



INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

Documentation On

"packagingpartner.com" - Online packaging material Store

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ABSTRACT

The Packagingpartner.com project is a collaborative effort to create a secureonline platform to facilitate the sale of Boxes, Tapes, Stretch wraps and Mailers from stores owner to the wholesaler and the consumer. This project is useful for wholesaler and general users to purchase various Boxes, Tapes, Stretch wraps. Also provide the desire cost to the wholesaler or customer.

The Packagingpartner.com project will list their product on an online marketplace and to accept the payment directly from customers. This will help the customers to purchase the product from different cities.

ACKNOWLEDGEMENT

I take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. I extend my sincere and heartfelt thanks to our esteemed guide, Mrs. Geeta Darunte for providing me with the right guidance and advice at the crucial juncture sand for showing me the right way. I extend my sincere thanks to our respected Centre Co-Ordinator Mr.Rohit Puranik, for allowing us to use the facilities available. I would like to thank the other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement they have given me during the course of our work.

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INTRODUCTION

This project is a web-based shopping system for an existing shop. An Online Shopping Management System where the Admin can Add, Update and Delete products. The Products are divided into various categories like Tape, Boxes, Stretch wraps, etc. A user can select a particular item to view the details, choose the number of items and fill in details like Name, Address, etc. to buy a product the project objective is to deliver the online shopping application into web platform. Online shopping is the process whereby consumers directly buy goods or services from a seller in real- time, without an intermediary service, over the Internet. This project is attempts provide the advantages of online shopping to customers of a real shop. It helps buying the products in the shop anywhere throughinternet by using an android device.

We are well-known for delivering packaging products such as boxes, tapes, stretch, envelopes & mailer, and dispenser tools and equipment. We provide the best pricing in the market and give free home delivery services throughout India.

Features: -

- 1. Products Available-Corrugated Boxes, Envelopes and mailers, Carton Sealing Tape.
- 2. Category of products- Polybags, Corrugated Boxes, Tape, Mailers.
- 3. Cart feature
- 4. Feedback
- 5. The admin can add/delete/restore/archive products, customers and manages orders.
- 6. Allows the customers to maintain cart.
- 7. Allows customers to add product in wishlist.
- 8. Payment gateway.
- 9. Inventory management.

PROJECT OBJECTIVE

The objective of the project is to make platform designed to provide a user-friendly and efficient way for customers to browse, select, and purchase sustainable packaging materials and supplies. The platform aims to promote environmentally-friendly practices and cater to businesses and individuals seeking eco-conscious alternatives for their packaging needs.

PROJECT OVERVIEW

The central concept of the application is to allow the customer to shop virtually using the internet and allow customers to buy the items and articles of their desire from the store. The information pertaining to the products are stores on an RDBMS at the server side (store).

The server processes the customers, and the items are shipped to the address submitted by them. The application was designed into two modules first is for the customers who wish to buy the articles. Second is for the storekeepers who maintains and updates the information pertaining to the articles and those of this product is a departmental store where the application is hosted on the web and the administrator maintains the database. The application, which is deploy the customer database, the details of the items are brought forward from the database for the customer view based on the selection through the menu and the database of all the products are updated at the endof each transaction. Data entry into the application can be done through various screens designed for various levels of users. Once the authorized personal feed the relevant data into the system, several reports could be generated as per the security.

PROJECT SCOPE

This system can be implemented to any shop in the locality or to multinational branded shops having retail outlet chains. The system recommends a facility to accept the orders 24*7 and a home delivery system which can make customers happy. We are well-known for delivering packaging products such as boxes, tapes, stretch wraps, polybags, irrigation, and farming tools and equipment. We provide the best pricing in the market and give free home delivery services throughout India.

STUDY OF THE SYSTEM

MODULES:

The project compilation we identify the responsibility be presented with the following modules and roles.

The modules involved are:

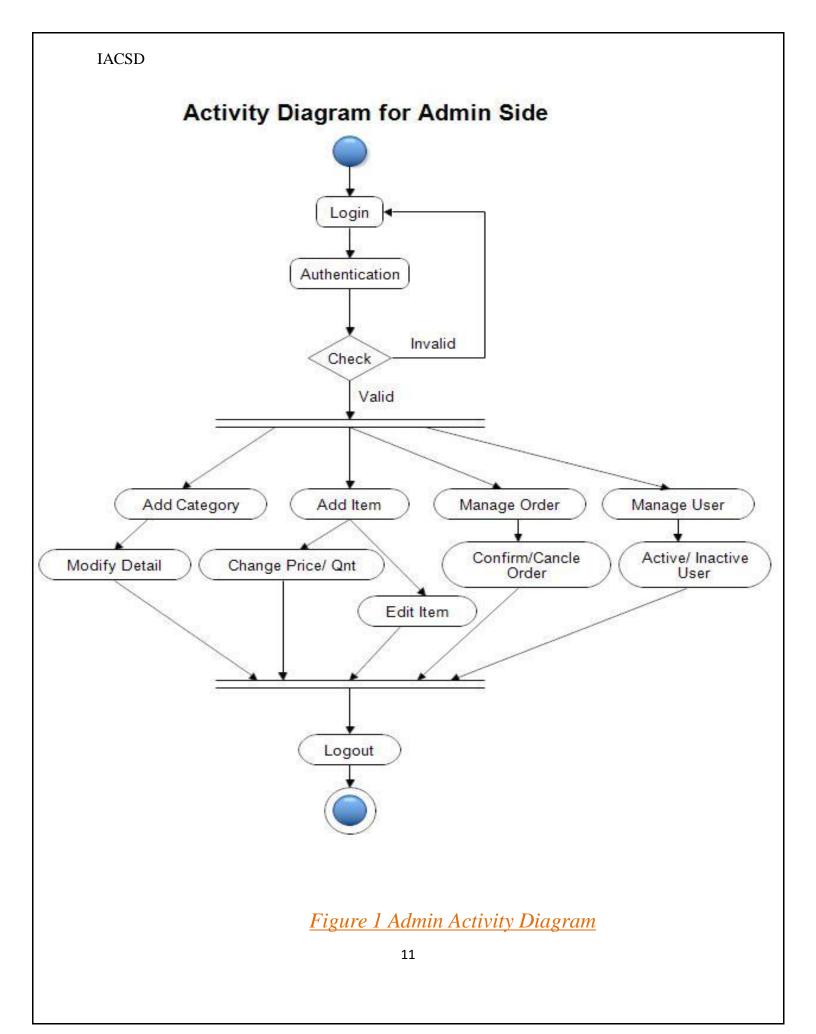
- ➤ Administrator
- Customer

Administrator:

The administrator is the super user of this application. Only admin have access into this admin page. The admin can manage product details. The administrator has all the information about the customer and about all products.

This module is divided into different sub modules.

- 1. Manage Products
- 2. Manage Customer
- 3. Manage Orders
- 4. Manage Feedback



> Add Products

The admin can add the products with different category's. The products classified into different categories by name. Admin can check ISO certified products into the existing system with all its details including an image.

Delete Products

Administrator can delete the products based on the stock and quality of that particular product.

> Archive Products

Admin will have a list view of all the existing products. He can also search for a particular product by category name.

> Set Discount

Admin can have authority to set the specific discount to the products, so more number of customer can visit and buy products.

Balance Sheet

Admin can see the balance sheet of the transaction.

Edit Product

Admin can edit the product details if there is any update.

IACSD Activity Diagram for User Side Login Authentication Invalid Check Valid Search Product Edit Profile View Reports Add to Cart Change Password My Account Order Report Payment Report Cancel Order Make Payment Confirm Order Logout <u>Figure 2 Customer Activity Diagram</u>

> Customer sign in, sign out, create account

This feature is provided to customer so he can sign in, sign out and create account for new customer.

> Search Product

Customer can search the product as per his wish in specific category.

> Add to Cart

Customer can add products to cart which he wants to buy the products.

> Payments

Customer have a privilege to his order he can see his order details.

> Order Details

Customer have a privilege to his order he can see his order details.

Buy Product

Customers can buy product from his cart by doing payment.

> Wish List

Customer can have a wish list for future buying products he can add products in the wish to list.

SYSTEM ANALYSIS

System analysis is the process of gathering and interpreting facts, diagnosing problems, and using the information to recommend improvements on the system. System analysis is a problem-solving activity that requires intensive communication between the system users and system developers.

System analysis or study is an important phase of any system development process. The system is viewed as a whole, the inputs are identified, and the system is subjected to close study to identify the problem areas. The solutions are given as a proposal. The proposal is reviewed on user request and suitable changes are made. This loop ends as soon as the user is satisfied with the proposal.

EXISTING SYSTEM

The current system for shopping is to visit the shop manually and from the available product choose the item farmer want and buying the item by payment of the price of the item.

- ✓ It is less user-friendly.
- ✓ User must go to shop and select products.
- ✓ It is difficult to identify the required product.
- ✓ Description of the product limited.
- ✓ It is a time-consuming process
- ✓ Not in reach of distant users.

PROPOSED SYSTEM

In the proposed system farmers need not go to the shop for buying the products. He can order the product he wish to buy through the application in his Smartphone. The shop owner will be admin of the system. Shop owner can appoint moderators who will help owner in managing the customers and product orders. The system also recommends a home delivery system for the purchased products.

SYSTEM REQUIREMENT SPECIFICATION

Description:

The system consists of two parts. A web application which can provide the online shopping service for the farmers to access the web service from his Smartphone/System. Web application should be able to help the farmers for selecting his item and to help the owner in managing the orders

from the customers.

Problem Statement:

As online shopping became a trend nowadays the regular shops are losing their customers to online brands. Customers have effortless shopping experience and saving time through shopping online. For competing with those online brands, if shops are providing an online portal where their customers can shop through internet and get the products at their doors it will increase the number of customers.

SYSTEM OBJECTIVES

- > To provide a Web application for online shopping of products in an existing shop.
- ➤ To provide an online shopping web site for the same shop.

SYSTEM REQUIREMENTS

NON-FUNCTIONAL REQUIREMENTS

i. EFFICIENCY REQUIREMENT

When an online shopping cart android application implemented customer can purchase product in an efficient manner.

ii. RELIABILITY REQUIREMENT

The system should provide a reliable environment to both farmers and shop owner. All orders should be reaching at the admin without any errors.

iii. USABILITY REQUIREMENT

The Web application is designed for user friendly environment and ease of use.

iv. IMPLEMENTATION REQUIREMENT

Implementation of the system using React in front end with Spring Boot as back end and it will be used for database connectivity. And the database part is developed by MySQL. Responsive web designing is used for making the website compatible for any type of screen.

v. DELIVERY REQUIREMENT

The whole system is expected to be delivered in four months of time with a weekly Evaluation by the project guide.

FUNCTIONAL REQUIREMENTS

USER

> USER LOGIN

Description

This feature used by the user to login into system. A user must login with his username and password to the system after registration. If they are invalid, the user not allowed to enter the system.

Functional Requirement

- Username and password will be provided after user registration is confirmed.
- Password should be hidden from others while typing it in the field

> REGISTER NEW

USER Description of feature

A new user will have to register in the system by providing essential details in order to view the products in the system. The admin must accept new user by unblocking him.

Functional Requirement

• System must be able to verify and validate information.

• The system must encrypt the password of the customer to provide security.

> PURCHASING AN ITEM

Description of feature

The user can add the desired product into his cart by clicking add to cart option on the product. He can view his cart by clicking on the cart button. All products added by cart can be viewed in the cart. User can remove an item from the cart by clicking remove. After confirming the items in the cart, the user can submit the cart by providing a delivery address. On successful submitting the cart will become empty.

Functional Requirement

- System must ensure that, only a registered customer can purchase items.
- Admin account should be secured so that only owner of the shop can access that account

MODERATOR

Description of features

A moderator is considered as a staff who can manage orders for the time being. As a future update moderator may give facility to add and manage his own products. Moderators can reduce the workload of admin. Now moderator has all the privilege of an admin having except managing other moderators. He can manage users and manage products. He can also check the orders and edit his profile.

Functional Requirement

• The system must identify the login of a moderator.

ADMIN

> MANAGE USER

Description of features

The administrator can add user, delete user, view user and block user.

> MANAGE MODERATOR

Description of features

The administrator can add moderator, delete moderator, block moderator and search for a moderator.

> MANAGE PRODUCTS

Description of features

The administrator can add product, delete product, and view product.

> MANAGE ORDER

Description of features

The administrator can view orders and delete orders.

Functional Requirements:

- The system must identify the login of the admin.
- Admin account should be secured so that only owner of the shop can access that account.

MODERATOR

Description of features

A moderator is considered as a staff who can manage orders for the time being. As a future update moderator may give facility to add and manage his own products. Moderators can reduce the workload of admin. Now moderator has all the privilege of an admin having except managing other moderators. He can manage users and manage products. He can also check the orders and edit his profile.

Functional Requirement

• The system must identify the login of a moderator.

SYSTEM DESIGN

System design is the solution for the creation of a new system. This phase focuses on the detailed implementation of the feasible system. Its emphasis on translating design. Specifications to performance specification. System design has two phases of development.

- Logical Design
- Physical Design

During logical design phase the analyst describes inputs (sources), outputs(destinations), databases (data sores) and procedures (data flows) all in a format that meets the user requirements. The analyst also specifies the needs of the user at a level that virtually determines the information flow in and out of the system and the data resources. Here the logical design is done through data flow diagrams and database design. The physical design is followed by physical design or coding. Physical design produces the working system by defining the design specifications, which specify exactly what the candidate system must do. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data and produce the required report on a hard copy or display it on the screen.

INPUT AND OUTPUT DESIGN

INPUT DESIGN:

Input design is the link that ties the information system into the world of its users. The input design involves determining the inputs, validating the data, minimizing the data entry and provides a multi-user facility. Inaccurate inputs are the most common cause of errors in data processing. Errors entered by the data entry operators can be controlled by input design. The user-originated inputs are converted to a computer-based format in the input design. Input data are collected and organized into groups of similar data. Once identified, the appropriate input media are selected for processing. All the input data are validated and if any data violates any conditions, the user is warned by a message. If the data satisfies all the conditions, it is transferred to the appropriate tables in the database. In this project the student details are to be entered at the time of registration. A page is designed for this purpose which is user friendly and easy to use. The design is done such that users get appropriate messages when exceptions occur.

OUTPUT DESIGN:

Computer output is the most important and direct source of information to the user. Output design

IACSD is a very important phase since the output needs to be in an efficient manner. Efficient and intelligible output design improves the system relationship with the user and helps in decision making. Allowing the user to view the sample screen is important because the user is the ultimate judge of the quality of output. The output module of this system is the selected notifications.

DATABASE DESIGN

DATABASE

Databases are the storehouses of data used in the software systems. The data is stored in tables inside the database. Several tables are created for the manipulation of the data for the system. Two essential settings for a database are

- Primary key the field that is unique for all the record occurrences
- Foreign key the field used to set relation between tables

Normalization is a technique to avoid redundancy in the tables.

SYSTEM TOOLS

The various system tools that have been used in developing both the front end and the back end of the project are being discussed in this chapter.

FRONT END:

React is a library which is developed by Facebook are utilized to implement the frontend. React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces or UI components. It is maintained by Facebook and a community of individual developers and companies. React can be used as a base in the development of single page or mobile applications. However, React is only concerned with state management and rendering that state to the DOM, so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality.

BACKEND:

The back end is implemented using MySQL which is used to design databases.

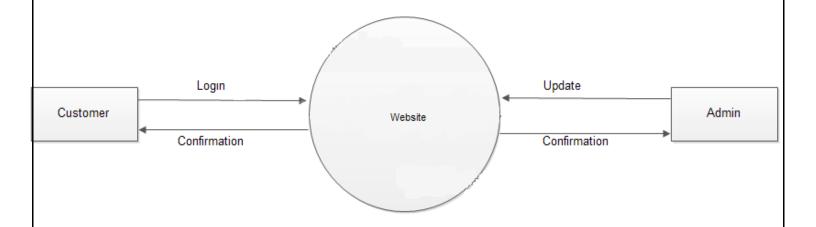
MySQL:

MySQL is the world's second most widely used open-source relational database management system (RDBMS). The SQL phrase stands for Structured Query Language. An application software called Navicert was used to design the tables in MySQL.

Spring-Boot:

This is used to connect MYSQL and fetch data from database and store the data in database. The Spring Framework is an application framework and inversion of control container for the Java platform. The framework's core features can be used by any Java application, but there are extensions for building web applications on top of the Java EE (Enterprise Edition) platform. Although the framework does not impose any specific programming model, it has become popular in the Java community as an addition to the Enterprise JavaBeans (EJB) model. The Spring Framework is Open-source Framework.

0 Level DFD



1 Level DFD for ADMIN

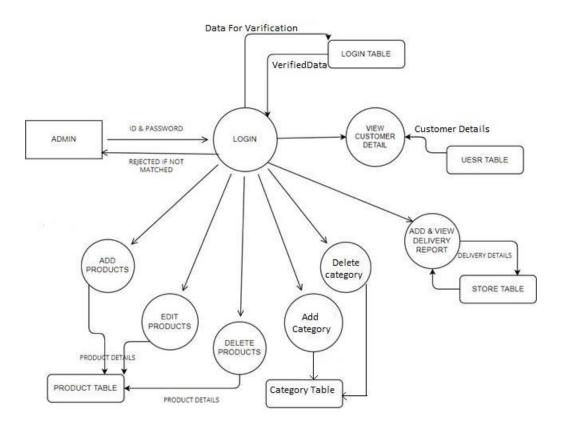


Figure 4 1 Level DFD for ADMIN

1 Level DFD for CUSTOMER

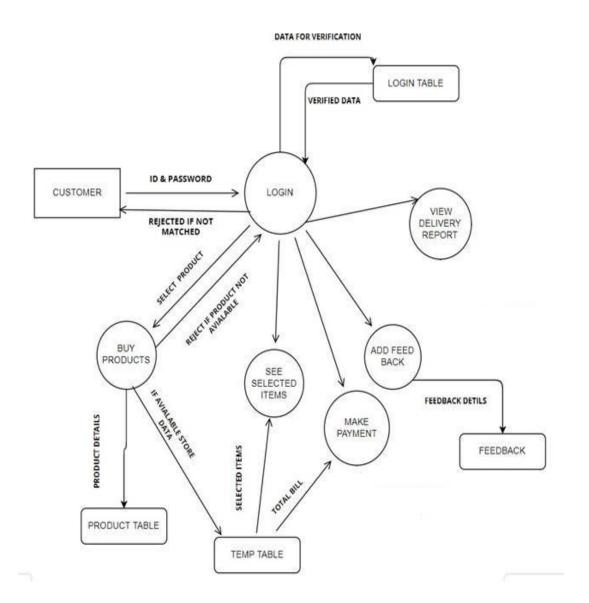


Figure 5 1 Level DFD for CUSTOMER

IACSD E-R Diagram: category_id imageURL categoryName activeStatus categoryDesc Contact No Belongs to userLName Email userID password product_id productMfgDate Date of birth userFname productName productDesc productImage StreetNo productPrice productWeight productQty addressline-2 state userID city productId Address Line-1 product_id HAS-A Orderdate totalAmount prod Qty

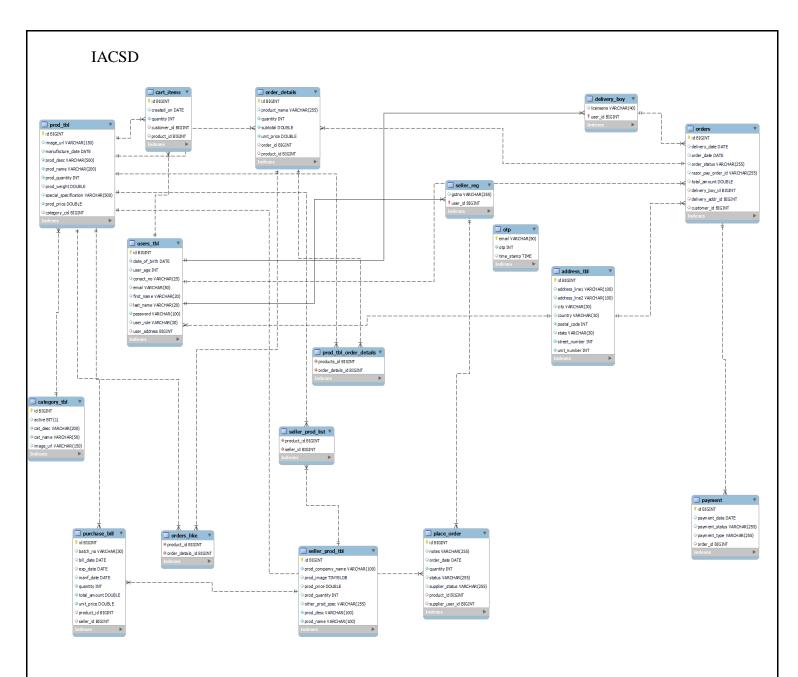


Figure 6 E-R Diagram

Class Diagram

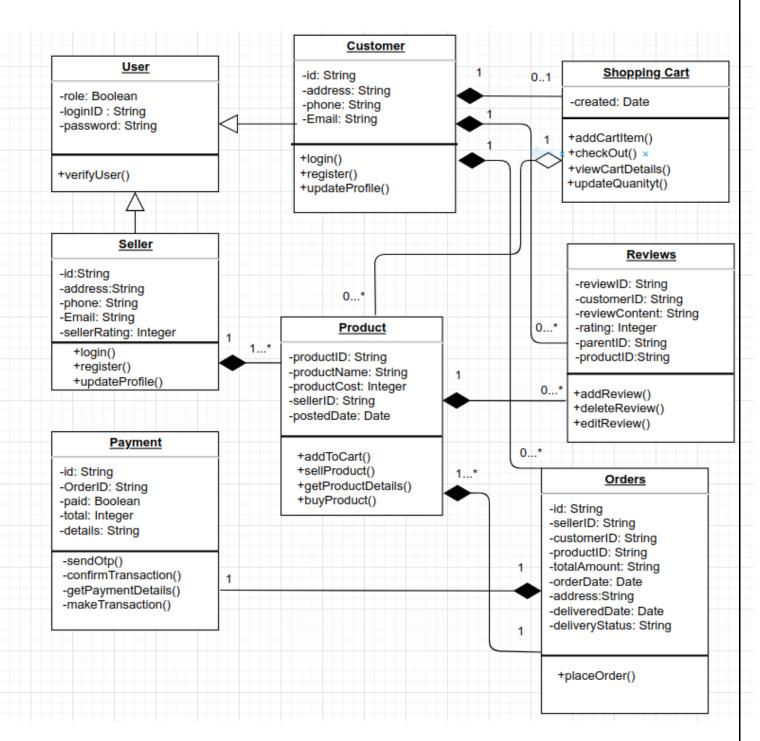


Figure 7 Class Diagram

Sequence Diagram

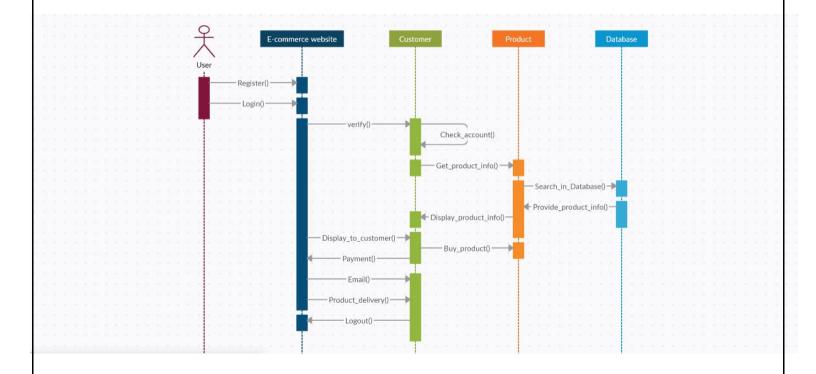
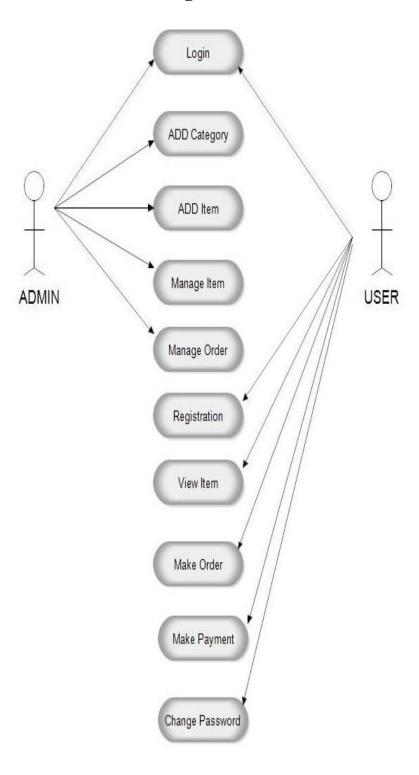


Figure 8 Sequence Diagram

Use case diagram



Tables:

Address:

nysql> desc address_details;					
Field	Туре	Null	Key	Default	Extra
id address1 address2 city country distict insertion_date is_active pincode state update_date userid	bigint varchar(1024) varchar(1024) varchar(100) varchar(100) varchar(100) datetime tinyint(1) varchar(6) varchar(100) datetime bigint	NO YES	PRI	NULL NULL NULL NULL NULL NULL NULL NULL	

Cart:

Field	Туре	Null	Key	Default	Extra
cardid card_no payment_type rating upi_id insertion_date is_active is_order is_payment productid user_id	bigint varchar(255) varchar(255) double varchar(255) datetime tinyint(1) tinyint(1) bit(1) bigint bigint	NO YES NO YES NO YES YES YES YES YES NO NO	PRI	NULL NULL NULL NULL NULL NULL NULL NULL	

customer_details:

Field			I	ı		
emailid varchar(255) NO NULL full_name varchar(255) NO NULL insertion_date datetime YES NULL is_active tinyint(1) YES 1 mobile_number varchar(255) YES NULL update_date datetime YES NULL userid bigint NO NULL	Field	Туре	Null	Key	Default	Extra
1 33-31 2 13-31 13 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	emailid full_name insertion_date is_active mobile_number update_date	varchar(255) varchar(255) datetime tinyint(1) varchar(255) datetime	NO NO YES YES YES YES	PRI	NULL NULL NULL 1 NULL NULL	

feedback:

Field	Туре	Null	Key	Default	Extra
feedback_id feedback insertion_date user_id	bigint varchar(255) datetime bigint	NO YES YES YES	PRI	NULL NULL NULL NULL	

Products:

/sql> desc product;		.	.		.
Field	Туре	Null	Key	Default	Extra
productid insertion_date is_active is_archive product_company product_details product_image_url product_name product_price product_type public_id quantity update_date	bigint datetime tinyint(1) tinyint(1) varchar(255) varchar(255) varchar(255) varchar(255) varchar(255) varchar(255) varchar(255) bigint datetime	NO YES YES YES YES YES NO NO NO YES YES	PRI 	NULL NULL 1 0 NULL NULL NULL NULL NULL NULL NULL NU	

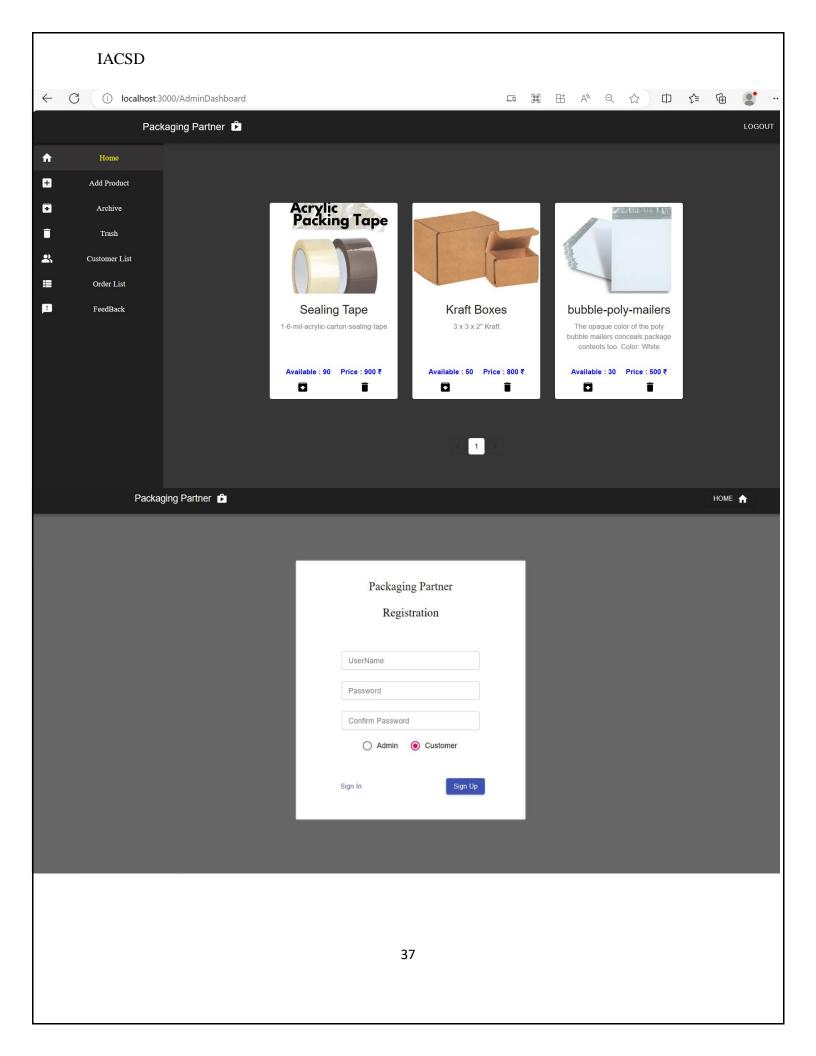
Users:

/sql> desc user;						
Field	Туре	Null	Key	Default	Extra	
user_id insertion_date is_active password role user_name	bigint datetime tinyint(1) varchar(255) varchar(10) varchar(255)	NO YES YES YES NO YES	PRI	NULL NULL 1 NULL NULL NULL		
rows in set (0.00 sec)						

wish_list:

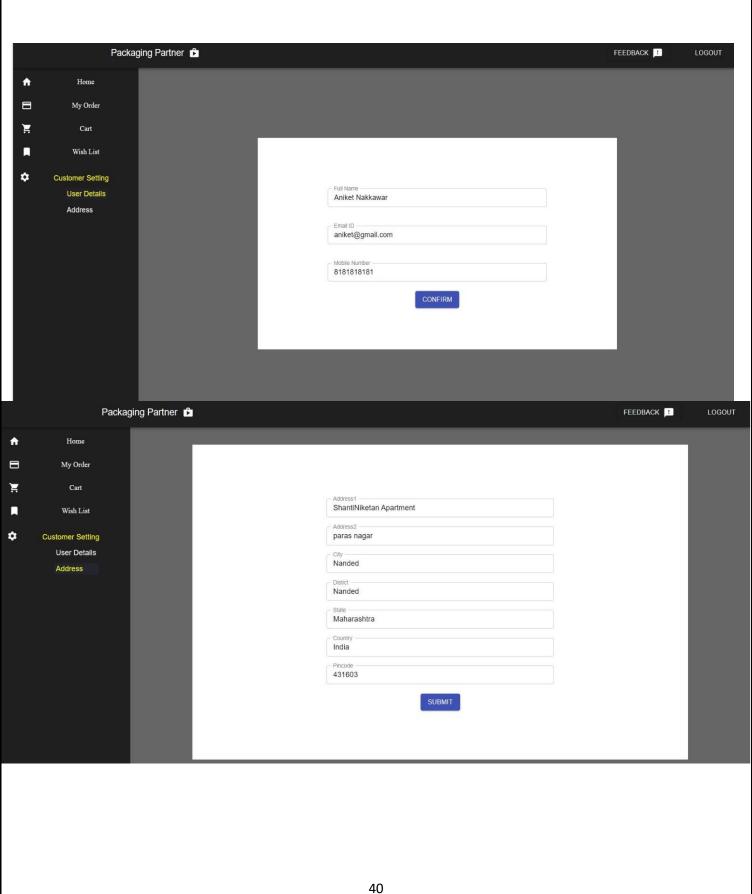
ysql> desc wish_list;						
Field	Туре	Null	Key	Default	Extra	
wish_listid insertion_date is_active productid user_id	bigint datetime tinyint(1) bigint bigint	NO YES YES YES NO	PRI	NULL NULL 1 NULL NULL		

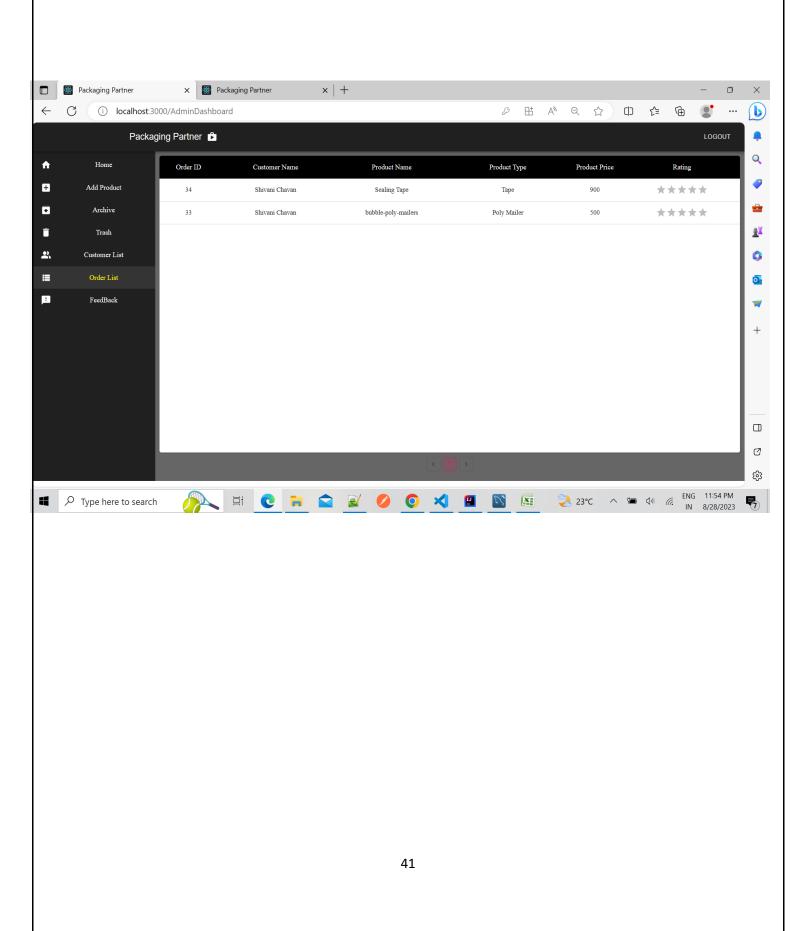
PROJECT DIAGRAMS



IACSD Packaging Partner 🗈 Product Name White Corrugated Mailers Product Description 3 x 3 x 1" White Corrugated Mailers 50 per Bundle Product Type Boxes Product Price 800 Company Packaging Partner Quantity UPLOAD IMAGE 15 ADD PRODUCT C B A Q ☆ i localhost:3000/UserDashboard 0 **₹ ⊕** Packaging Partner 🖒 FEEDBACK : Ħ Home My Order Ħ Acrylic Packing Tape Wish List **‡ Customer Setting** Sealing Tape bubble-poly-mailers The opaque color of the poly bubble mailers conceals package contents too. Color: White 1-6-mil-acrylic-carton-sealing-tape Available : 29 Price : 500 ₹ Available : 89 Price : 900 ₹ MOVE TO CART REMOVE WISHLIST MOVE TO CART REMOVE WISHLIST

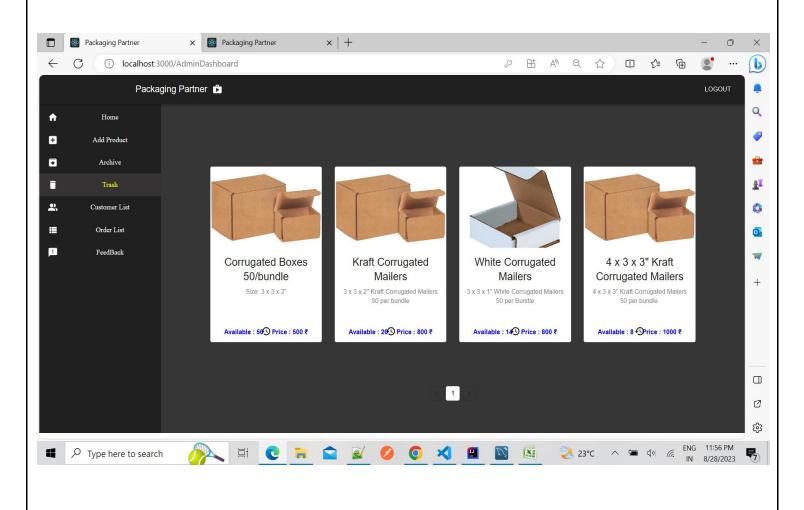
IACSD \leftarrow \mathbb{C} i localhost:3000/UserDashboard P FEEDBACK 📙 Packaging Partner Product Detail Order ID: 33 Product Name: bubble-poly-mailers Product Price : 500 ₹ Product Type : Poly Mailer **Product Comapny: Packaging Partner** Rating: Payment Mode: Card Cash UPI ORDER Card Number — CANCEL 39





IACSD Packaging Partner X Packaging Partner $\times | +$ 0 × i localhost:3000/AdminDashboard \oplus ••• **(b)** Packaging Partner LOGOUT Q Home UserName Full Name Email ID Mobile Number • + Add Product 1234567890 Shivani Shivani Chavan shivu460@gmail.com • Archive KamalKishor Kadam KamalKishor Kadam KamalKishor@gmail.com 0987654321 Î Trash 23 Customer List **(**) Order List o_r FeedBack + \mathbb{C} (3) 23°C ^ 🖨 🕬 // ENG 11:52 PM IN 8/28/2023 ${\cal P}$ Type here to search 42

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IACSD × + × Packaging Partner Packaging Partner X ← C i localhost:3000/UserDashboard 0 H A Q \$ **(b)** Packaging Partner FEEDBACK : Q n Home My Order Ħ Acrylic Packing Tape Wish List <u>₽</u>¥ * Customer Setting 0 User Details Address Sealing Tape bubble-poly-mailers The opaque color of the poly bubble mailers conceals package contents too. Color: White 1-6-mil-acrylic-carton-sealing-tape + ★★★★ CANCLE ORDER ★★★★ CANCLE ORDER 1 Ø (3) ENG 11:53 PM \nearrow Type here to search X 23°C ^ ■ 40 €. IN 8/28/2023 45

CONCLUSION

The project entitled **Packagingpartner.com** was completed successfully.

The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application and an android application for purchasing items from a shop.

This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using React.js, usage of responsive templates, designing of android applications, and management of database using MySQL. The entire system is secured. Also, the project helped us understanding about the development phases of a project and software development life cycle. We learned how to test different features of a project.

This project has given us great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications.

There is a scope for further development in our project to a great extent. A number of features can be added to this system in future like providing moderator more control over products so that each moderator can maintain their own products. Another feature we wished to implement was providing classes for customers so that different offers can be given to each class. System may keep track of history of purchases of each customer and provide suggestions based on their history. These features could have implemented unless the time did not limit us.

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