of Work

Proposed system is to be implemented for the organization which is android application. The application is develop to speed up the processes, improve efficiency, data integrity and better error handling.

The scope of the system can be discussed with the help of following points:

- Registering retailers, manufacturers whenever they want to placed any order. After registering to the application user retailer have to login to the application after that retailer will get one OTP on their mobile number.
- Manufacturer will handle the inventory of products i.e. manufacturer can add new product, can able to update inventory whenever there is need also can delete product which are no more in use.
- Retailer can choose category of the product as they want as per their requirement.
- Admin will get their username and password for accessing application.
- Manufacturer can also act as retailer i.e. manufacturer can able to switch to retailer whenever needed.
- When retailer request for any product manufacturer have right to accept of denied the request.

1.3 Operating Environment – Hardware & Software

Hardware:

1. Processor : intel core i3 processor
2. RAM : 500MB
3. Hard Disk : 20GB

Software:

Client Side:

1. Operating System : windows 10
2. IDE: Android studio / Visual Studio Code
3. Android emulator
4. Dart and flutter extension

Server Side:

1. Operating system: windows 10
2. .Net Core

1.4 Detail description of Technology Used :

1. **Flutter:**

- Flutter is an app SDK for building high-performance, high-fidelity apps for iOS, Android, web and desktop from a single codebase.
- The goal is to enable developers to deliver high-performance apps that feel natural on different platforms. We embrace differences in scrolling behaviors, typography, icons and more.
- Advantages of flutter:
    - Be highly productive:
        - Develop for iOS and android from single codebase.
        - Do more with less code, even on single iOS with a modern, expressive language and declarative approach.
    - Create beautiful, highly customized user experiences.
- Flutter consists of widgets which are building blocks of a Flutter app's user interface. A widget can define:
    - A structural element (like a button or a menu)
    - A stylist element (like a font or color scheme)
    - An aspect of layout (like padding)

2. **Dart:**

- You can use Dart to write simple scripts or full-featured apps. Whether you’re creating a mobile app, web app, command-line script, or server-side app, there’s a Dart solution for that.
- Flutter apps are written in the Dart language and make use of many of the language's more advanced features.
- On Windows, macOS and Linux via the semi-official Flutter Desktop Embedding project, Flutter runs in the Dart virtual machine which features a just-in-time execution engine.
- Flutter uses Just in Time compilation, allowing for "hot reload", with which modifications to source files can be injected into a running application.

3. **.NET Core:**

- .NET Core is the latest general purpose development platform maintained by Microsoft.
- It works across different platforms and has been redesigned in a way that makes .NET fast, flexible and modern.
- .NET Core happens to be one of the major contributions by Microsoft.
- Developers can now build Android, iOS, Linux, Mac, and Windows applications with .NET, all in Open Source.
- Features of .NET Core:
  - Open source

- Cross-platform
- Flexible deployment
- Command line tools

Chapter 2: Proposed System

2.1 Proposed system:

PADS (Promising All, Distribution Services) is android based application designed to manage processes between manufacturer and retailer, which reduce time consumption of manual interaction with the process as well as it brings accuracy and transparency in the system's process. This makes organization's record keeping easier and highly manageable. Big drawback of such organization is no central data maintained for the future use.

PADS is designed to manage, maintain and access the information of manufacturer, retailer, products, category of products, bills and so on. The main purpose of this application is to register new retailers and manufacturer can able to access all data any time anywhere.

By this system, this information will be accessible to all users from anywhere and that's why we have designed this web-based system.

End users of this application are:

1. Manufacturers/Providers
2. Retailers/Consumers
3. Admin

2.2 Objectives of System

Because of manual process involved in the current system, there are lots of problems that end users i.e. retailers, manufacturer and admin of the entire system are facing. To resolve these problems following features are provided by system:

- No manual work for any process will be there.
- No manual interaction needed to understand retailer's requirement.
- Creating and maintaining inventory should be very easy process.
- Retailers can order their products by registering to the application and then they can search for required products
- User interfaces are designed in such a way that end users should not need to learn any new thing to handle the system.
- Pages of application should be same for all end users to get used to with these kinds of pages and can use the system easily.
- Maintaining records and history should be strong enough and flexible to handle large amount of data.
- Very less possibility of misuse of the system is because of strong validation of each record is to be implemented in the system.

2.3 User Requirement

Admin:

- Admin will have unique credentials to access all the data.
- Admin side menu will contain
    - Manufacturer
    - Retailers
    - Orders
    - Logout

Manufacturer:

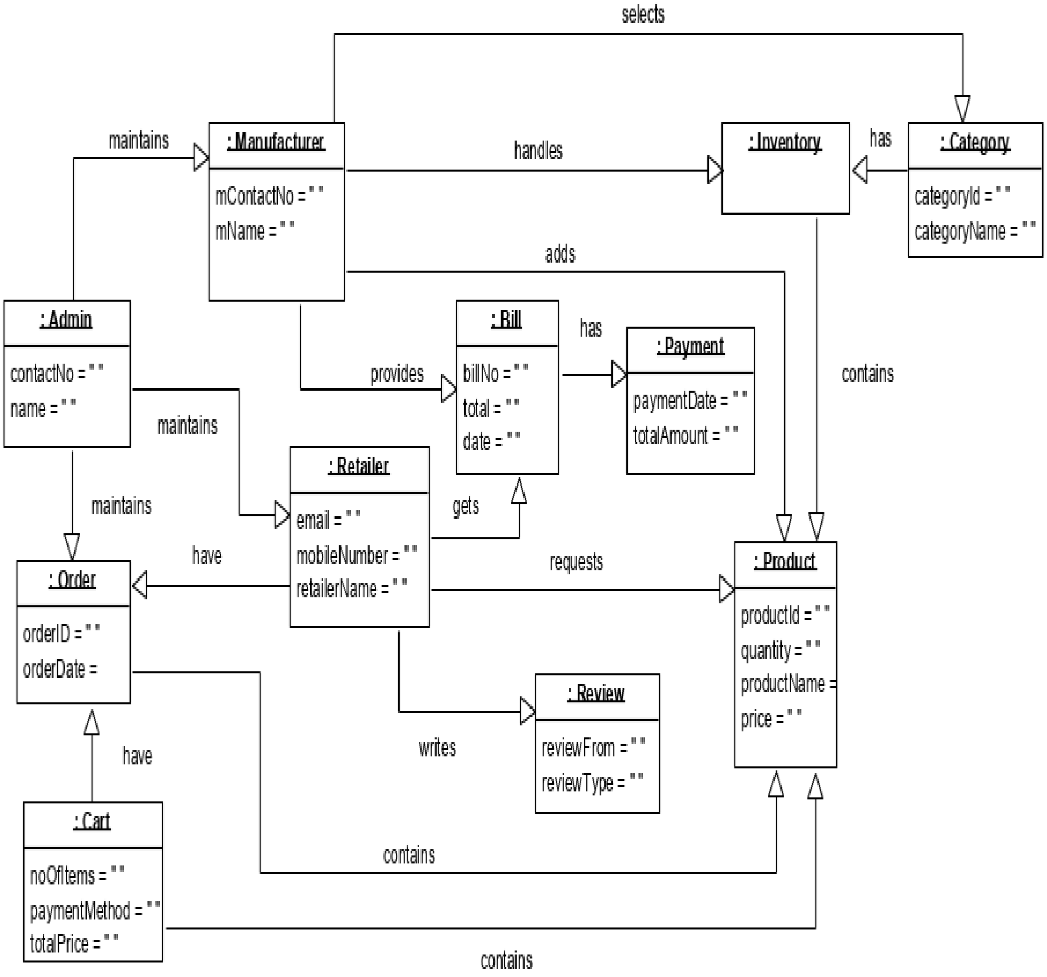
- The manufacturer will be able to see the number of items he has made available.
- The manufacturer will be able to see the list of his products and will able to filter them.
    - The list of products and their current available quantity.
    - The user will be able to edit chosen products.
        - Edit Name
        - Quantity
    - The user will be able to add new products by clicking a '+' sign.

Retailer:

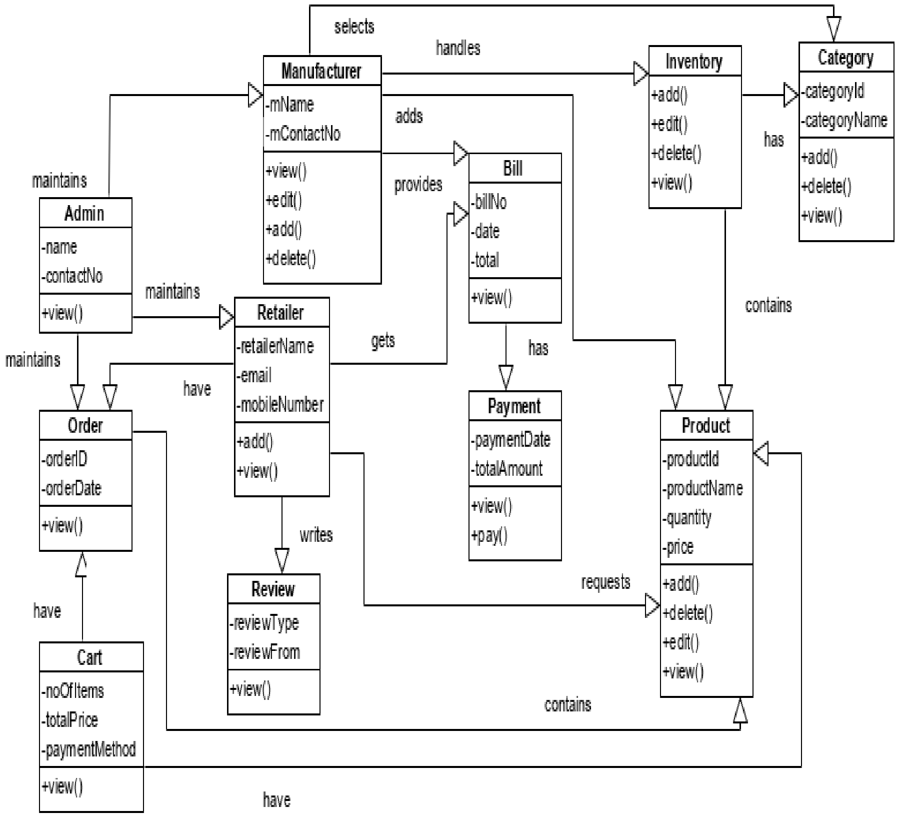
- The retailer will be shown filterable list of relevant manufacturer. Clicking on the manufacturer will take the user to the manufacturers' product list page.
- Each item in the list will have
    - Name of company
    - Rating
    - Address
    - Categories of products manufactured
    - Add rating

Chapter 3: Analysis & Design

3.1 Object Diagram

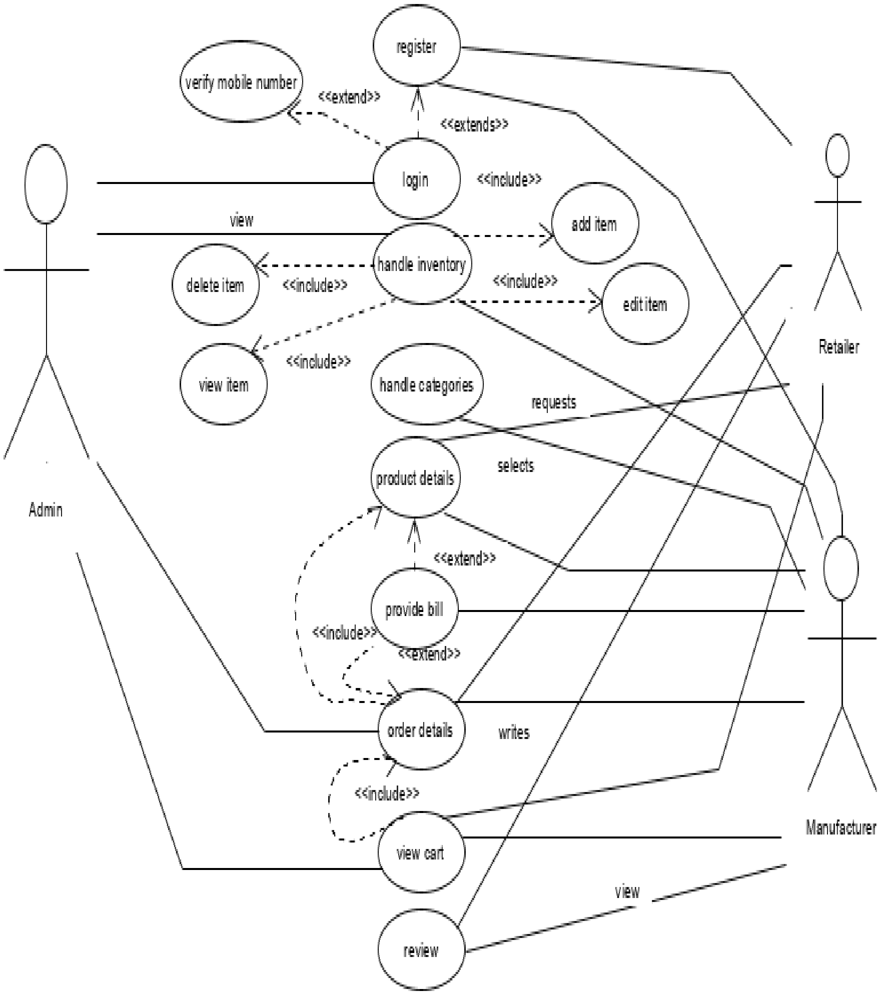


3.2 Class Diagram

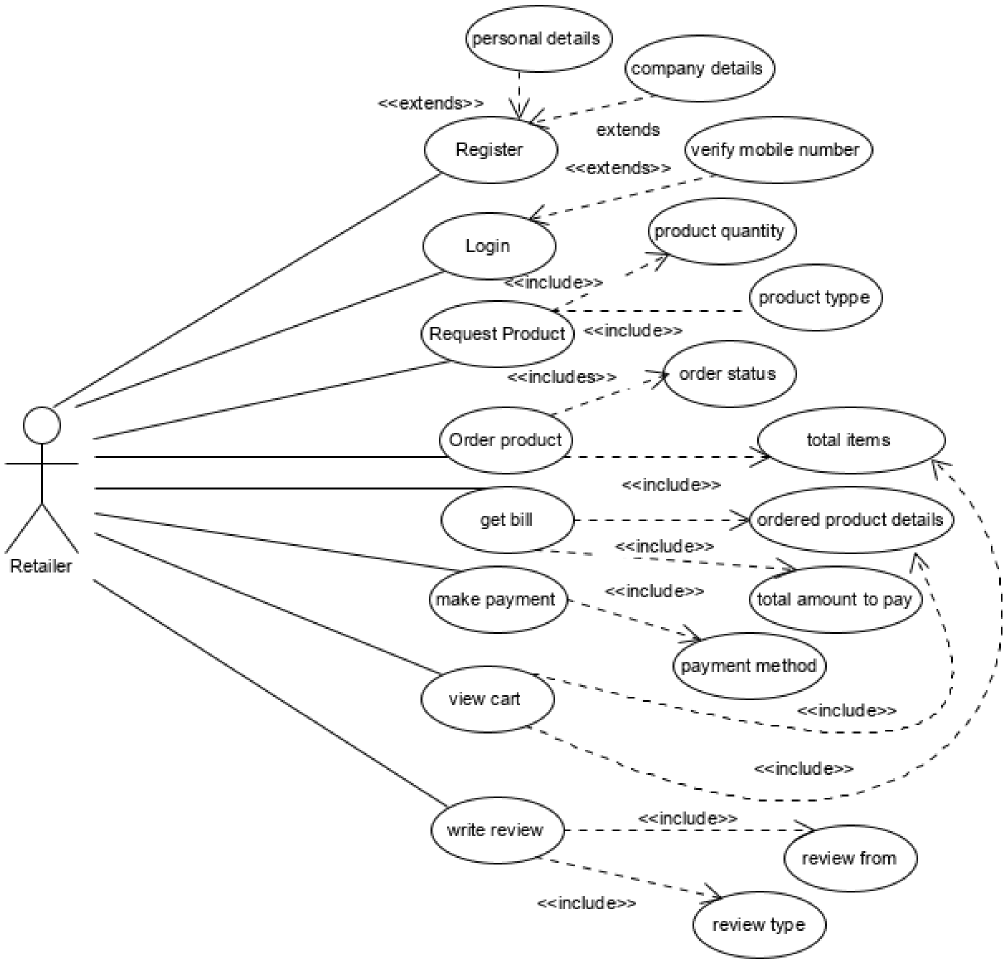


3.3 Use Case Diagrams

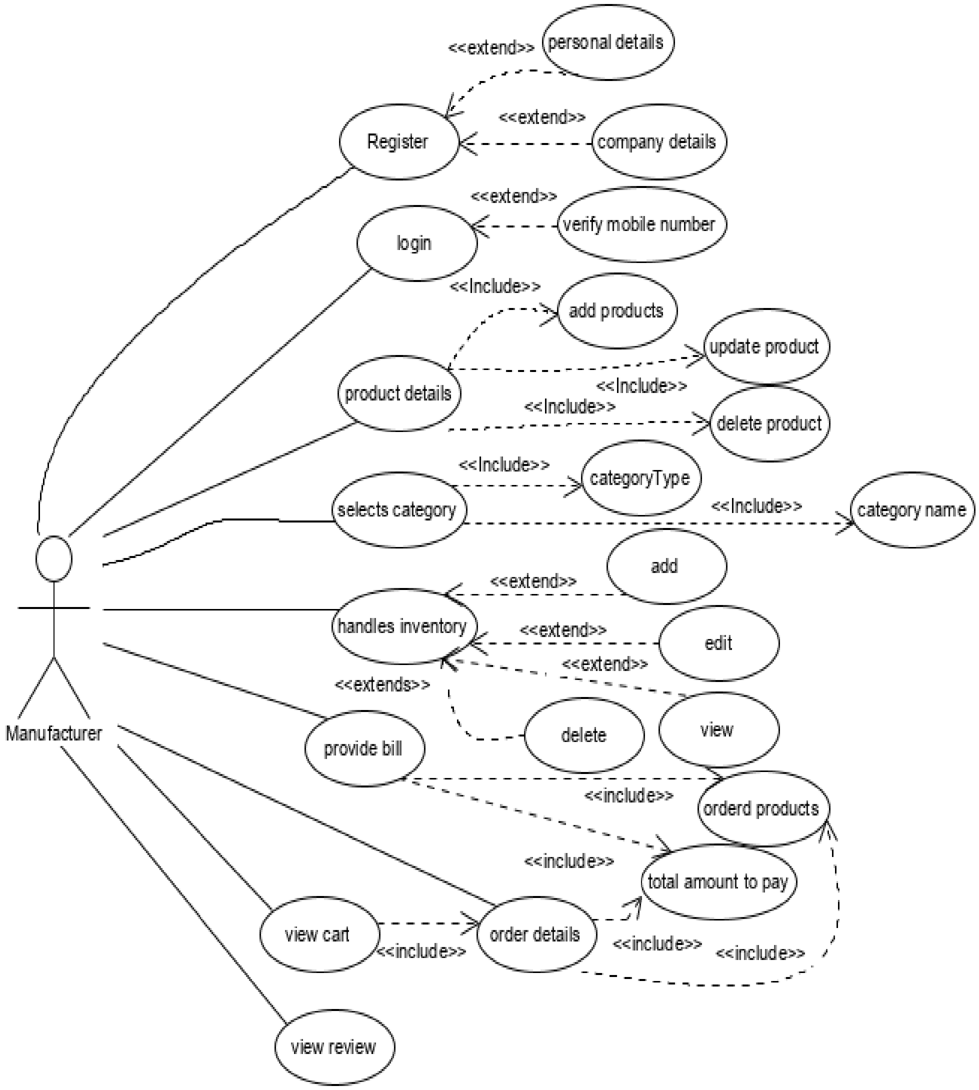
Entire System Use Case



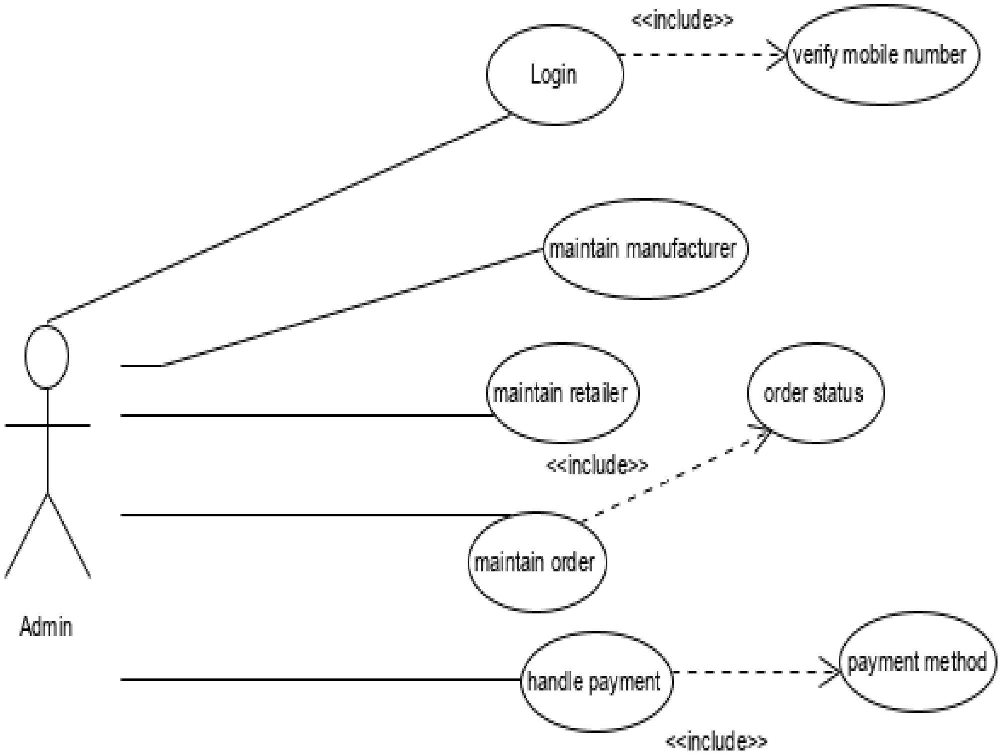
Retailer Use case



Manufacturer Use Case

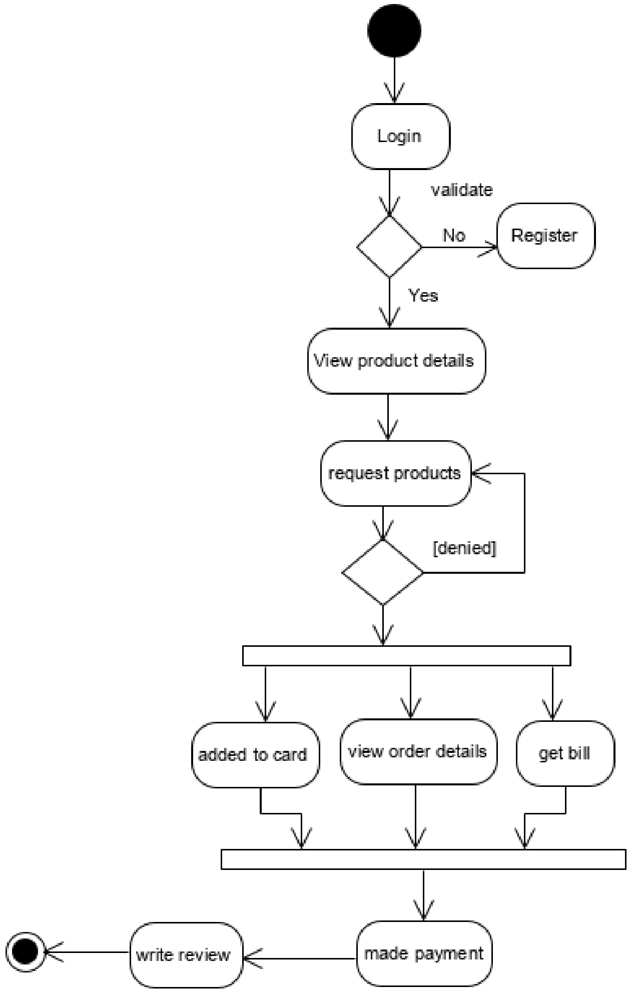


Admin Use Case Diagram

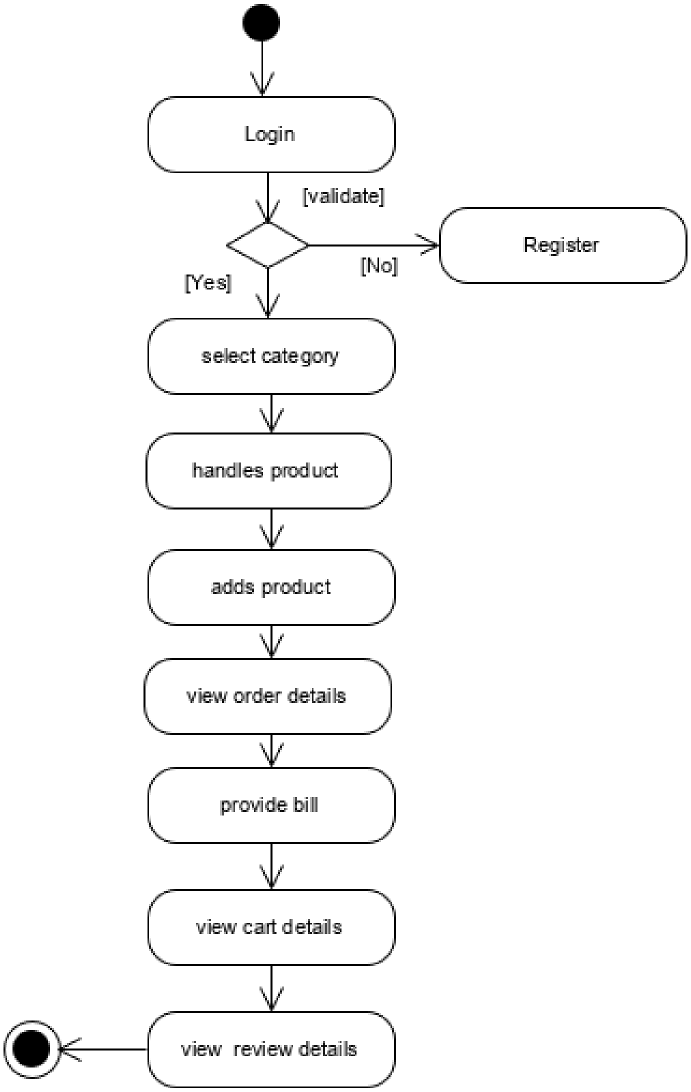


3.4 Activity Diagrams

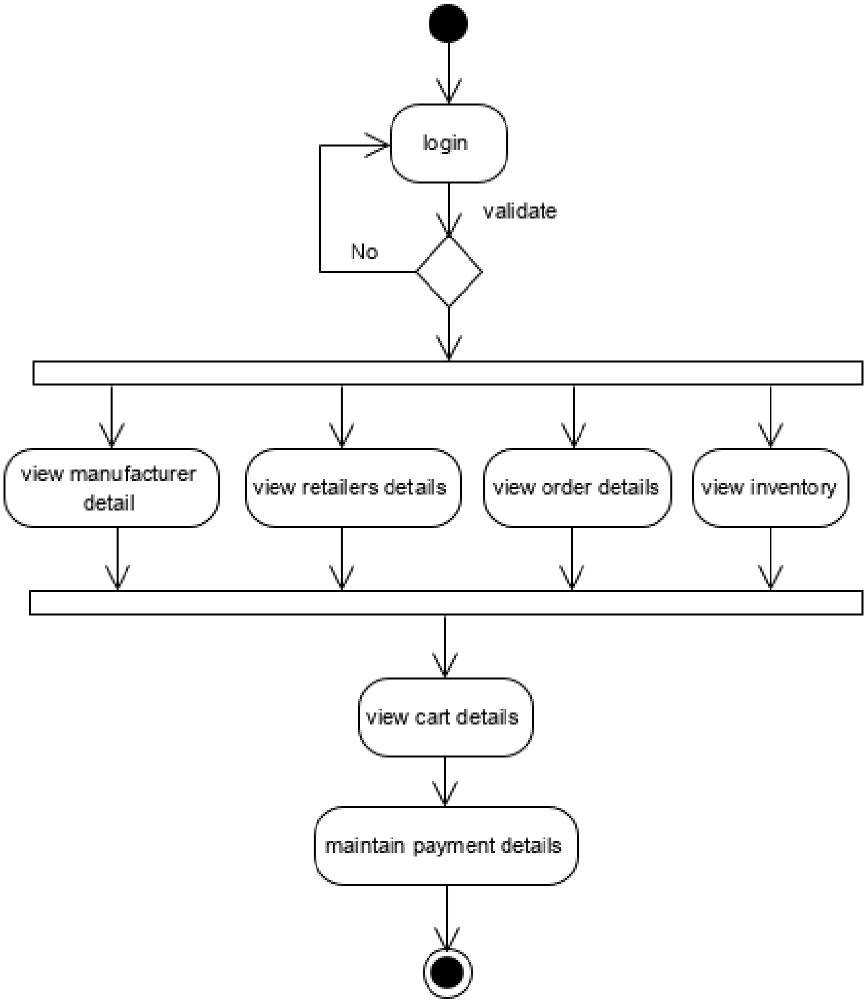
Retailer Activity Diagram



Manufacturer Activity Diagram

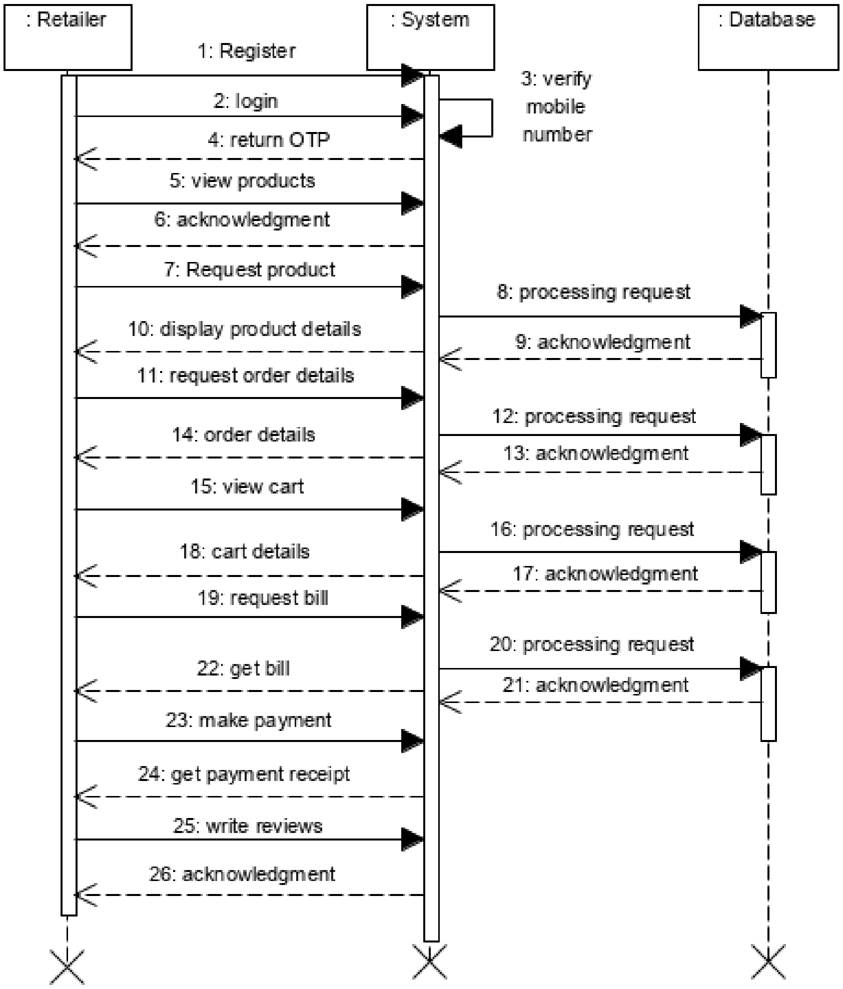


Admin Activity Diagram

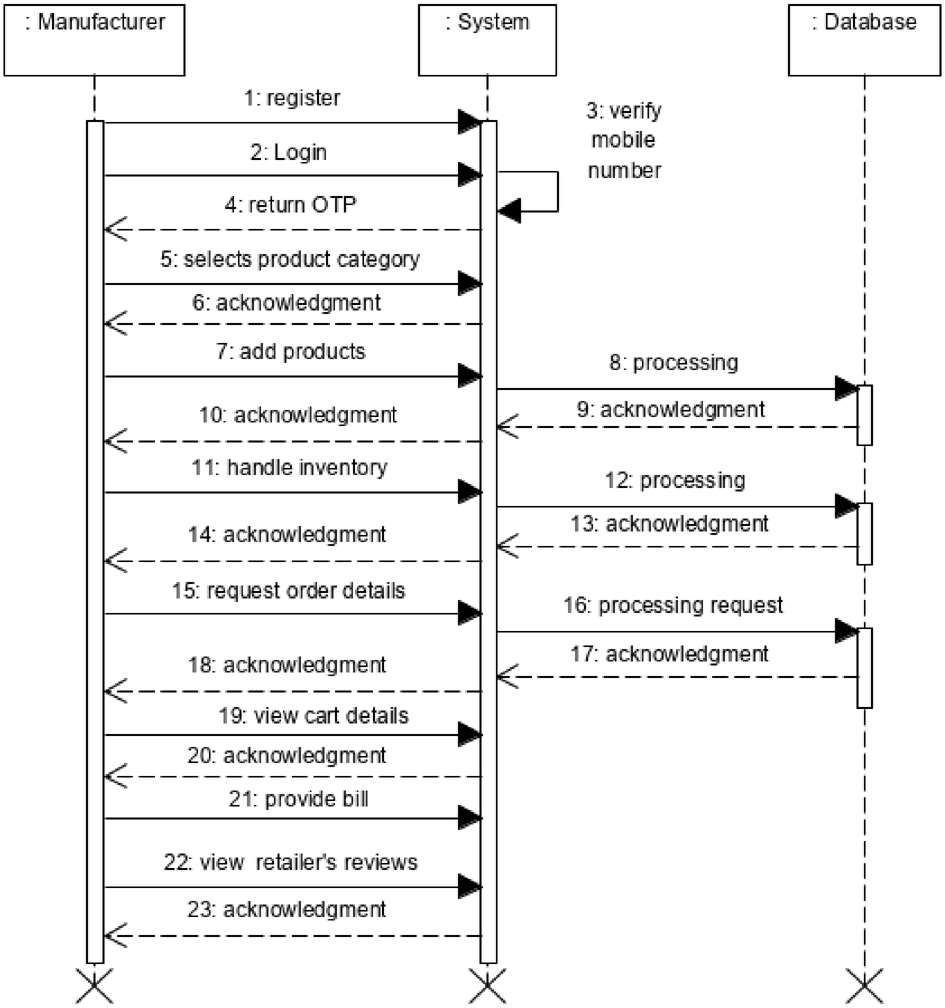


3.5 Sequence Diagrams

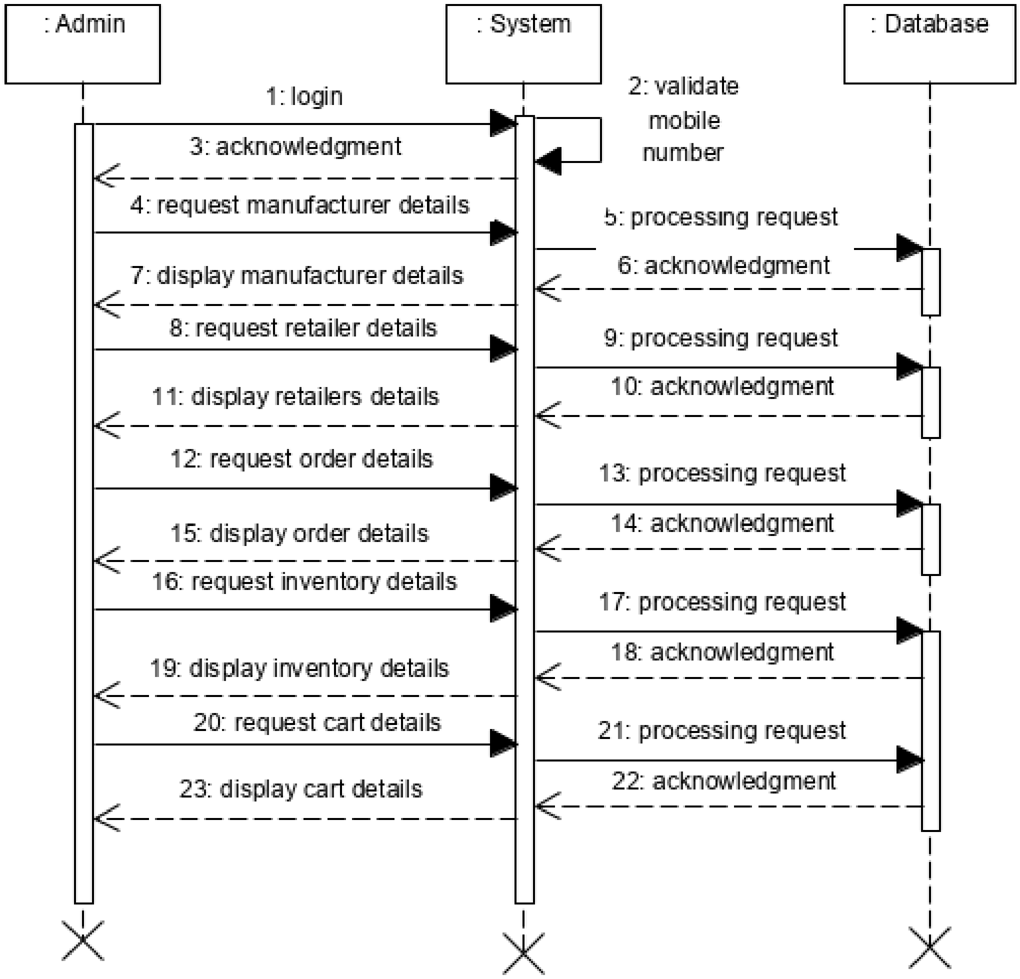
Retailer Sequence Diagram



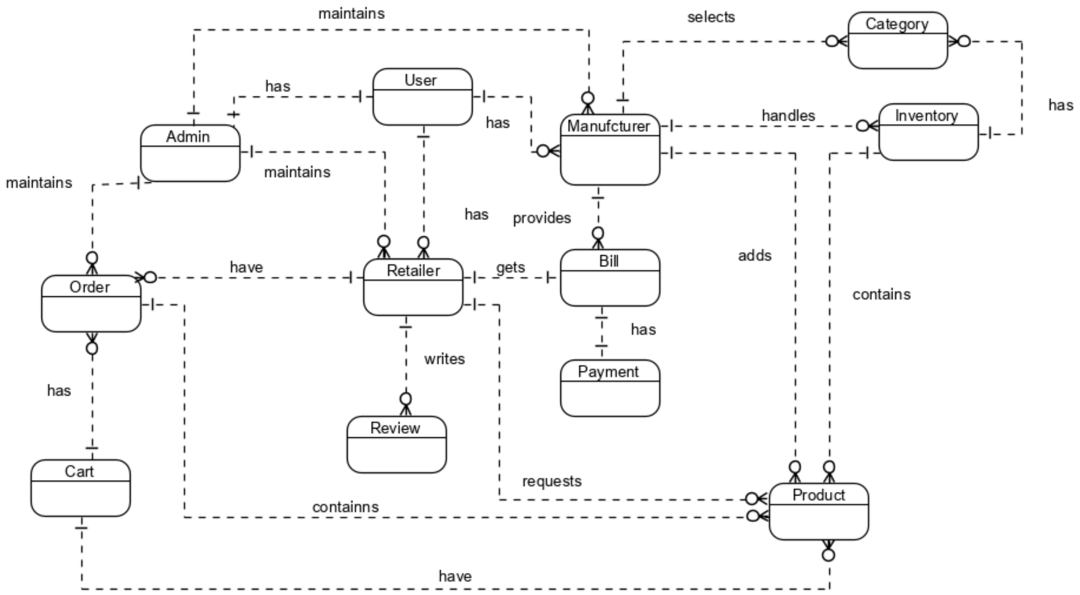
Manufacturer Sequence Diagram



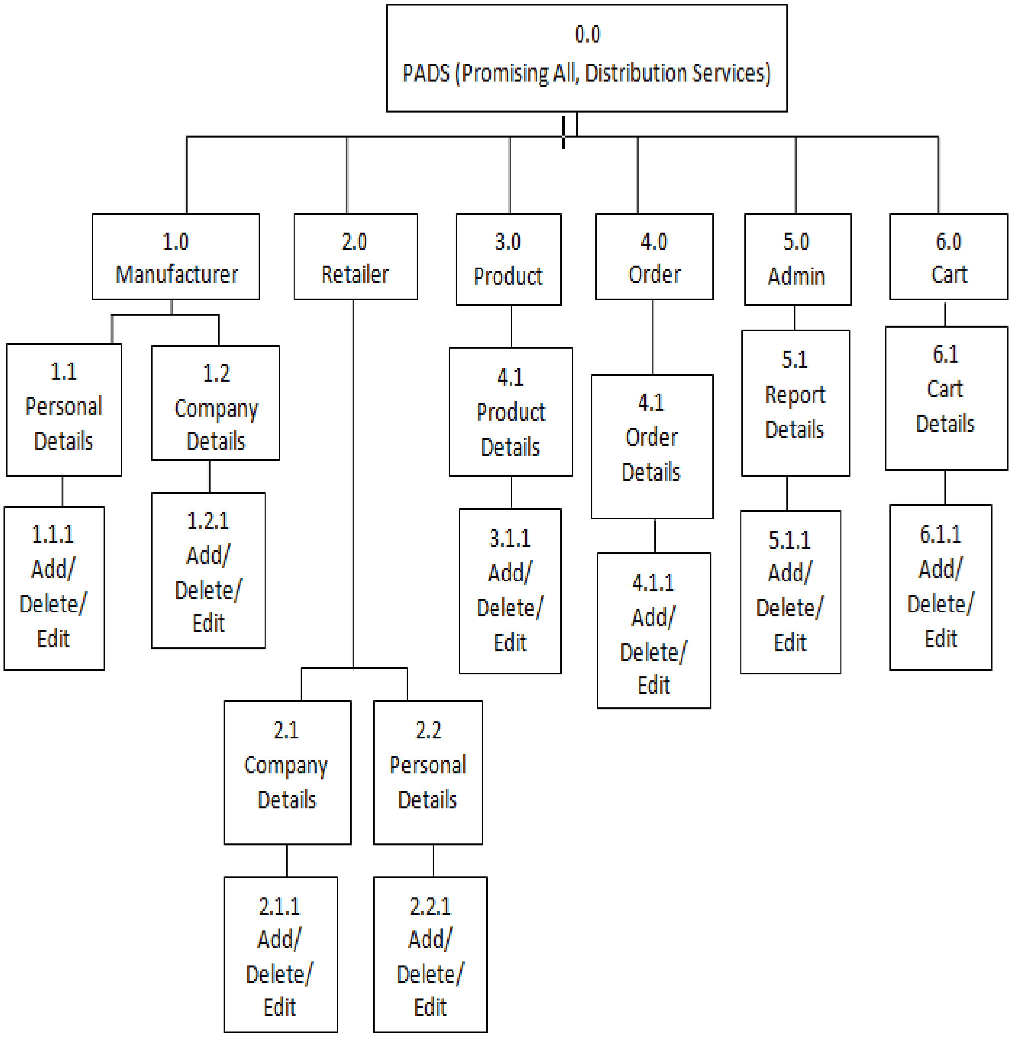
Admin Sequence Diagram



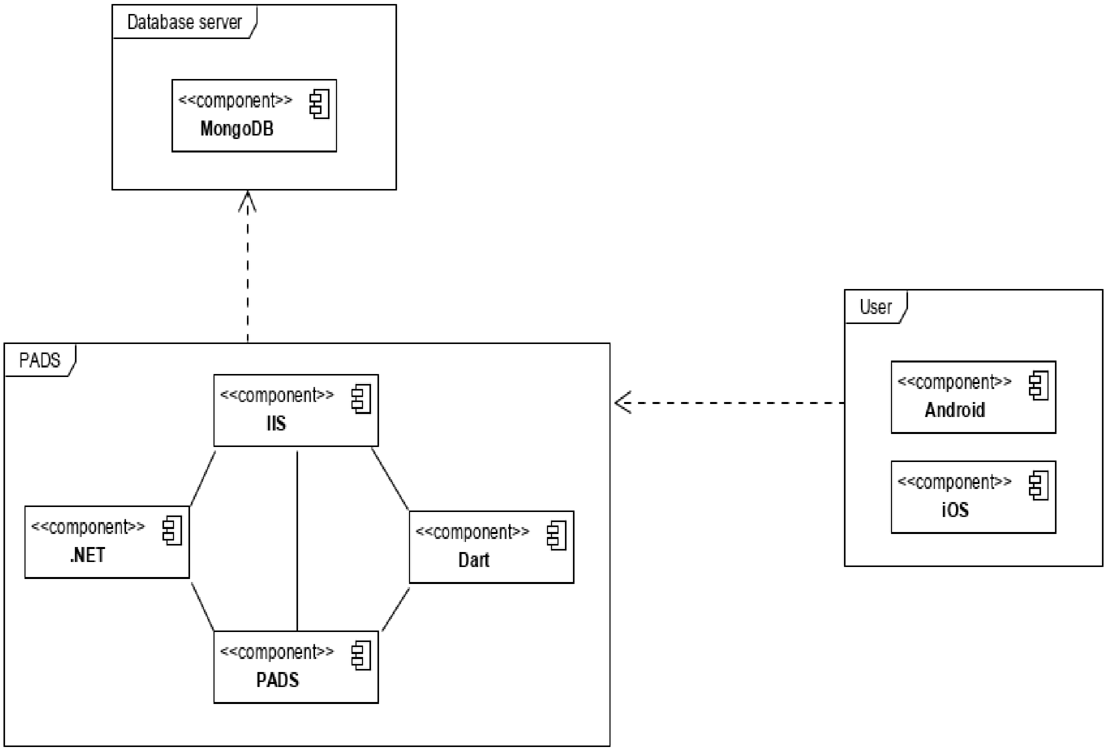
3.6 Entity Relationship Diagram



3.7 Module Hierarchy Diagram



3.8 Component Diagram



3.10 Module Specification

User:

- There are three types of users, mainly Retailers, Manufacturers.
- Retailer and manufacturer must register to application to use the application.
- Manufacturer can add products into inventory and retailer can buy them as per categories.
- Inventory can be managed by manufacturer.
- Retailer can give review to the bought product and manufacturer can view those reviews.

Login:

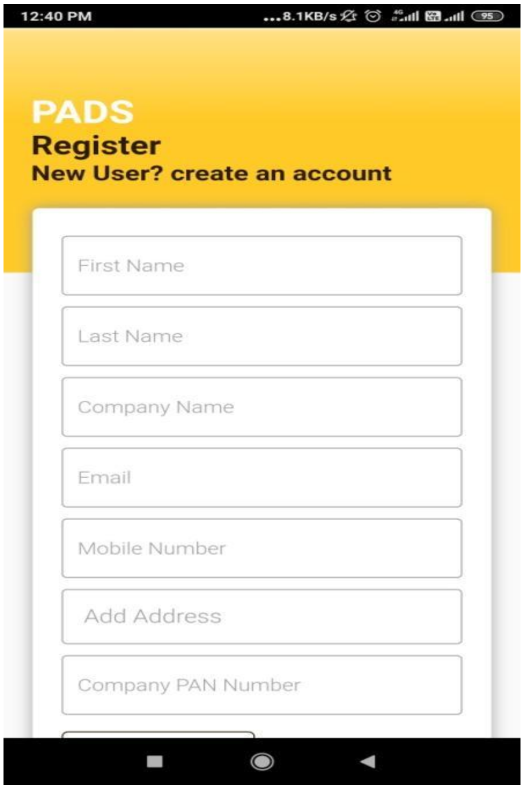
- It includes registration of retailers and manufacturers.
- User can register in this module and request products.
- Manufacturer can view request sent by retailers.

Admin:

- Admin can view the inventory which manufacturers handled.
- Admin can also view order details.
- Admin can manage retailer and manufacturers.

3.13 User Interface Design

Signup Page

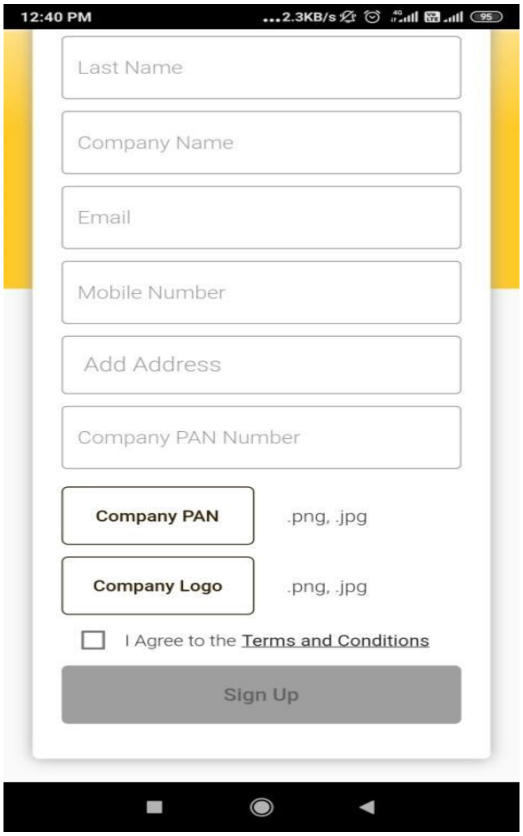


12:40 PM

PADS

Register

New User? create an account



Last Name

Company Name

Email

Mobile Number

Add Address

Company PAN Number

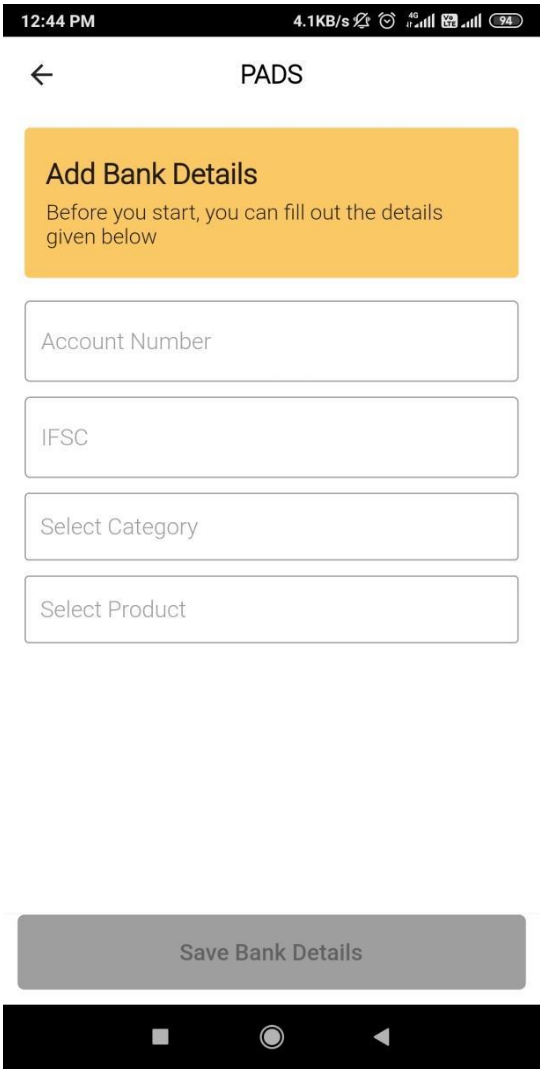
Company PAN .png, .jpg

Company Logo .png, .jpg

□ I Agree to the Terms and Conditions

Sign Up

Bank Details Screen



12:44 PM 4.1KB/s 94

PADS

Add Bank Details

Before you start, you can fill out the details given below

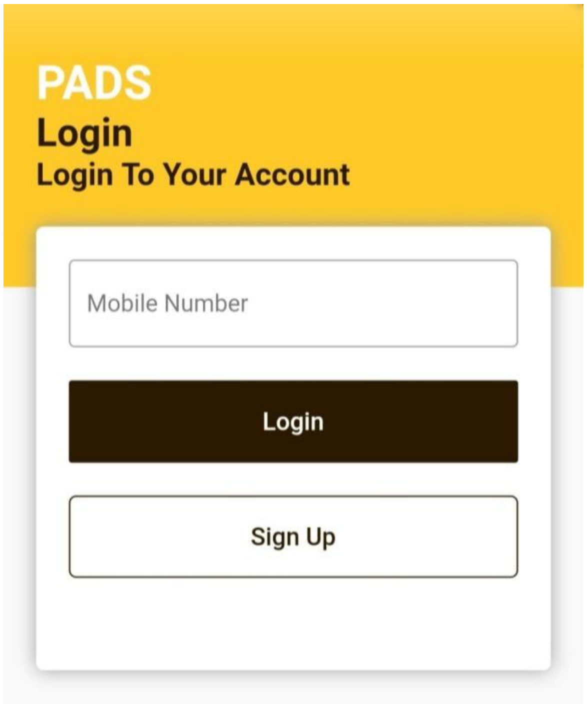
Account Number

IFSC

Select Category

Select Product

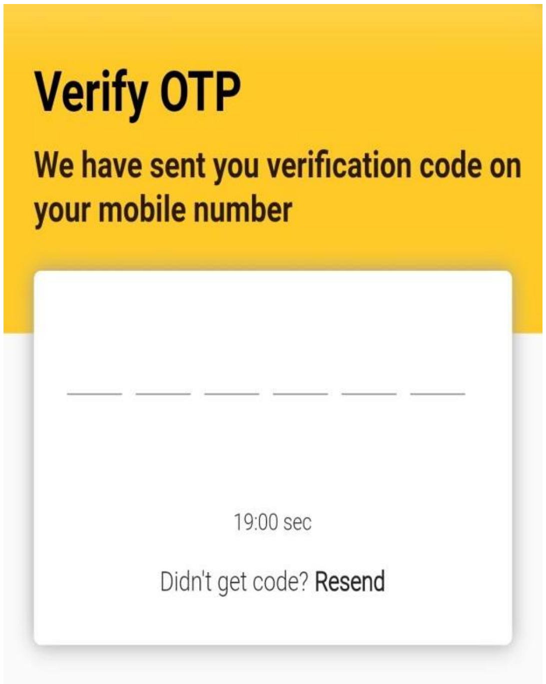
Login Page



PADS

Login

Login To Your Account



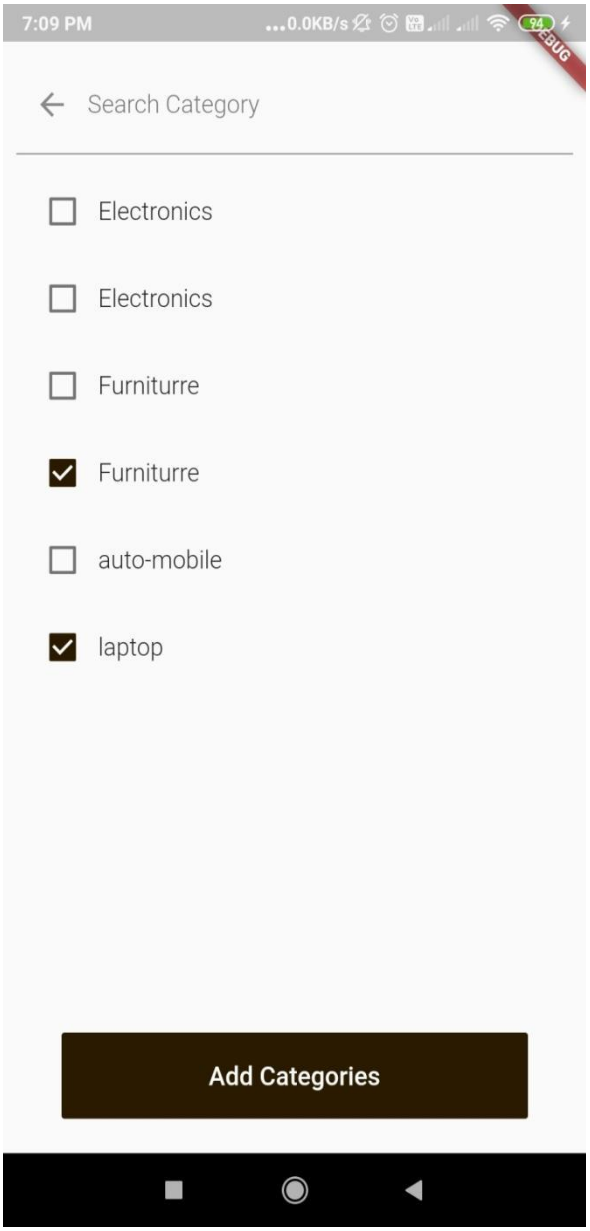
Verify OTP

We have sent you verification code on your mobile number

19:00 sec

Didn't get code? Resend

Select Category



☐ Electronics

☐ Electronics

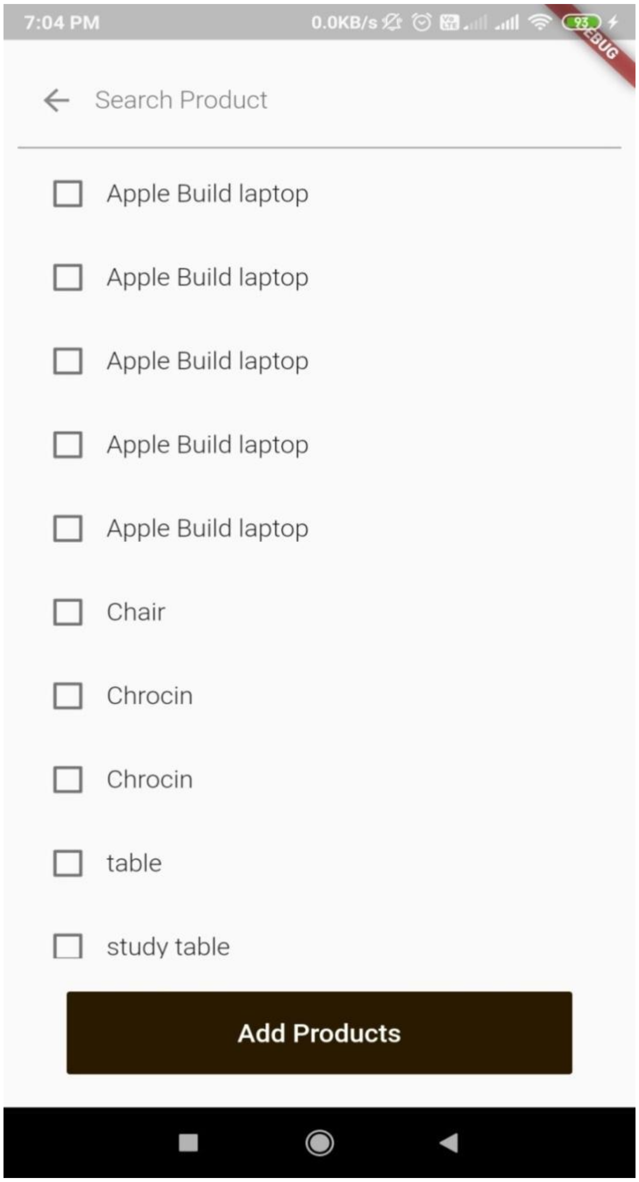
☐ Furniturre

☑ Furniturre

☐ auto-mobile

☑ laptop

Select Product Page



□ Apple Build laptop

□ Apple Build laptop

□ Apple Build laptop

□ Apple Build laptop

□ Apple Build laptop

□ Chair

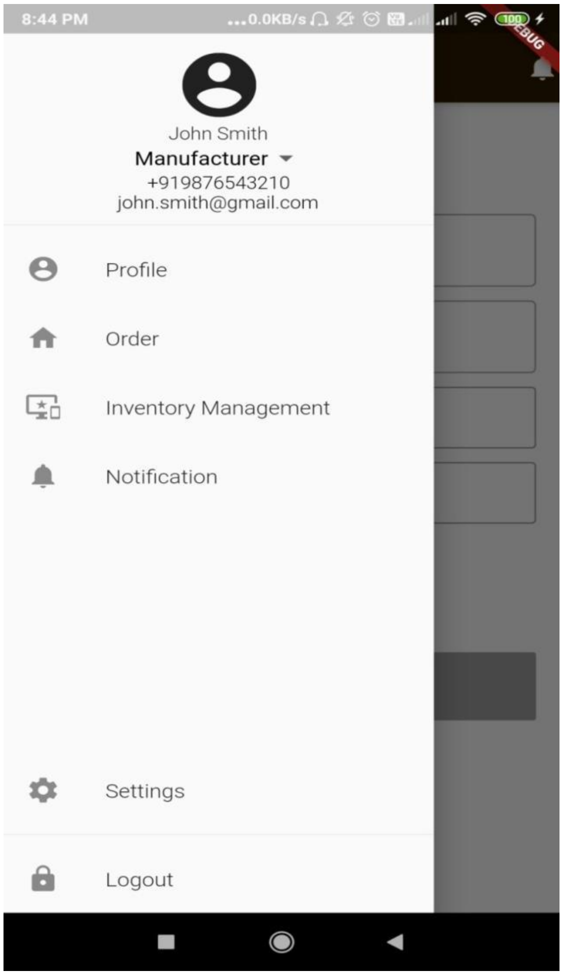
□ Chrocin

□ Chrocin

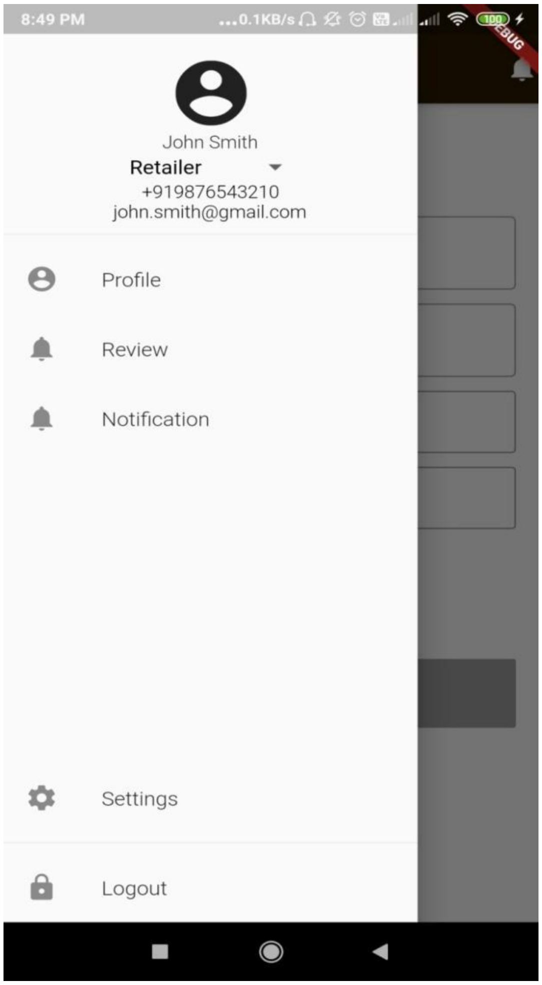
□ table

□ study table

Manufacturer’s Profile Screen


John Smith
Manufacturer
+919876543210
john.smith@gmail.com

Retailers Profile Screen



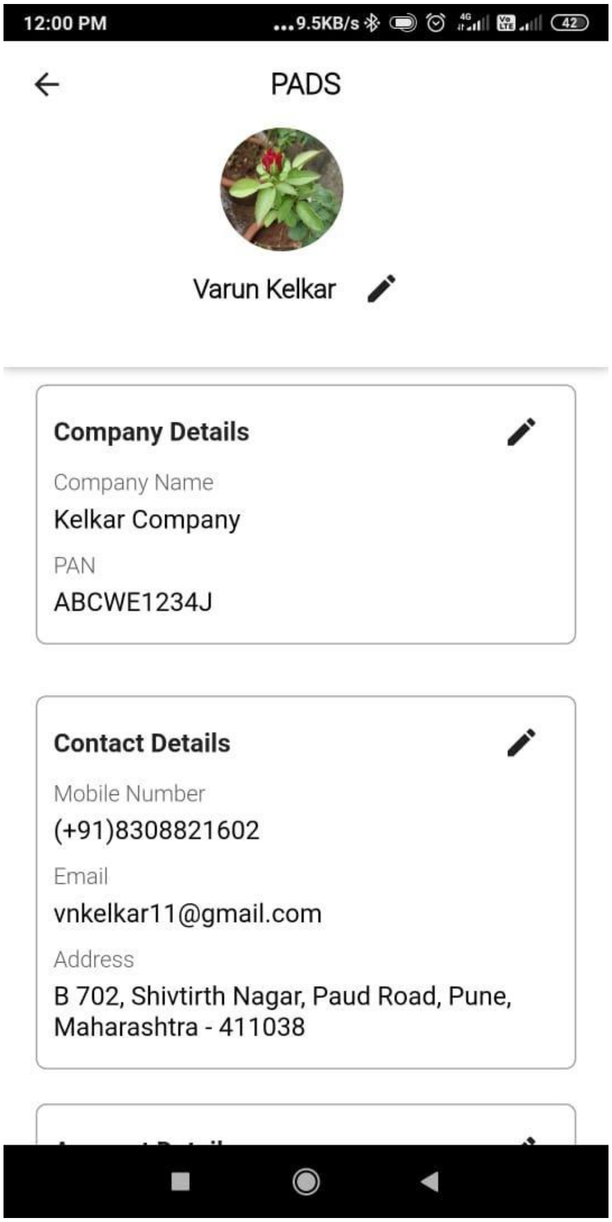
John Smith

Retailer

+919876543210

john.smith@gmail.com

Profile Page



12:00 PM

PADS

Varun Kelkar

Company Details

Company Name

Kelkar Company

PAN

ABCWE1234J

Contact Details

Mobile Number

(+91)8308821602

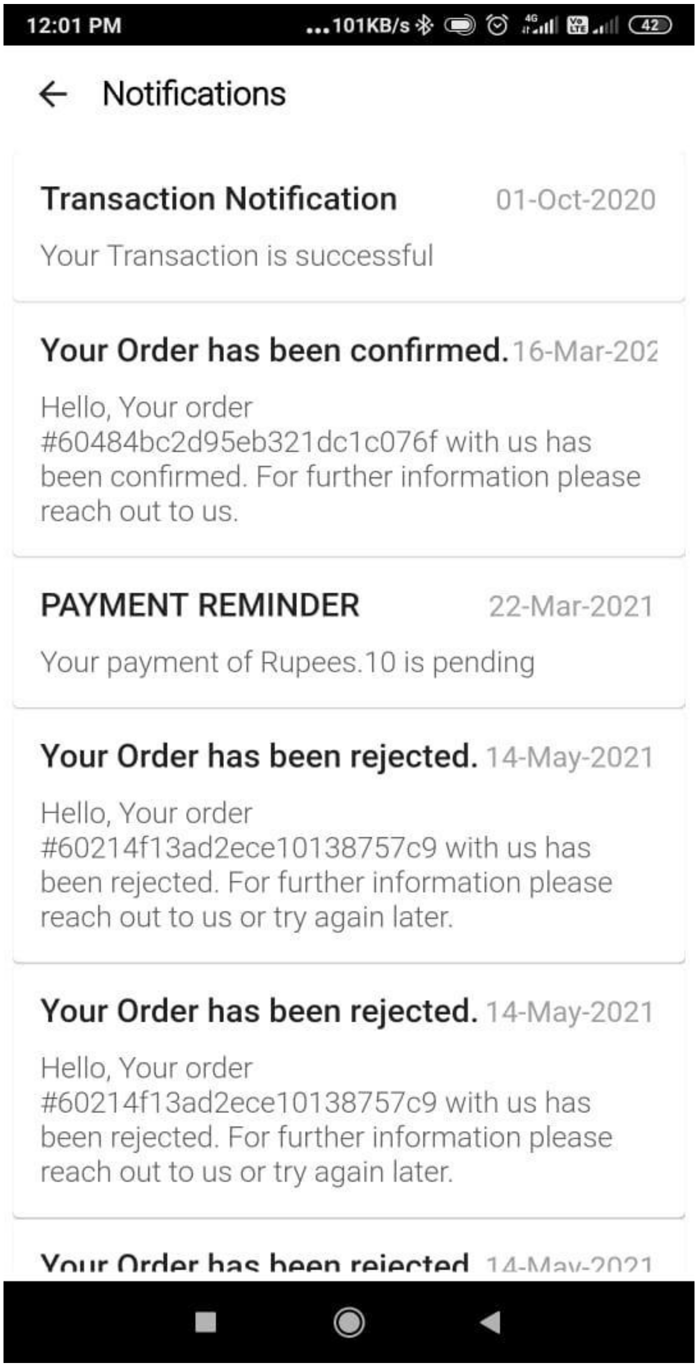
Email

vnkelkar11@gmail.com

Address

B 702, Shivtirth Nagar, Paud Road, Pune, Maharashtra - 411038

Notifications Page



Transaction Notification 01-Oct-2020

Your Transaction is successful

Your Order has been confirmed. 16-Mar-202

Hello, Your order #60484bc2d95eb321dc1c076f with us has been confirmed. For further information please reach out to us.

PAYMENT REMINDER 22-Mar-2021

Your payment of Rupees.10 is pending

Your Order has been rejected. 14-May-2021

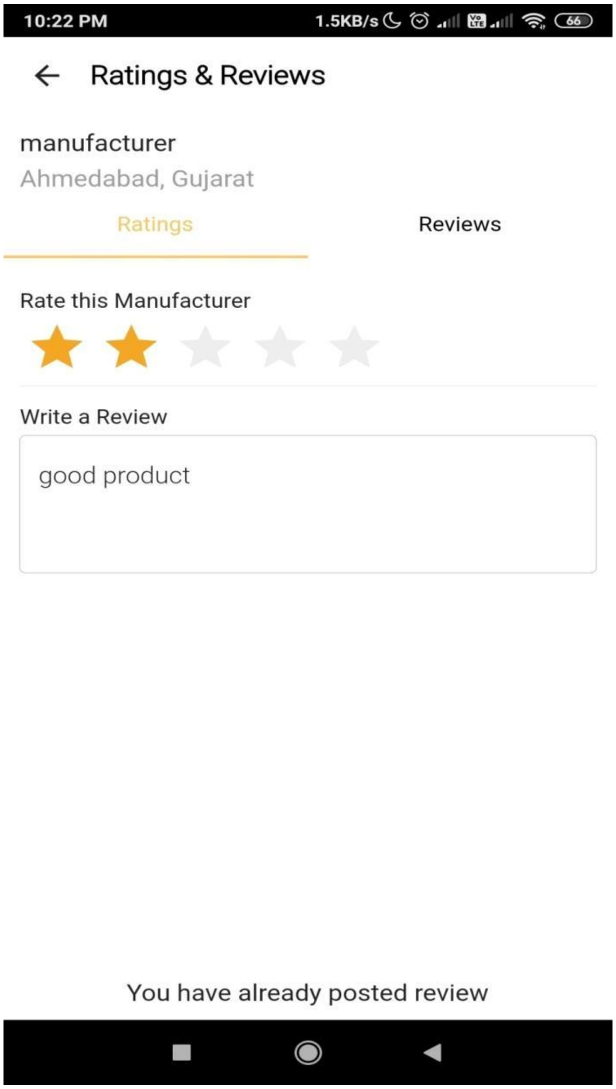
Hello, Your order #60214f13ad2ece10138757c9 with us has been rejected. For further information please reach out to us or try again later.

Your Order has been rejected. 14-May-2021

Hello, Your order #60214f13ad2ece10138757c9 with us has been rejected. For further information please reach out to us or try again later.

Your Order has been rejected 14-May-2021

Review Page



Ratings & Reviews

manufacturer

Ahmedabad, Gujarat

Rate this Manufacturer ★★☆☆☆

Write a Review: good product

You have already posted review

3.14 Data Dictionary

Sr. No	Field Name	Data Type(Width)	Description
	account_number	int(12)	user account number
	amountDue	int(5)	payment amount due
	amountDueFrom	varchar(20)	payment due from
	amountDueTo	varchar(20)	payment due to
	amountReceived	int(5)	amount received
	company_address	varchar(100)	user’s company address
	company_logo_url	varchar(50)	company logo URL
	company_name	varchar(30)	user’s company name
	company_pan	int(10)	user company’s PAN number
	company_pan_image_url	varchar(50)	user’s company PAN card image URL
	email_address	varchar(20)	user’s email address
	first_name	varchar(20)	user’s first name
	ifsc	int(11)	user’s bank IFSC number
	last_name	varchar(20)	user’s last name
	mobile_no	int(10)	user’s mobile number
	orderAmount	int(5)	total amount of order
	orderedDate	date	date of order
	orderFrom	varchar(20)	order from whom
	ordered	int(5)	order ID
	orderQuantity	int(5)	quantity of product ordered
	orderTo	varchar(20)	order to whom

	otp	int(6)	after login getting unique otp
	paymentDate	date	date of payment
	paymentFrom	varchar(20)	payment received from
	paymentMethod	varchar(20)	method of payment
	paymentStatus	varchar(20)	status of payment
	productDescription	varchar(50)	product description
	productId	int(5)	product ID
	productName	varchar(20)	name of product
	productQuantity	int(10)	quantity of product
	productRate	int(10)	rate of the product
	productRating	varchar(20)	rating of product
	terms_conditions	boolean	if checked true else false
	cart_id	int	cart ID
	payment_id	int	payment ID

3.15 Table Specification

1. user table			
Field Name	**Data Type**	**Width**	**Constraints**
first_name	varchar	20	not null
last_name	varchar	20	not null
email_address	varchar	20	not null
mobile_no	int	10	not null
company_name	varchar	20	not null
company_address	varchar	50	not null
company_pan	varchar	10	not null
company_pan_image_url	varchar	50	not null
company_logo_url	varchar	50	nut null
terms_conditions	boolean		not null
otp	int	6	not null
account_number	int	12	not null
ifsc	int	11	not null

2. Role table			
Field Name	**Data Type**	**Width**	**Constraints**
userRole	varchar	20	not null

3. Product table			
Field Name	**Data Type**	**Width**	**Constraints**
productId	int	5	primary key
productName	varchar	20	not null
productDescription	varchar	50	not null
productQuantity	int	10	not null
productRate	int	10	not null
productRating	varchar	10	not null

4. Order table			
Field Name	**Data Type**	**Width**	**Constraints**
ordered	int	5	primary key
orderQuantity	int	5	not null
orderTo	varchar	20	not null
orderFrom	varchar	20	not null
orderedDate	date		not null

orderAmount	int	5	not null
orderStatus	Varchar	20	not null
paymentStatus	varchar	20	not null
paymentMethod	varchar	20	not null

5. Payment table			
Field Name	**Data Type**	**Width**	**Constraints**
payment_id	int	5	Primary key
paymentFrom	varchar	20	not null
amountReceived	int	5	not null
paymentDate	date		not null
amountDue	int	5	not null
amountDueFrom	varchar	20	not null
amountDueTo	varchar	20	not null
paymentMethod	varchar	20	not null

6. Cart table			
Field Name	**Data Type**	**Width**	**Constraints**
cart_id	int	10	Primary key
noOfProducts	int	5	not null
ordered	int	5	foreign key
paymentMethod	varchar	20	not null

3.16 Test Procedures and implementation

Software testing is a critical element of software quality assurance and represents the ultimate review of specifications, design and coding. Testing presents an interactive anomaly for the software engineers. The increasing visibility of software quality assurance and attendant costs associated with software failure always were the motivating force for well planed through testing. Well planned and thorough testing is required to deliver a good application.

Testing of application includes:

Verify that it behaves “as specified”.

Detect errors.

Validate whether the outputs are as expected.

[Validation: are we building a right product.]

Verification is the checking or testing of items, including application for confirmation and consistence by evaluating the results against pre-specified requirements.

[Verification: are we building product right?]

Error detection: testing should internally attempt to make the application take extreme values, so that we can find out our boundary values. This way we can find the errors in our system.

Validation looks at the application corrections – i.e. the process of checking that what was has been specified is what the user wanted.

Testing principles:

Some of Testing Principles followed can be given as:

- Testing plan and schedules were prepared and incorporated in overall project development.
- The results and reports were prepared and rectification of bugs was also worked out as per test plan.

Testing Procedures:

Testing of application was basically done with the help of developer. All care was taken so that the application did not violate any memory constraints. After porting the application into the module if some bugs were reported they were then cleared taking into consideration the module environment.

Test Cases

Sr. No	Function to be tested	Initial application state	Input	Expected output	Remarks
1.	Invalid mobile number	Login page is displayed	1. Enter invalid mobile number 2. Press login button	"Mobile number must be of 10 digits" is displayed.	Pass

Sr. No	Function to be tested	Initial app state	Input	Expected output	Remarks
2	Blank Entry for compulsory fields.	Display entry page.	1. Leave blank. 2. Press enter.	'xxx field cannot be blank' is displayed.	Pass
3	TextFormField which takes number as input	Display entry page.	1. Enter any alphabet. 2. Press enter.	'xxx field only contains numbers' is displayed.	Pass
4	TextFormField which takes alphabet as input.	Display entry page.	1. Enter any number. 2. Press enter.	'xxx field only contains alphabet' is displayed.	Pass
5	TextFormField which takes email address as input.	Display entry page.	1. Enter email id without. (dot) or @ in field. 2. Press Enter.	'Email id is not valid' is displayed.	Pass

6	TextFormField which takes IFSC code as input.	Display entry page.	1. Enter IFSC without 0(zero). 2. Press enter.	'Invalid IFSC' is displayed.	Pass
7	TextFormField which takes account number of 12 digits.	Display entry field.	1. Enter digits less than 12. 2. Press enter.	'Enter 12 digit account_no' is displayed.	Pass
8	Length for mobile number	Display entry field.	1. Enter mobile number less than 10 digits. 2.Press enter.	'Enter 10 digit mobile number' is displayed.	Pass
9	PAN number	Display entry field.	1. Enter PAN alphabet with lowercase.	'Invalid PAN number' is displayed.	Pass

Chapter 4 – User Manual

4.1 User Manual

Users of the application are:

1. Admin
2. Retailers
3. Manufacturer

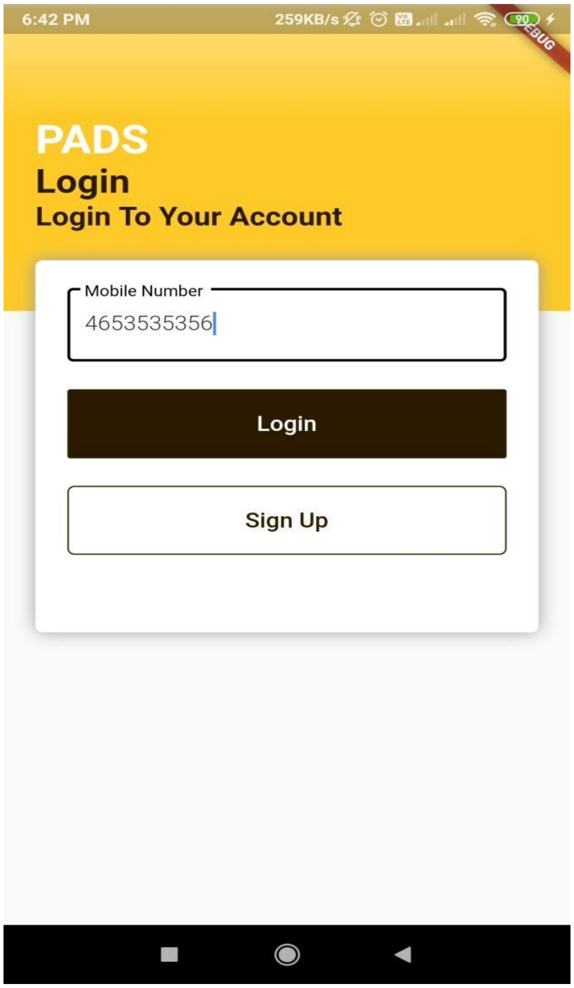
Getting started:

Steps to setup the application:

1. Install Android Studio for SDK and download emulator for running app.
2. Add “dart and flutter extension” in the VS code or android studio.
3. Install MongoDB for database server.
4. Install node js and install npm where database server folder created using command/terminal using “npm i” command.
5. Run mongo server using “npm run start”.
6. Run application on emulator or on mobile phone by selecting device as per your choice.

4.2 Operations Manual/ Menu Explanation

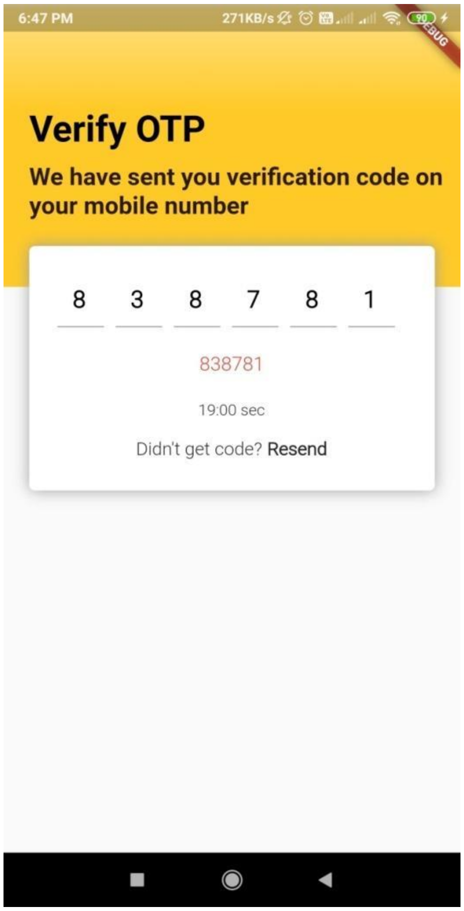
Login page:



Mobile Number: 4653535356

1. Enter Mobile Number

OTP Page:



Verify OTP

We have sent you verification code on your mobile number

8 3 8 7 8 1

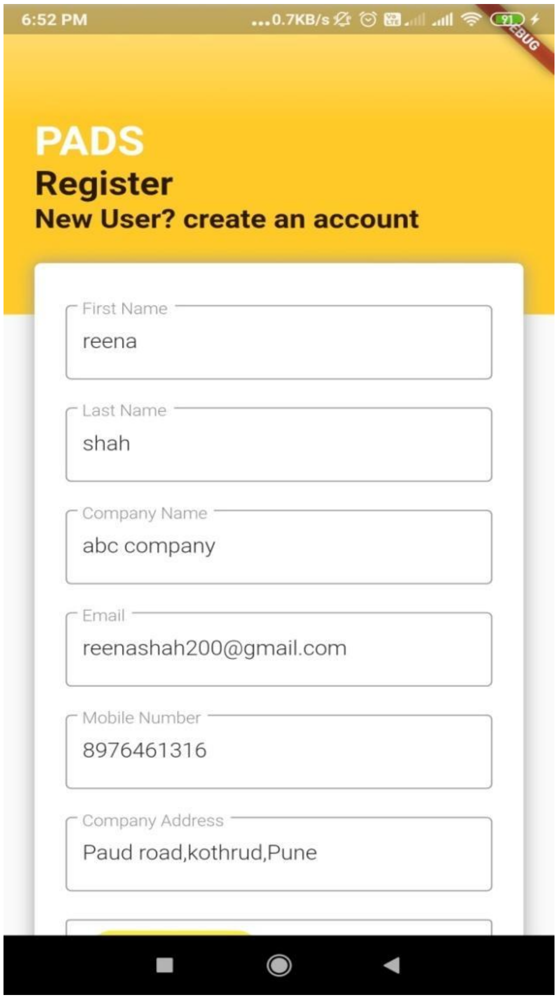
838781

19:00 sec

Didn't get code? **Resend**

1. After click on Login button user will get OTP
2. After entering valid OTP user directly navigate to Prelogin page.
3. After timer runs out OTP field and OTP will get disappear.
4. User needs to click on resend text then new OTP will generate.
5. After entering OTP user directly navigate to Prelogin page.

Signup Page:



PADS

Register

New User? create an account

First Name: reena

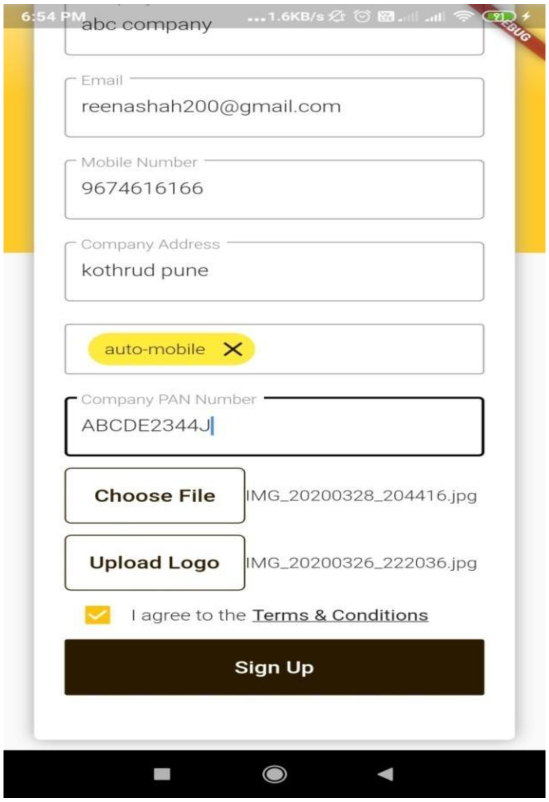
Last Name: shah

Company Name: abc company

Email: reenashah200@gmail.com

Mobile Number: 8976461316

Company Address: Paud road,kothrud,Pune



abc company

Email
reenashah200@gmail.com

Mobile Number
9674616166

Company Address
kothrud pune

auto-mobile ✕

Company PAN Number
ABCDE2344J

IMG_20200328_204416.jpg

IMG_20200326_222036.jpg

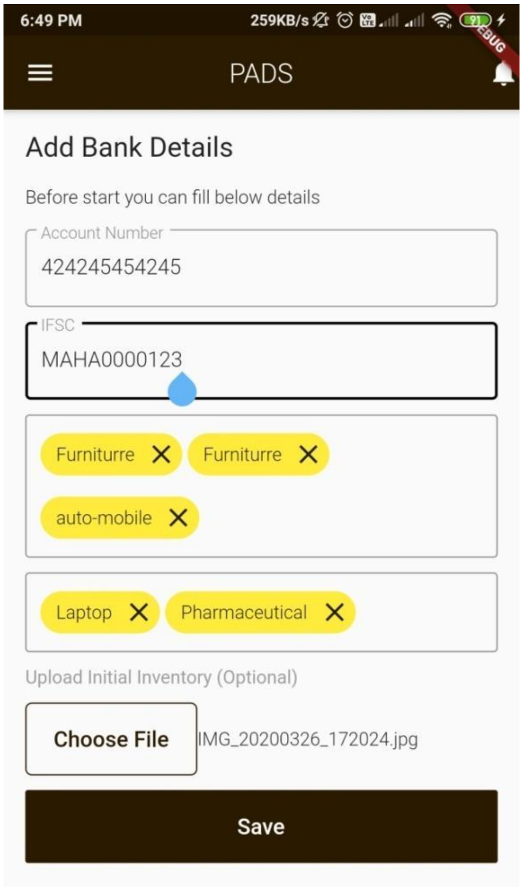
☑ I agree to the Terms & Conditions

1. After click on Sign up in Login page new user can able to register to the application
2. Enter user’s first name.
3. Enter user’s last name.
4. Enter user’s company name.
5. Enter user’s valid email address.
6. Enter user’s valid mobile number.
7. Enter user’s company address
8. Select category.
9. Enter company’s PAN number.
10. Choose PAN image to upload.
11. Choose company logo to upload.

12. Accept terms and conditions.

13. Click on Sign up Button

Bank Details Page:



Add Bank Details

Before start you can fill below details

Account Number
424245454245

IFSC
MAHA0000123

Furniturre ✕ Furniturre ✕
auto-mobile ✕

Laptop ✕ Pharmaceutical ✕

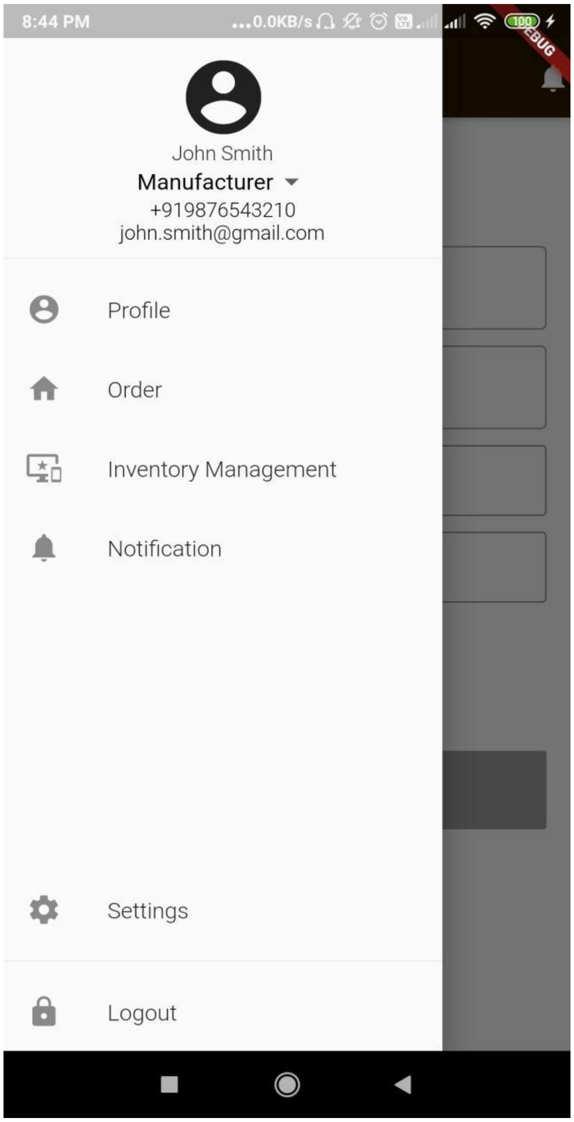
Upload Initial Inventory (Optional)

Choose File IMG_20200326_172024.jpg

Save

1. After entering OTP Bank details page will get display.
2. Enter user valid account number.
3. Enter valid bank IFSC code.
4. Select product category
5. Select product category.
6. Choose inventory file (optional)
7. Click on save.

Hamburger Menu for Manufacturer:



John Smith

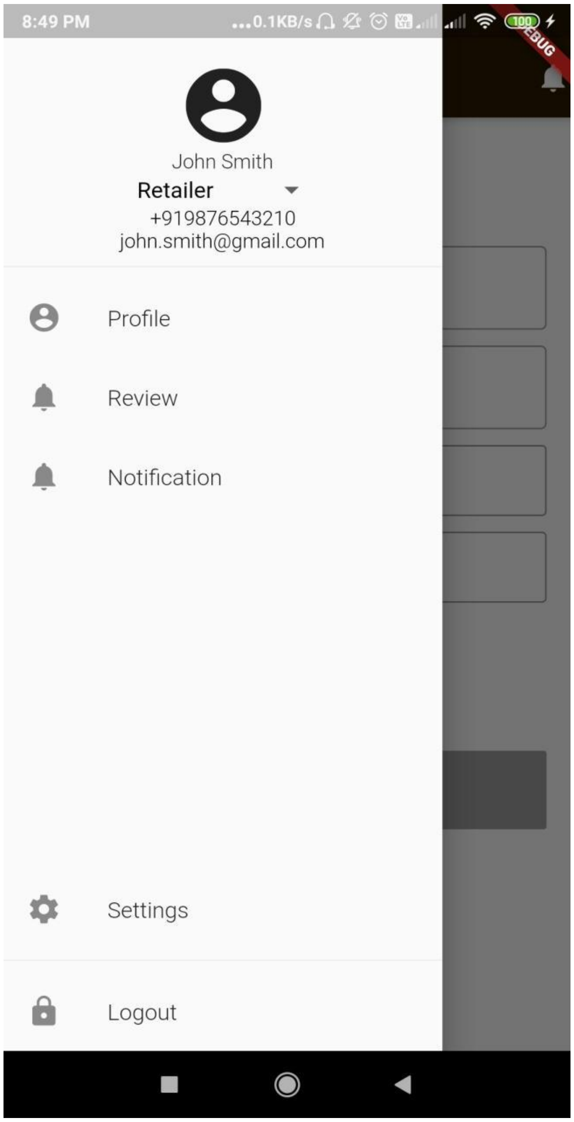
Manufacturer

+919876543210

john.smith@gmail.com

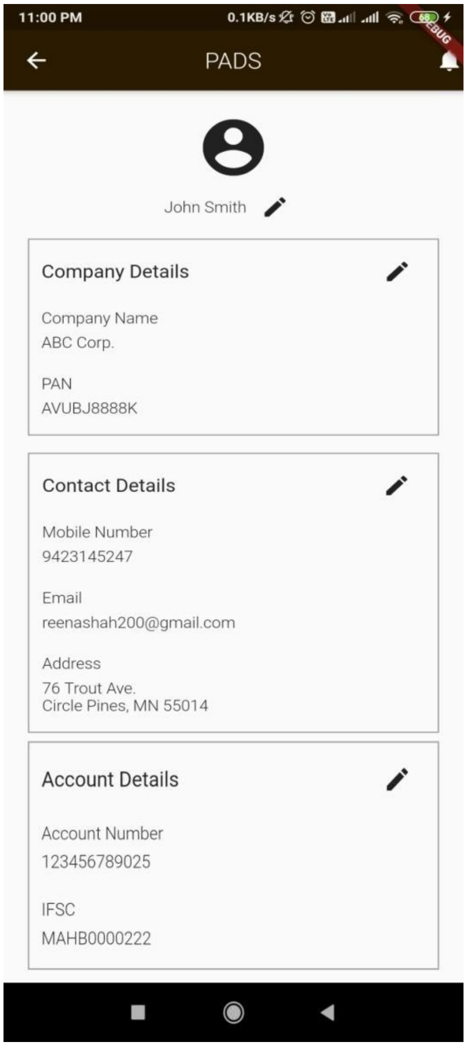
1. Click on hamburger menu.
2. If user is manufacturer menu will be Profile, Order, Inventory, Notification, Settings and Logout.
3. Logout will navigate to Login page.

Hamburger Menu for Retailer:



1. If user is Retailer menu will be Profile, Review, Notification, Settings and Logout
2. Logout will navigate to Login page

Profile Page



John Smith

Company Details

Company Name
ABC Corp.

PAN
AVUBJ8888K

Contact Details

Mobile Number
9423145247

Email
reenashah200@gmail.com

Address
76 Trout Ave.
Circle Pines, MN 55014

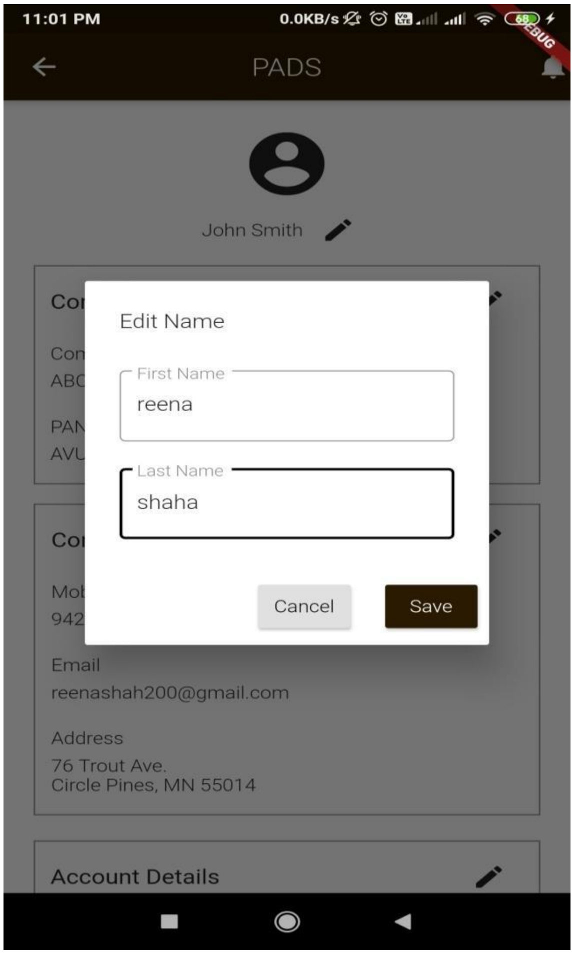
Account Details

Account Number
123456789025

IFSC
MAHB0000222

1. After click on Profile menu profile screen will get open.
2. Profile page is same for both manufacturer and retailer.
3. User can edit name, company details, contact details and account details.

Edit Name



Edit Name

First Name
reena

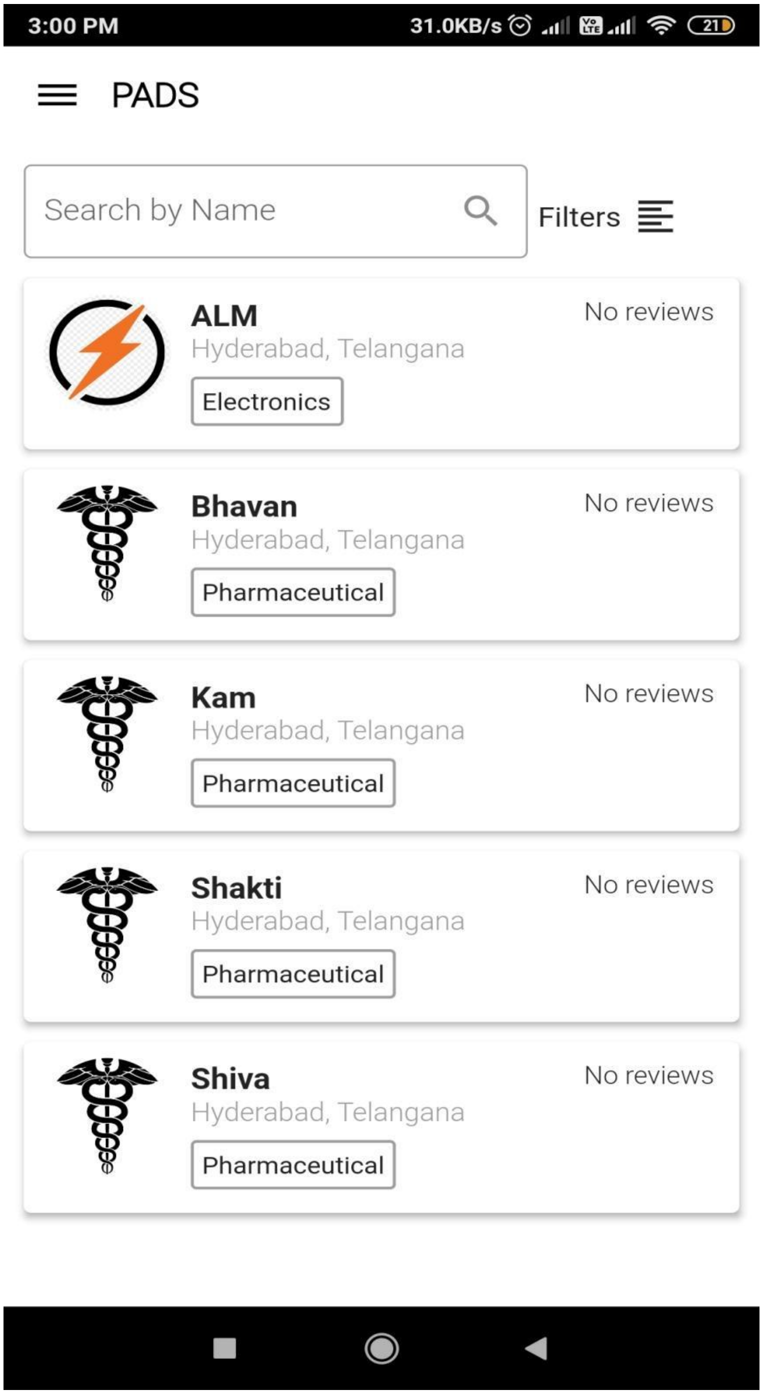
Last Name
shaha

Email
reenashah200@gmail.com

Address
76 Trout Ave.
Circle Pines, MN 55014

1. After click on Edit name icon Edit Name alert dialogue box will open.
2. User can view previously stored name.
3. After editing the name, click on save which will redirect to last page

Order Page



ALM No reviews
Hyderabad, Telangana
Electronics

Bhavan No reviews
Hyderabad, Telangana
Pharmaceutical

Kam No reviews
Hyderabad, Telangana
Pharmaceutical

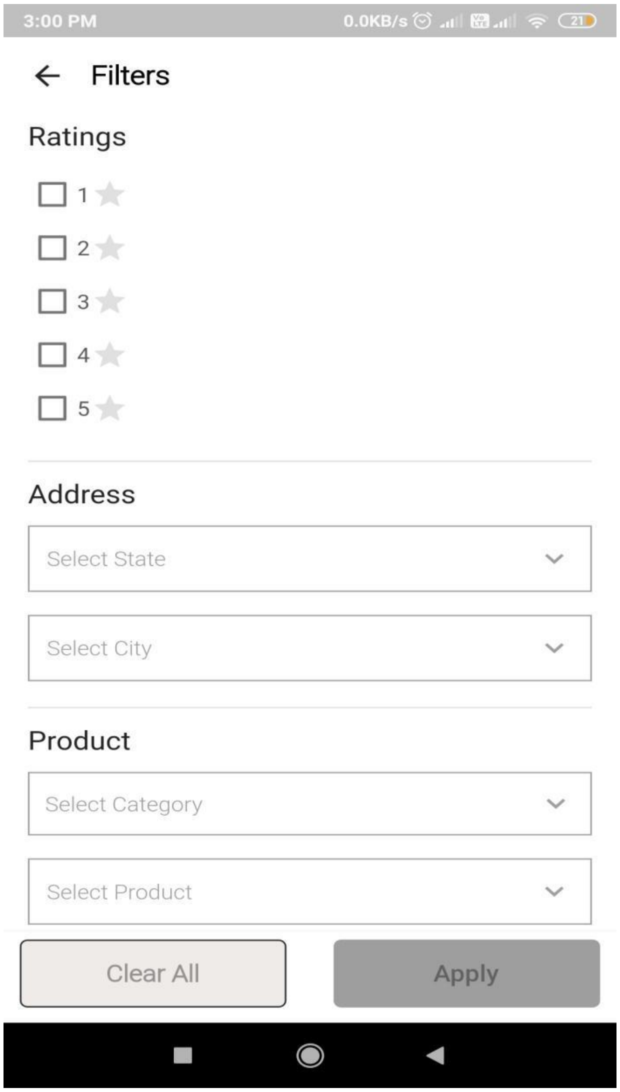
Shakti No reviews
Hyderabad, Telangana
Pharmaceutical

Shiva No reviews
Hyderabad, Telangana
Pharmaceutical

1. Click on Manufacturer to view products.

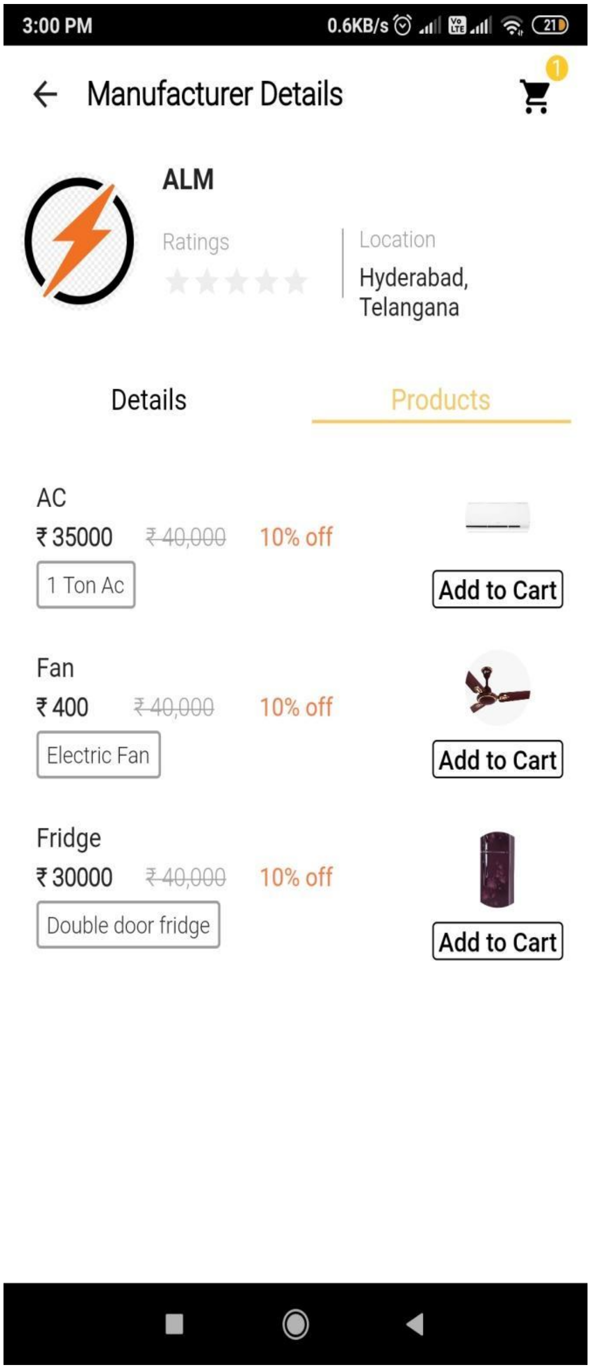
2. Manufacturer can be searched by name & other filters.

Filters Page



1. Filters can be applied by rating, address & product.

Products Page



ALM

Ratings

Location

Hyderabad,
Telangana

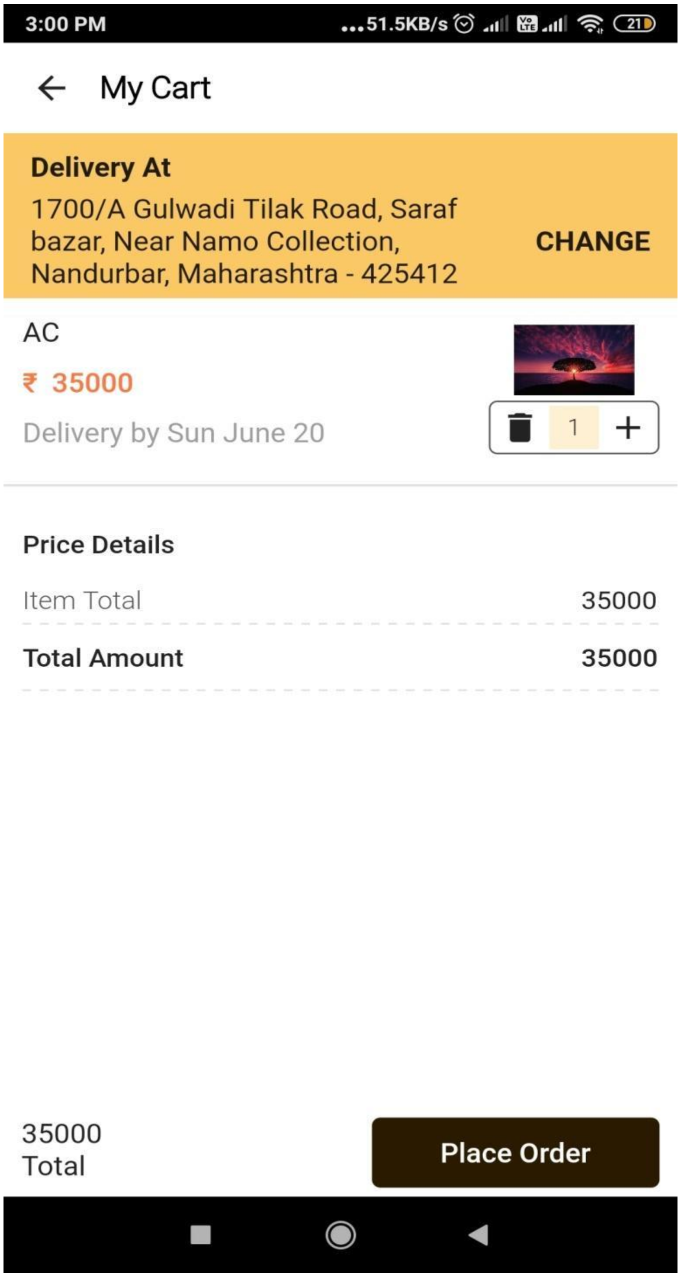
AC
₹ 35000 ~~₹ 40,000~~ 10% off
1 Ton Ac

Fan
₹ 400 ~~₹ 40,000~~ 10% off
Electric Fan

Fridge
₹ 30000 ~~₹ 40,000~~ 10% off
Double door fridge

1. Item can be added to cart by clicking on Add to Cart button.

Cart Page



3:00 PM ...51.5KB/s 21

My Cart

Delivery At

1700/A Gulwadi Tilak Road, Saraf
bazar, Near Namo Collection,
Nandurbar, Maharashtra - 425412

CHANGE

AC

₹ 35000

Delivery by Sun June 20

1 +

Price Details

Item Total	35000
Total Amount	**35000**

35000
Total

Place Order

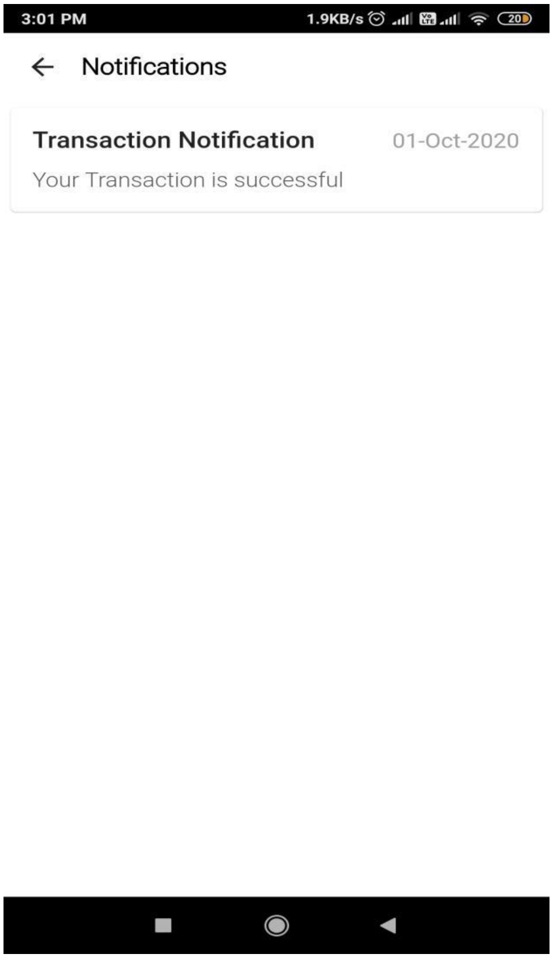
1. Cart Item can be deleted by clicking on delete icon.

2. Cart item qty can be increased by clicking on + icon.

3. Click on Place Order button to confirm order.

4. User will be notified accordingly

Notifications Page



Notifications

Transaction Notification 01-Oct-2020

Your Transaction is successful

4.3 Program Specifications / Flow Charts

Module	Program Name	Constraints	Description
Authentication	Login	Mobile number must be 10 digits	To access application user need to enter mobile number which will get OTP
	OTP	Must enter OTP	User need to enter 6 digits OTP which will send to user.

Module	Program Name	Constraints	Description
Manufacturer	Add categories, Add products, Handle inventory	Required fields must not be null.	Only manufacturer can add categories and products. Also handle inventory.
Retailer	Add review	Required fields must not be null.	Only retailer can give review.
Admin	manage orders	Required fields must not be null.	Admin can manage order details

Drawbacks and Limitations

1. Only one application on one device can be installed.
2. Whenever user get OTP they need to enter it manually i.e. OTP will not be auto filled.
3. For using application, user must need strong internet connection.
4. After some time period session will get timed out user will automatically logged out from the application.

Proposed Enhancement

Application is never complete. It requires changes as and when user demands for new features.

Also there are some aspects where the application can be always improved upon. Thus the new application leaves chances for further improvement which can be described as follow:

1. The excel sheet of the user always gets update whenever there are changes in inventory.
2. The application can be implemented for manufacturer and retailer with many facilities such as online order, select product as per their choice without meeting provider.
3. Online payment module can be added.
4. Manufacturer can also able to react on review given by retailer.
5. Application can be optimized for lower internet speeds.
6. AI/ML can be applied to improve user experience.

Conclusions

The objective of this project was to automate the inventory system. PADS provide a user friendly interface for manufacturer and retailers to order product as per their categories.

The conclusions derived are as following:

1. By using current application the total time required to order product is less as compared to existing system.
2. The quality of process has improved and become fast
3. The required human efforts are reducing using the system.
4. Admin can view any details of this application at any time and from anywhere.
5. The use of application eliminates paper work.
6. Removal of redundancy.

Bibliography

1. https://medium.com/flutter-community

2. https://flutter.dev/docs

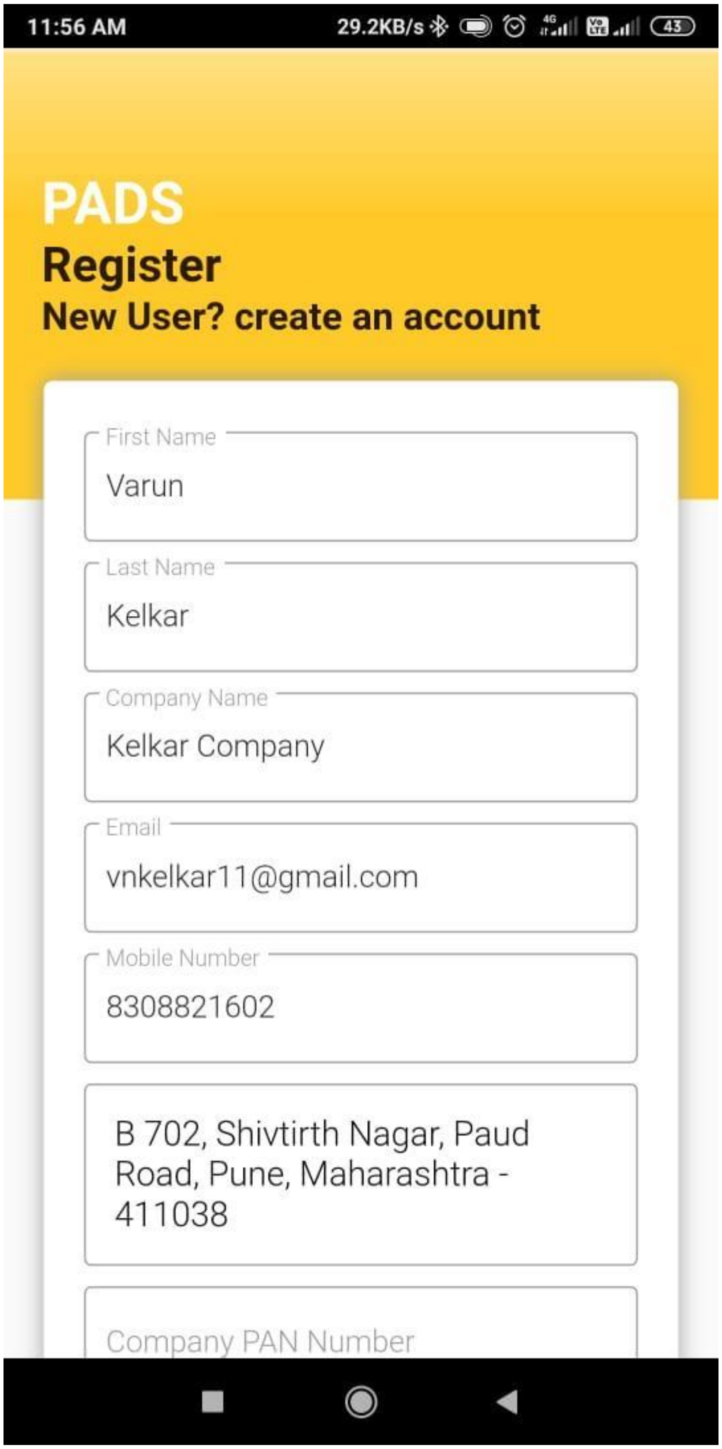
3. https://www.udemy.com/course/flutter-bootcamp-with-dart/learn/lecture/https://www.udemy.com/course/flutter-bootcamp-with-dart/learn/lecture/

4. https://www.youtube.com/watch?v=GLSG_Wh_YWc

ANNEXURES

ANNEXURE 1: USER INTERFACE SCREENS

1. Signup Screen Part - 1



PADS

Register

New User? create an account

First Name: Varun

Last Name: Kelkar

Company Name: Kelkar Company

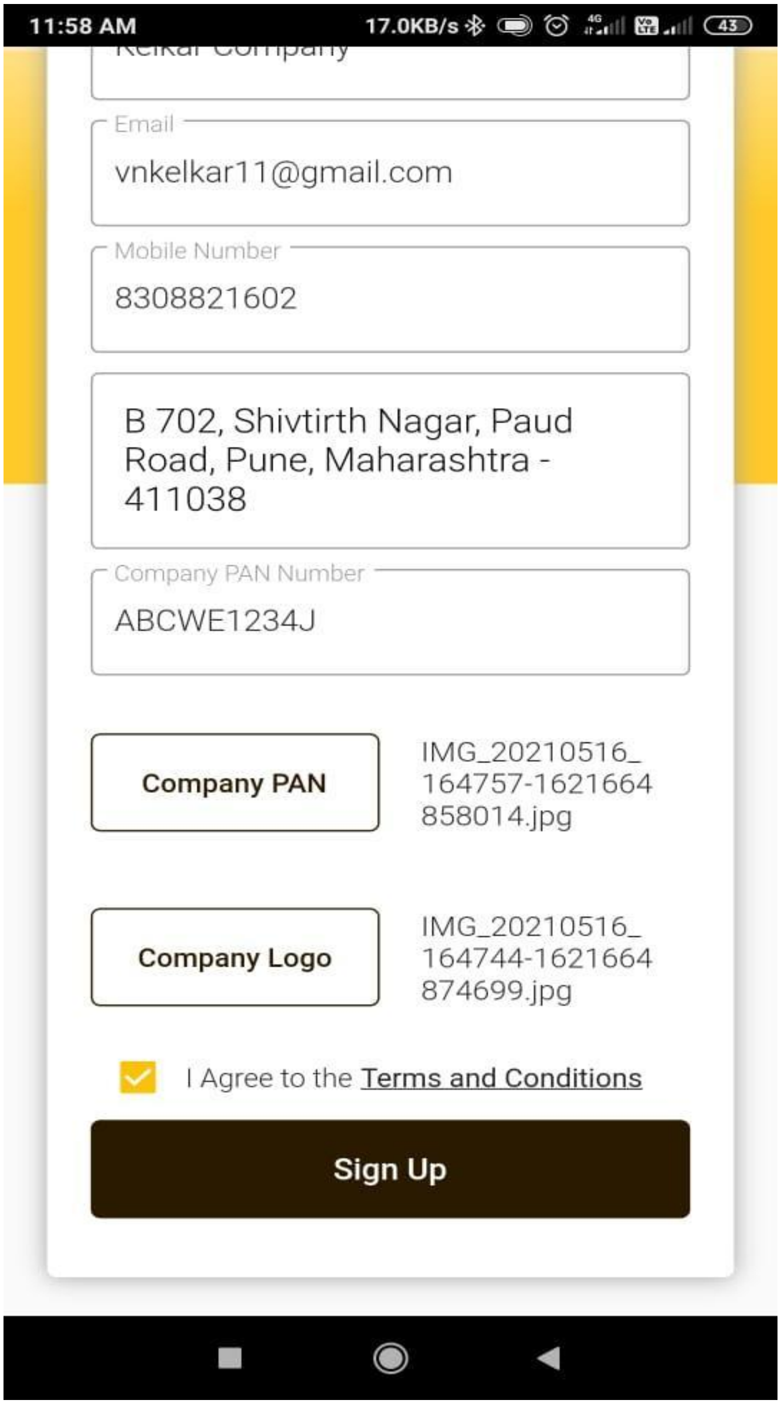
Email: vnkelkar11@gmail.com

Mobile Number: 8308821602

B 702, Shivtirth Nagar, Paud Road, Pune, Maharashtra - 411038

Company PAN Number

2. Signup Screen Part -2



Kelkar Company

Email
vnkelkar11@gmail.com

Mobile Number
8308821602

B 702, Shivtirth Nagar, Paud Road, Pune, Maharashtra - 411038

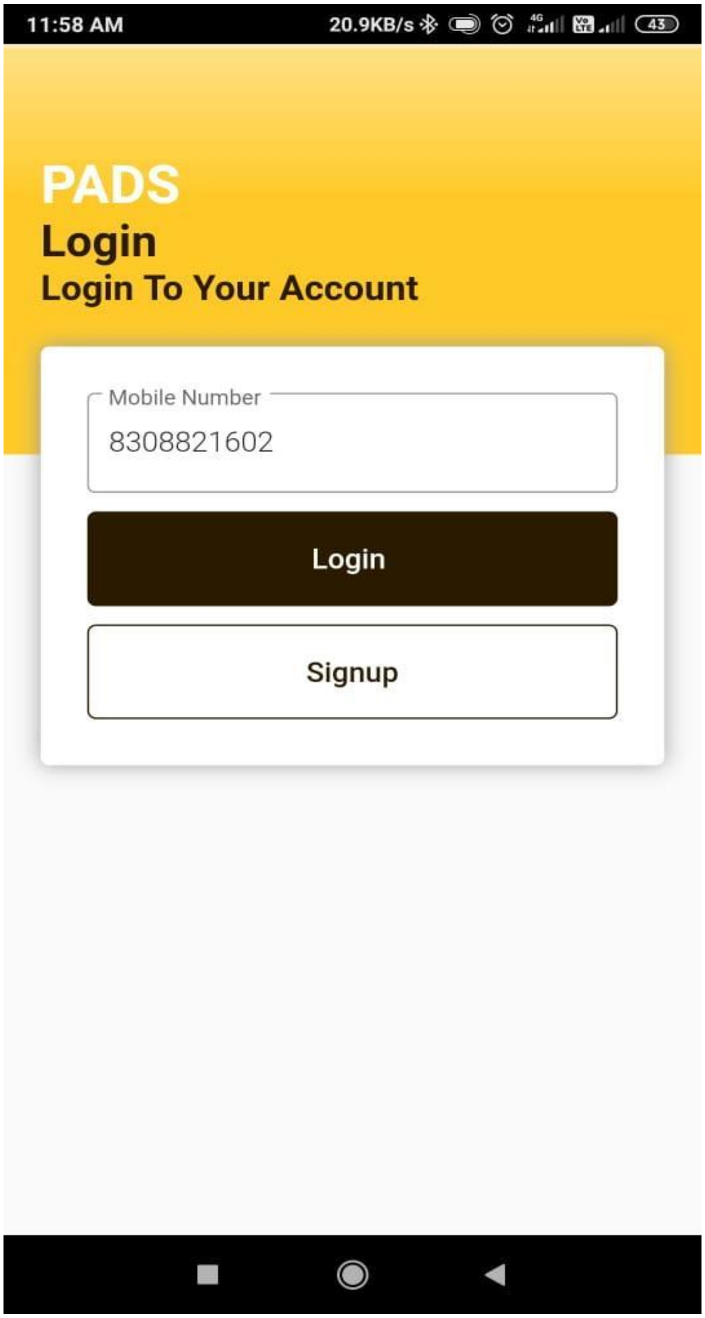
Company PAN Number
ABCWE1234J

Company PAN — IMG_20210516_164757-1621664858014.jpg

Company Logo — IMG_20210516_164744-1621664874699.jpg

☑ I Agree to the Terms and Conditions

3. Login Screen



11:58 AM 20.9KB/s 43

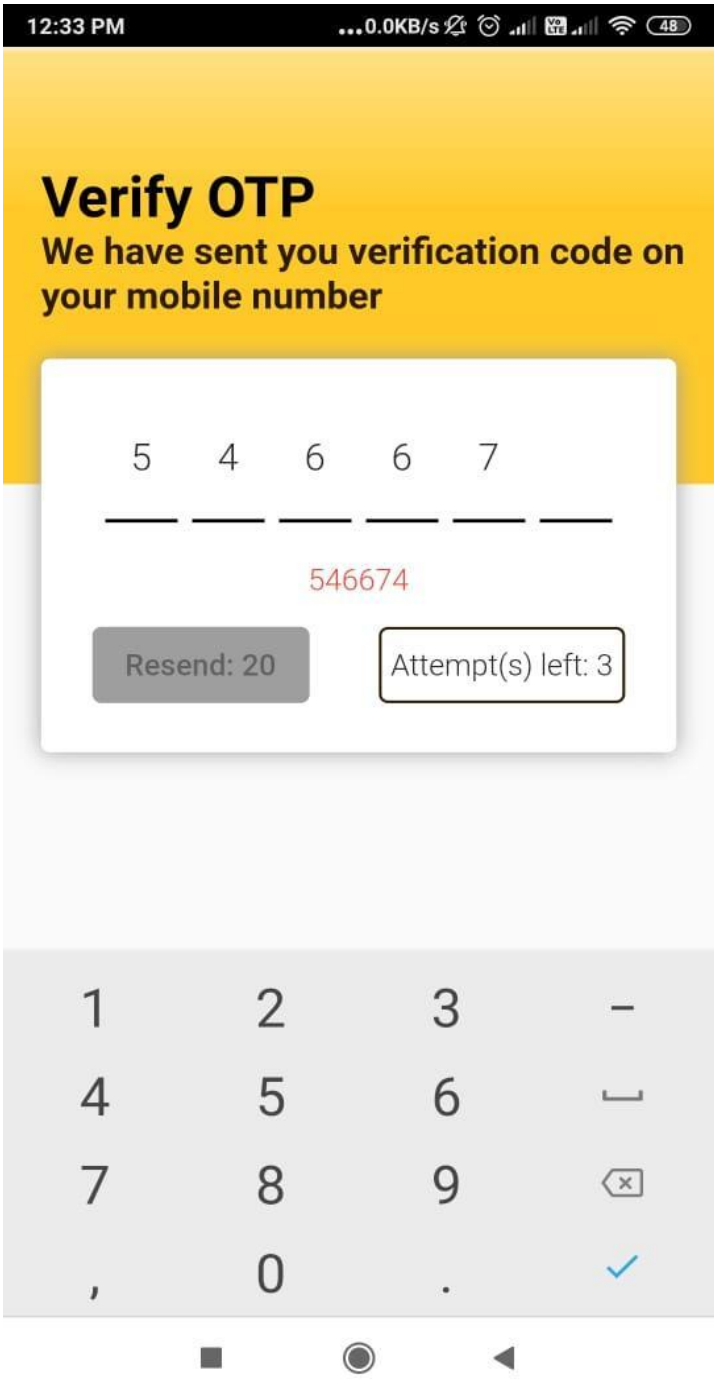
PADS

Login

Login To Your Account

Mobile Number: 8308821602

4. OTP Screen



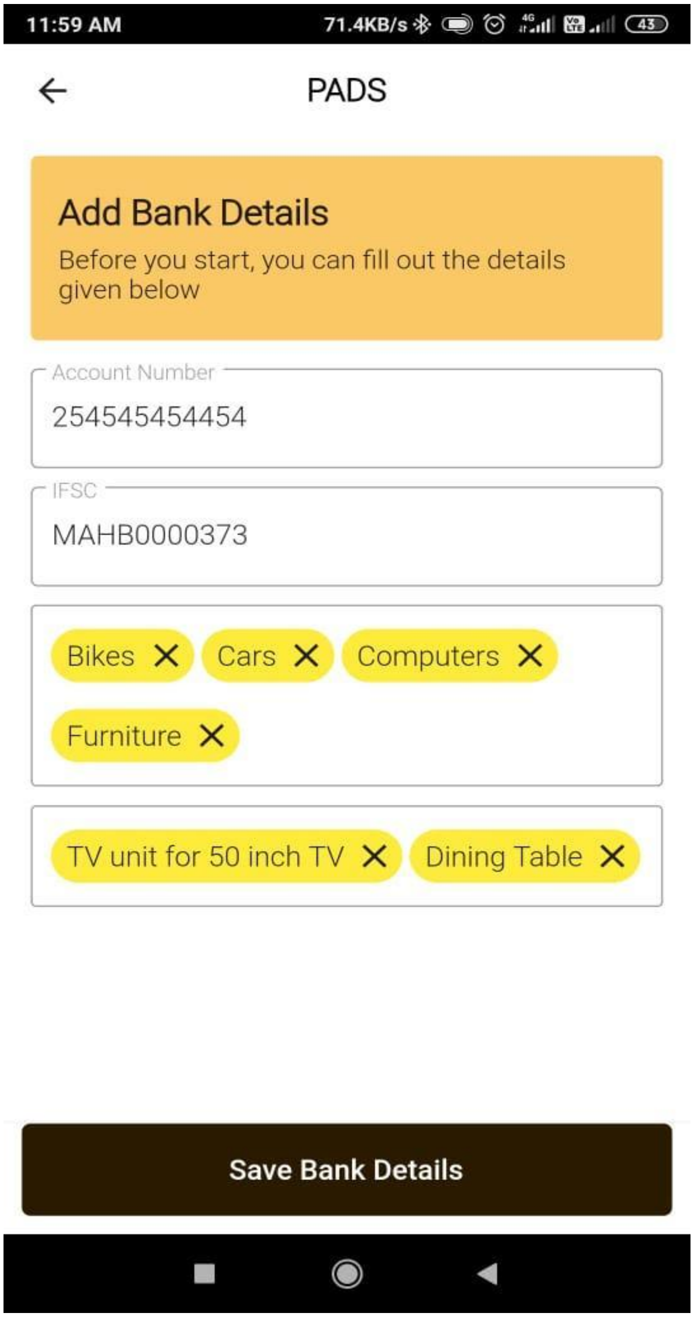
Verify OTP

We have sent you verification code on your mobile number

5 4 6 6 7

546674

5. Bank Details Screen



Add Bank Details

Before you start, you can fill out the details given below

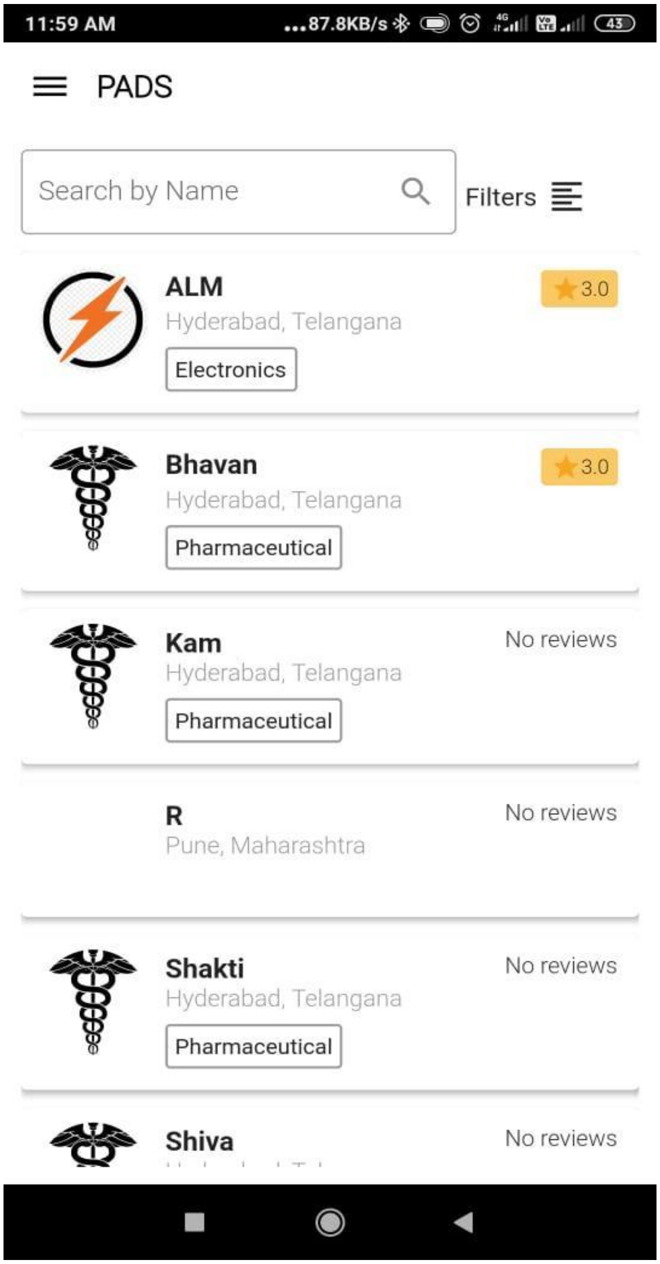
Account Number: 254545454454

IFSC: MAHB0000373

Bikes ✕ Cars ✕ Computers ✕ Furniture ✕

TV unit for 50 inch TV ✕ Dining Table ✕

6. Home Screen



11:59 AM ...87.8KB/s

PADS

Search by Name

Filters

ALM 3.0
Hyderabad, Telangana
Electronics

Bhavan 3.0
Hyderabad, Telangana
Pharmaceutical

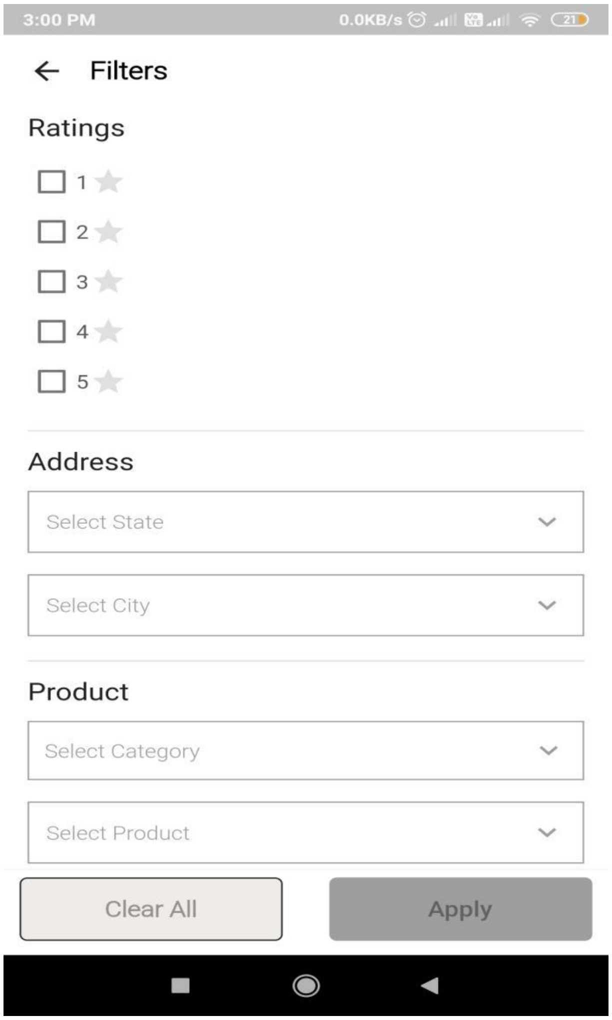
Kam No reviews
Hyderabad, Telangana
Pharmaceutical

R No reviews
Pune, Maharashtra

Shakti No reviews
Hyderabad, Telangana
Pharmaceutical

Shiva No reviews

7. Filters Screen



← Filters

Ratings

□ 1 ★

□ 2 ★

□ 3 ★

□ 4 ★

□ 5 ★

Address

Select State

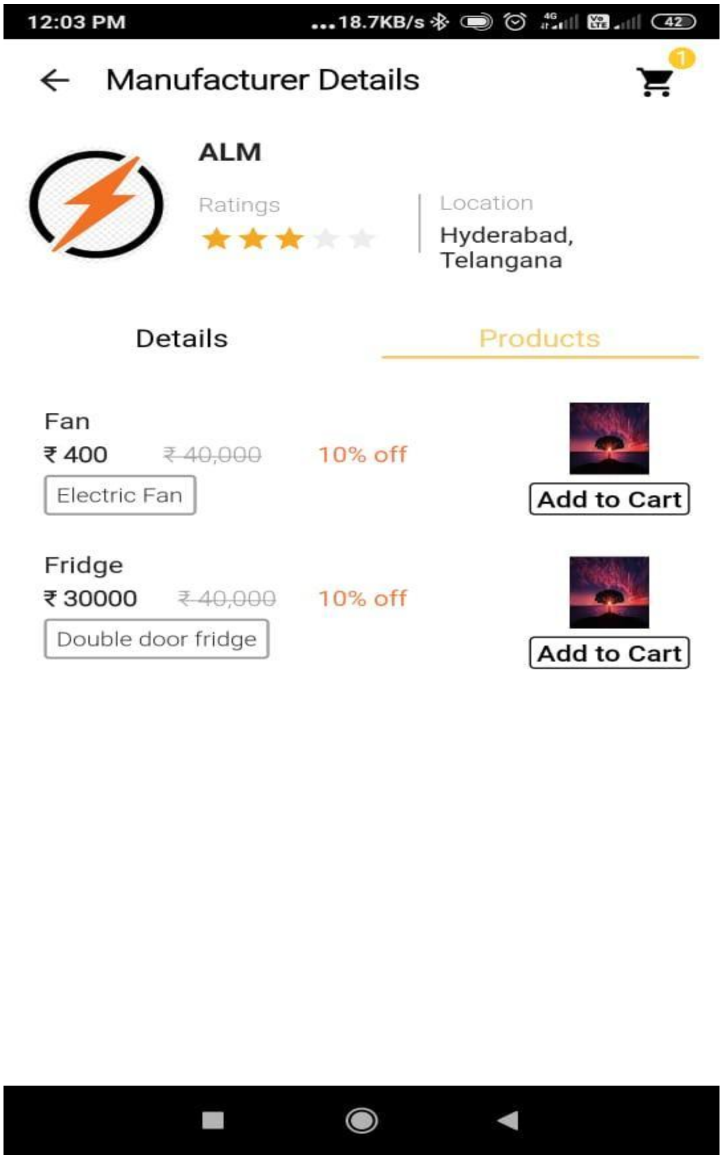
Select City

Product

Select Category

Select Product

8. Manufacturer Details Screen



ALM

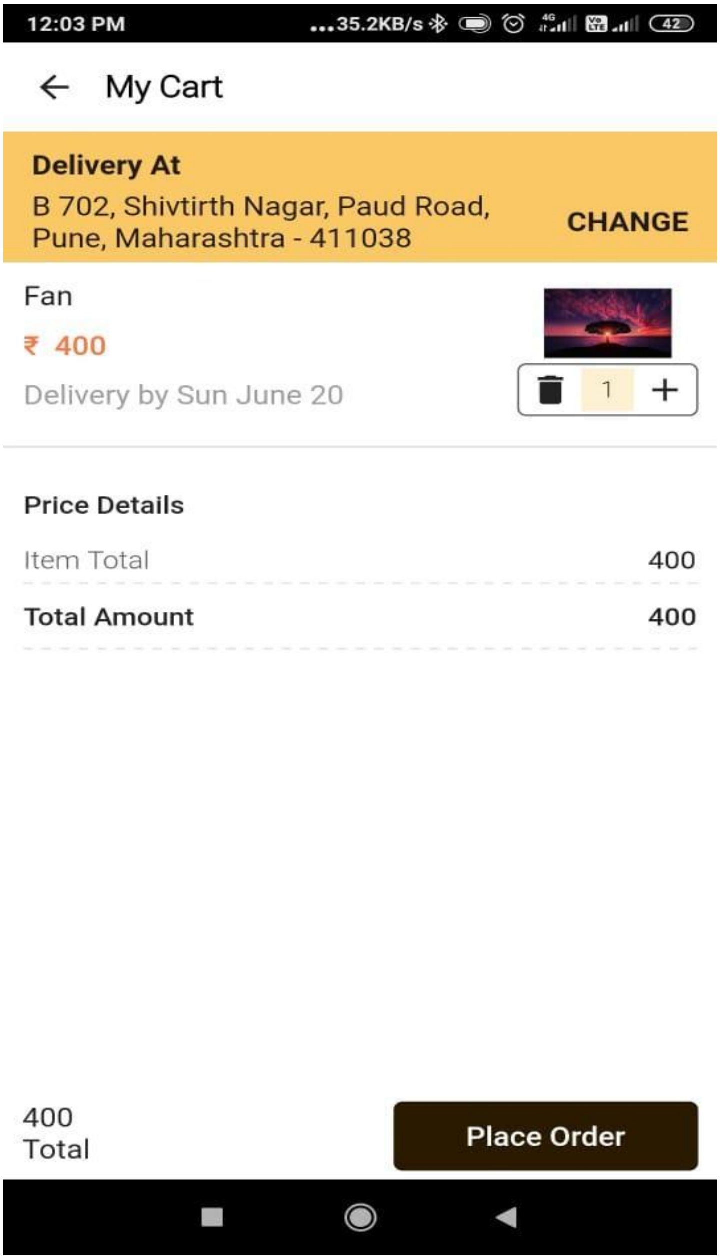
Ratings ★★★☆☆

Location
Hyderabad,
Telangana

Fan
₹ 400 ~~₹ 40,000~~ 10% off
Electric Fan

Fridge
₹ 30000 ~~₹ 40,000~~ 10% off
Double door fridge

9. Cart Page



12:03 PM ...35.2KB/s 42

My Cart

Delivery At

B 702, Shivtirth Nagar, Paud Road,
Pune, Maharashtra - 411038

CHANGE

Fan

₹ 400

Delivery by Sun June 20

1

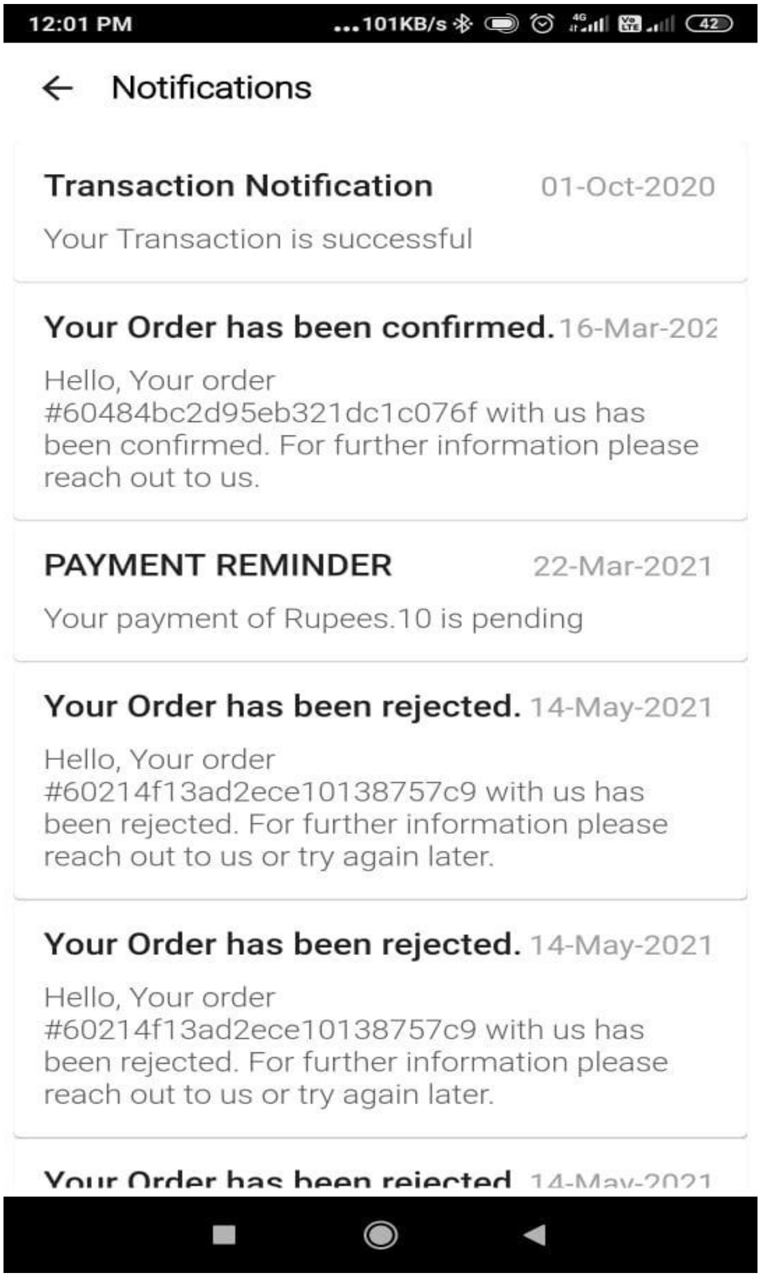
Price Details

Item Total	400
Total Amount	**400**

400
Total

Place Order

10. Notification Screen



Transaction Notification 01-Oct-2020

Your Transaction is successful

Your Order has been confirmed. 16-Mar-202

Hello, Your order #60484bc2d95eb321dc1c076f with us has been confirmed. For further information please reach out to us.

PAYMENT REMINDER 22-Mar-2021

Your payment of Rupees.10 is pending

Your Order has been rejected. 14-May-2021

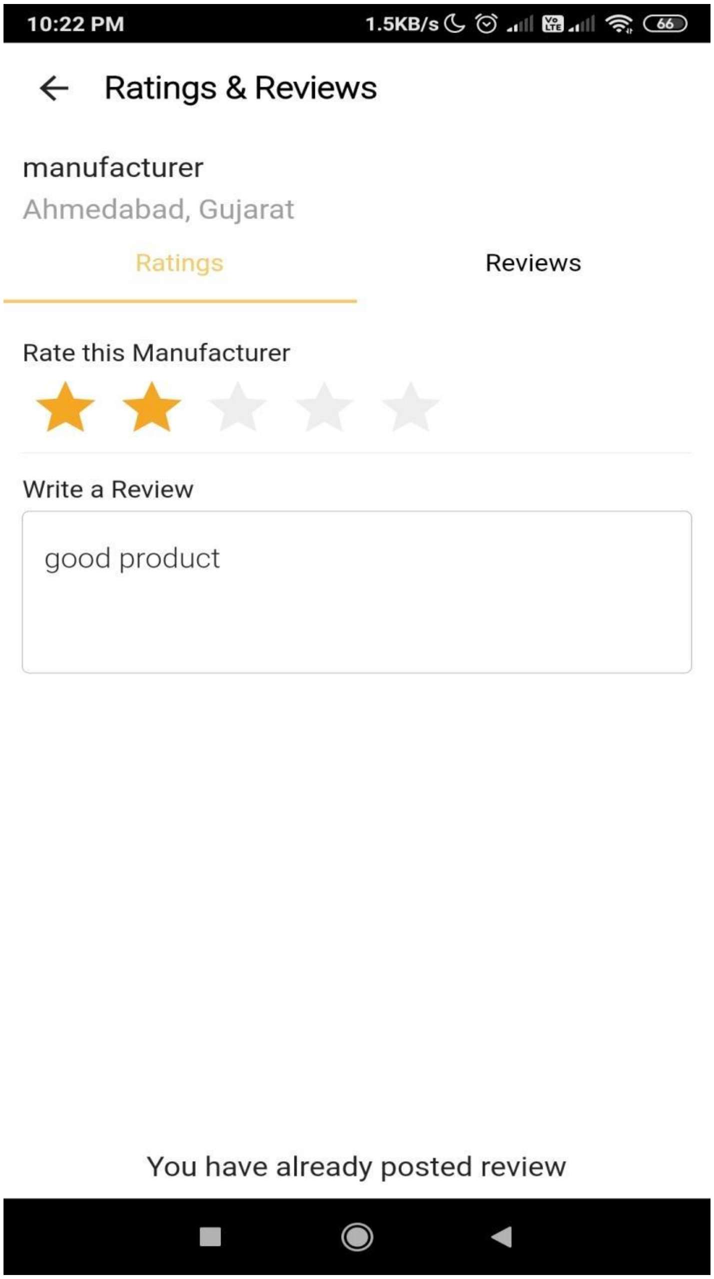
Hello, Your order #60214f13ad2ece10138757c9 with us has been rejected. For further information please reach out to us or try again later.

Your Order has been rejected. 14-May-2021

Hello, Your order #60214f13ad2ece10138757c9 with us has been rejected. For further information please reach out to us or try again later.

Your Order has been rejected 14-May-2021

11. Reviews Screen



Ratings & Reviews

manufacturer

Ahmedabad, Gujarat

Rate this Manufacturer

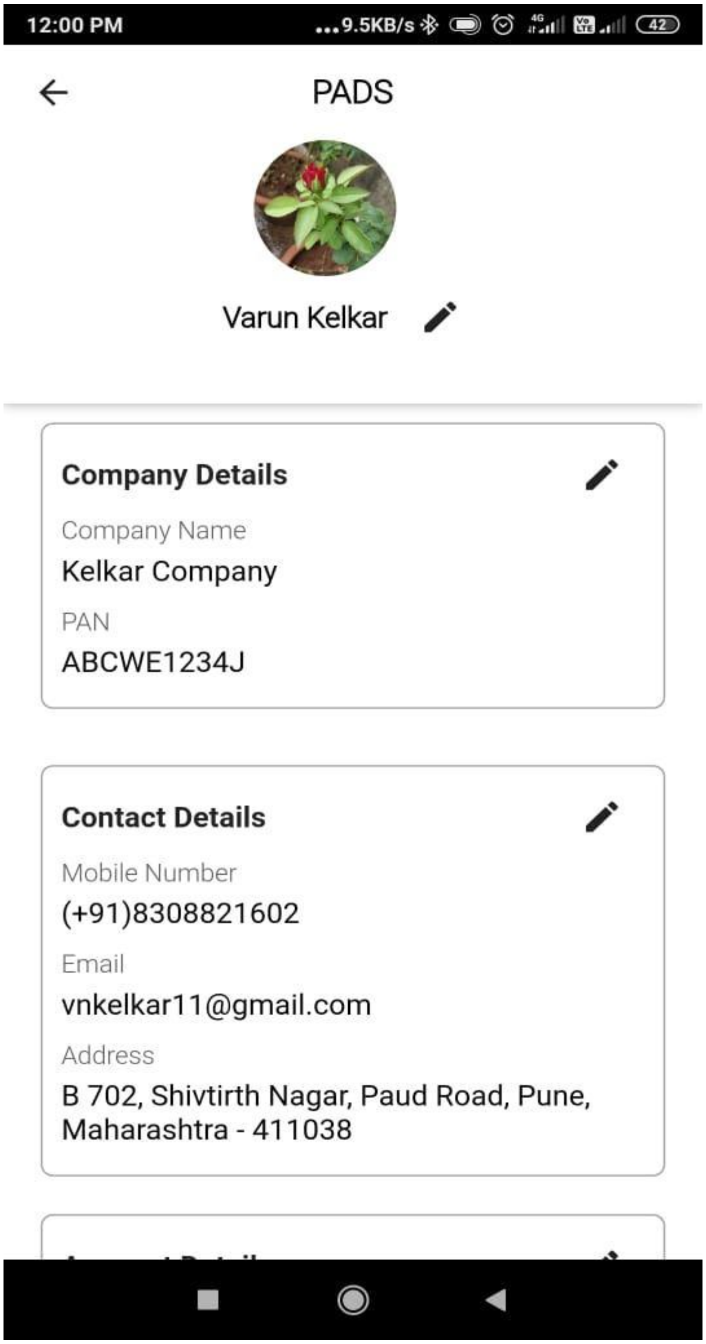
★★☆☆☆

Write a Review

good product

You have already posted review

12. Profile Screen



PADS

Varun Kelkar

Company Details

Company Name

Kelkar Company

PAN

ABCWE1234J

Contact Details

Mobile Number

(+91)8308821602

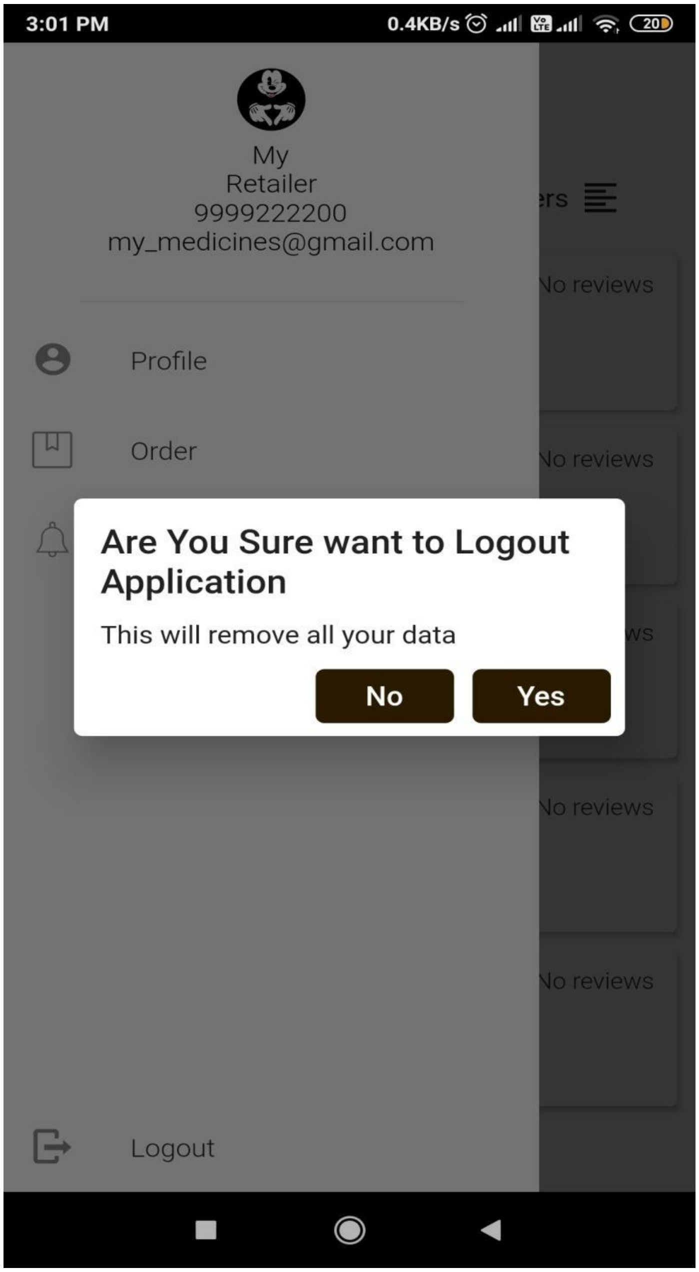
Email

vnkelkar11@gmail.com

Address

B 702, Shivtirth Nagar, Paud Road, Pune,
Maharashtra - 411038

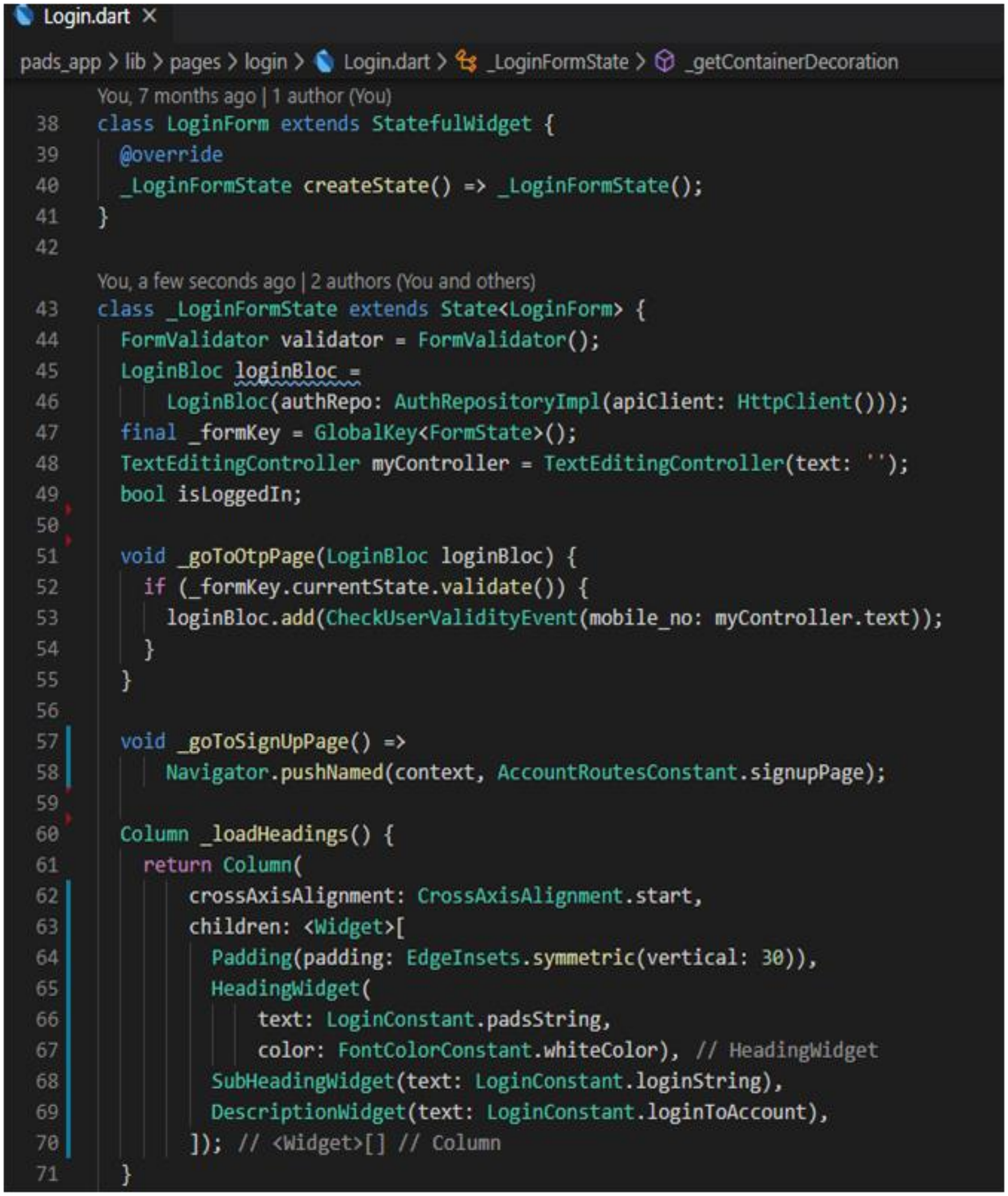
13. Logout Screen



Are You Sure want to Logout Application

This will remove all your data

ANNEXURE 3: SAMPLE PROGRAM CODE


Login.dart ×
pads_app > lib > pages > login > Login.dart > _LoginFormState > _getContainerDecoration
You, 7 months ago | 1 author (You)
You, a few seconds ago | 2 authors (You and others)

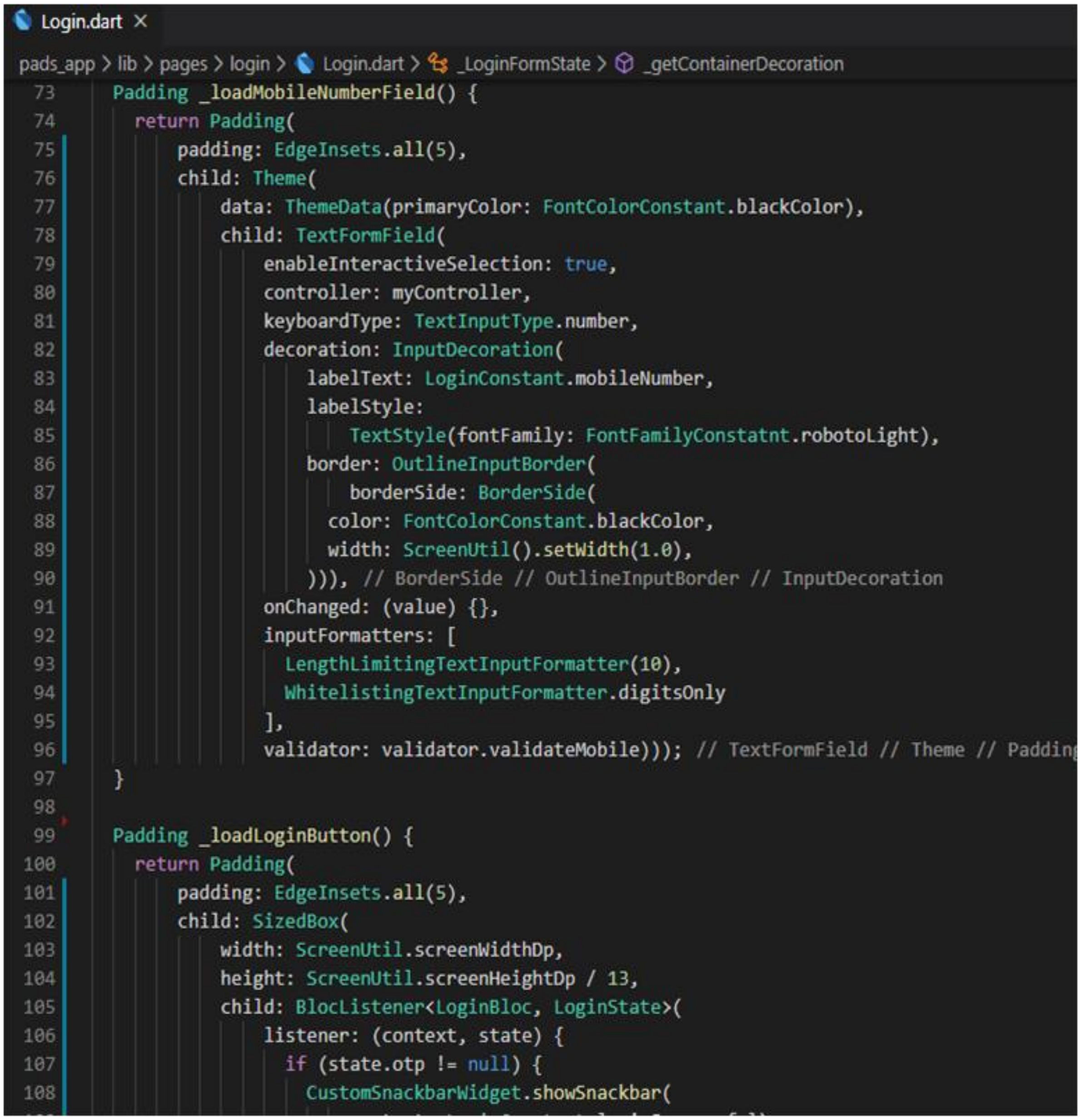
```
class LoginForm extends StatefulWidget {
  @override
  _LoginFormState createState() => _LoginFormState();
}

class _LoginFormState extends State<LoginForm> {
  FormValidator validator = FormValidator();
  LoginBloc loginBloc =
      LoginBloc(authRepo: AuthRepositoryImpl(apiClient: HttpClient()));
  final _formKey = GlobalKey<FormState>();
  TextEditingController myController = TextEditingController(text: '');
  bool isLoggedIn;

  void _goToOtpPage(LoginBloc loginBloc) {
    if (_formKey.currentState.validate()) {
      loginBloc.add(CheckUserValidityEvent(mobile_no: myController.text));
    }
  }

  void _goToSignUpPage() =>
      Navigator.pushNamed(context, AccountRoutesConstant.signupPage);

  Column _loadHeadings() {
    return Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: <Widget>[
          Padding(padding: EdgeInsets.symmetric(vertical: 30)),
          HeadingWidget(
              text: LoginConstant.padsString,
              color: FontColorConstant.whiteColor), // HeadingWidget
          SubHeadingWidget(text: LoginConstant.loginString),
          DescriptionWidget(text: LoginConstant.loginToAccount),
        ]); // <Widget>[] // Column
  }
```


Login.dart ×
pads_app > lib > pages > login > Login.dart > _LoginFormState > _getContainerDecoration

```
  Padding _loadMobileNumberField() {
    return Padding(
        padding: EdgeInsets.all(5),
        child: Theme(
            data: ThemeData(primaryColor: FontColorConstant.blackColor),
            child: TextFormField(
                enableInteractiveSelection: true,
                controller: myController,
                keyboardType: TextInputType.number,
                decoration: InputDecoration(
                    labelText: LoginConstant.mobileNumber,
                    labelStyle:
                        TextStyle(fontFamily: FontFamilyConstatnt.robotoLight),
                    border: OutlineInputBorder(
                        borderSide: BorderSide(
                      color: FontColorConstant.blackColor,
                      width: ScreenUtil().setWidth(1.0),
                    ))), // BorderSide // OutlineInputBorder // InputDecoration
                onChanged: (value) {},
                inputFormatters: [
                  LengthLimitingTextInputFormatter(10),
                  WhitelistingTextInputFormatter.digitsOnly
                ],
                validator: validator.validateMobile))); // TextFormField // Theme // Paddin
  }

  Padding _loadLoginButton() {
    return Padding(
        padding: EdgeInsets.all(5),
        child: SizedBox(
            width: ScreenUtil.screenWidthDp,
            height: ScreenUtil.screenHeightDp / 13,
            child: BlocListener<LoginBloc, LoginState>(
                listener: (context, state) {
                  if (state.otp != null) {
                    CustomSnackbarWidget.showSnackbar(
```