Raddiwala.com

UCS503 Software Engineering Project Report End-Semester Evaluation

Submitted by:

(102003233) Shivansh Kapoor

(102003528) Aman Agarwal

(102003384) Puranjay Singh

(102003223) Shashi Paswan

BE Third Year, COE

Group No: 1

Submitted to:

Dr. Nitigya Sambyal



Computer Science and Engineering Department
TIET, Patiala
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Project Selection Phase 1.1 Software Bid

UCS 503- Software Engineering Lab

Group: <u>01</u> Dated: 08/08/2022

Team Name: PASS

Team ID: 01

Please enter the names of your Preferred Team Members.

• You are required to form a three to four person teams

• Choose your team members wisely. You will not be allowed to change teams.

Name	Roll No	Project Experience	Programming Language used
Aman Agarwal	102003528	E-commerce Website, Portfolio, Amazon Hackon	HTML, CSS, JS, BOOTSTRAP,C++
Puranjay Singh	102003384	E-commerce Website, Student Data base Management, Amazon Hackon	HTML,CSS,JS, Python, C++
Shivansh Kapoor	102003233	E-commerce Website, Portfolio, MLSC Website, Amazon Hackon	HTML,CSS,JS, MERN STACK
Shashi Paswan	102003223	E commerce Website	Java, C++, HTML,CSS

Programming Language / Environment Experience

List the languages you are most comfortable developing in, **as a team**, in your order ofpreference. Many of the projects involve Java or C/C++ programming.

- 1. Java
- 2. Python
- 3. C++

Choices of Projects:

Please select **4 projects** your team would like to work on, by order of preference: [Write at-least one paragraph for each choice (motivation, reason for choice, feasibility analysis, etc.)]

First Choice	Raddiwala.com - A platform to connect scrap buyers and sellers
Second Choice	Delivering Great Indian Loyalty- Designed and implemented the delivery-day live-location feature in Amazon's existing model using Geolocation and TomTom API. Added the loyalty-program concept in line with amazon's business
Third Choice	Karyance- Karyance is a facial recognition+hand-gesture recognition project that wishes to solve the problems faced by the daily-wage workers and other working class people.
Fourth Choice	Green way - is a one stop destination for all the plant lovers. At green way, find plant products and gardening items to shop from. Apart from that, Green way also has multiple blogs to enlighten all the people interested in gardening and how to go about it.

1.2 Project Overview

India has a significant unorganized sector consisting of highly localized small-scale "kabbadiwalas" or "raddiwalas" as they are popularly known. They are scrap dealers who buy domestic scrap and junk, such as old newspapers, and discarded electronic and metallic items by weight from the homes of people.

The way it works in most parts of the country is that a kabadiwala goes around from place to place calling for people willing to sell their scrap and recyclable waste and is thus dependent on whether the person who is willing to sell hears their call. This is a highly inefficient process for everyone involved. The raddiwala have to spend a lot of time and energy finding potential customers, and for people who have scrap at their homes many times, it simply becomes easier to dump it in the trash rather than waiting for a kabadiwala to come by and buy it from them. This is a rampant problem and ultimately leads to a lot of potentially recyclable material being sent to dumping grounds instead of being collected, recycled and reused.

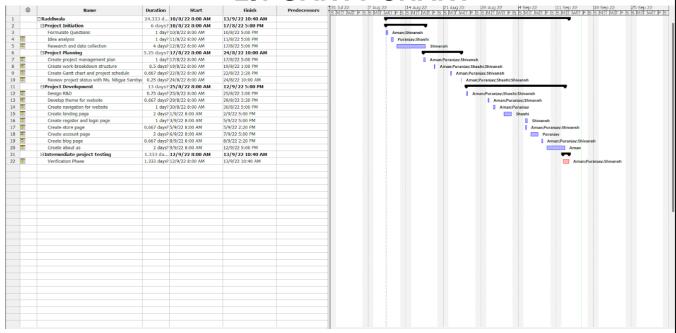
Our product, raddiwala.com intends to solve this by being a platform that bridges the gap between the raddiwala and the people with domestic scrap at their homes connecting them for their benefit. Whenever someone wants to sell their scrap, they can easily book a scrap dealer, aka a raddiwala registered with our platform to come to their place at a convenient time, along with a fixed rate chart so that they know exactly how much money to expect. Consequently, scrap dealers close to the location of the seller would be notified, and the first person to accept it gets the contract.

In addition to being extremely convenient, our product also solves an equally pertinent issue: centralizing, standardizing, and bringing under one roof the significantly decentralized and disorganized sector of raddiwalas. We would be providing all our registered raddiwalas with standardized electronic weighing equipment, modern and sturdy equipment for transporting the scrap, clean uniforms, and so on. Along with that, there would be a uniform, transparent and well-defined rate chart for every type of domestic scrap.

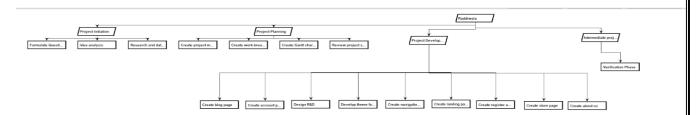
Our Website will be designed to have the capability to make lives simpler and contribute positively to our society, and with the same spirit, our site aspires to contribute to the goal of making our planet greener and promoting recycling and reusing.

2.ANALYSIS PHASE

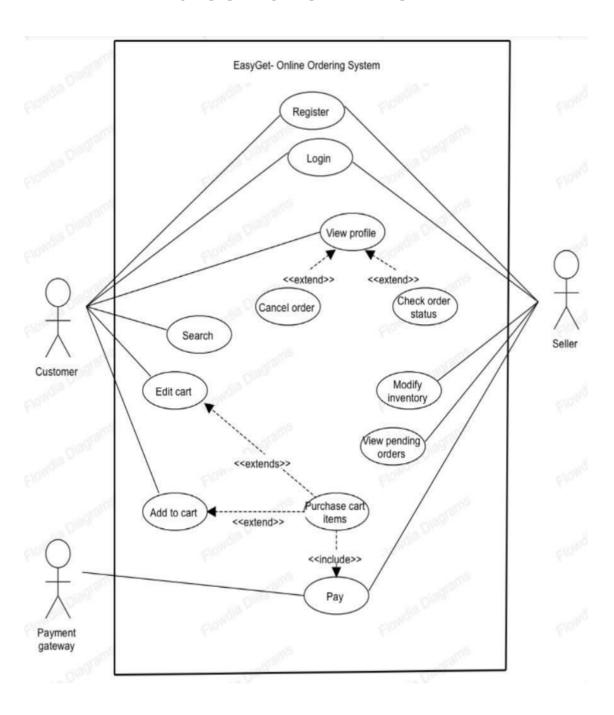
2.1 GANTT CHART



2.2 WORK BREAKDOWN STRUCTURE



2.3 USE CASE DIAGRAM



2.4 USE CASE TEMPLATES

1. Use Case Title	Register
2. Abbreviated Title	Register
3. Use Case ID	1
4. Actors	Customer

5. Description

New users can register themselves as customers using the Register feature by providing valid login credentials and more personal information and other required details.

5.1. Pre Conditions

1. Customer ID should be unique.

5.2. Task Sequence

- 1. Click on Sign Up/Register button.
- 2. Fill out all the columns with relevant info.
- 3. Click on Submit button.

5.3. Post Conditions

1. Customer can now login into his/her account with the registered credentials.

1. Use Case Title	Login
2. Abbreviated Title	Login
3. Use Case ID	2
4. Actors	Customer

5. Description

Customers who have already registered can login into their accounts and place orders or maintain carts.

5.1. Pre Conditions

1. Customer should have a registered account.

5.2. Task Sequence

- Go to the login page.
- 2. Enter your credentials.
- 3. Click on login button.

5.3. Post Conditions

- 1. Customer will be logged into their account if credentials are valid.
- 2. Error message will be displayed if customer has entered wrong credentials.

1. Use Case Title	View Profile
2. Abbreviated Title	View Profile
3. Use Case ID	3
4. Actors	Customer

5. Description

View Profile feature allows the customer to view their personal details, past orders, payment info,etc...

5.1. Pre Conditions

1. Customer must be logged in to his/her account.

5.2. Task Sequence

- 1. Login into your account.
- 2. Click on View Profile button

5.3. Post Conditions

1. Customer profile page will be displayed

1. Use Case Title	Cancel Order
2. Abbreviated Title	Cancel Order
3. Use Case ID	4
4. Actors	Customer

5. Description

The Cancel Order feature allows the customer to cancel the orders they have placed. This has to be done within 5 minutes of placing an order.

5.1. Pre Conditions

- 1. Customers must have placed an order.
- 2. The order placed by the customer should be within 5 minutes of placing the order.

5.2. Task Sequence

- 1. Go to View Profile > My Orders.
- 2. Select the order that is to be cancelled.
- 3. Click on cancel order.

5.3. Post Conditions

- 1. The order will be cancelled.
- 2. Refund will be initiated.

1. Use Case Title	Search
2. Abbreviated Title	Search
3. Use Case ID	5
4. Actors	Customer

5. Description

With this search facility, customer can specify any search criteria to apply to products and find the products he/she needs

5.1. Pre Conditions

Customers must have access to the site.

5.2. Task Sequence

- 1. Search Bar will be shown on the screen.
- 2. Type the name or part of the category of the product you want to search for.
- 3. Click on the search button and you will get desired results.

5.3. Post Conditions

- 1. Customers can view desired results.
- 2. Customers can go for another search.

1. Use Case Title	Edit Cart
2. Abbreviated Title	Edit Cart
3. Use Case ID	6
4. Actors	Customer

5. Description

Edit Cart can allow the customer to modify the quantity of items in the cart or to remove the items from the cart.

5.1. Pre Conditions

1. Customers must be logged in.

5.2. Task Sequence

- 1. Click on the cart button to land on the edit cart page.
- 2. Customers can then use the designated buttons like remove from cart, or the quantity button to edit craft.

5.3. Post Conditions

- 1. Customers can purchase the items in the cart.
- 2. Customers can continue shopping for more items.

1. Use Case Title	Add to cart	
2. Abbreviated Title	Add to cart	
3. Use Case ID	7	
4. Actors	Customer	

5. Description:-

When a customer finds the product they want, they can add the product to the shopping cart. The system stores and tracks the information about products.

5.1. Pre Conditions:-

Customer should be registered and logged in.

5.2. Task Sequence:-

- 1. Customer enter the product to be searched.
- 2. The system searches the product in the database.
- 3.If customer find their product they can add it to cart.

5.3. Post Conditions:-

- 1. Customer can now proceed to payment.
- Customer can also remove the product from cart.

1. Use Case Title	Purchase Items	
2. Abbreviated Title	Purchase Items	
3. Use Case ID	9	
4. Actors	Customer	

5. Description:-

This facility gives customers the facility of selecting a product and adding them to cart and confirming the order and moving towards payment.

5.1. Pre Conditions:-

Customers should be logged in so that they can add to cart the desired product or can pay for it.

5.2. Task Sequence:-

- 1. Customer have to search for their product.
- If they can see their desired product then they have to add the product in cart or can pay for them.

5.3. Post Conditions:-

- 1. Customer are allowed to add products to the cart.
- 2. They can proceed to payment after adding it to the cart.

1. Use Case Title	Pay	
2. Abbreviated Title	Pay	
3. Use Case ID	8	
4. Actors	Customer	

5. Description:-

Using this facility customer can move to checkout and can proceed to payment by selecting one of the payment options.

5.1. Pre Conditions:-

Customer should be logged in and have product in cart for payment.

5.2. Task Sequence:-

- 1. Customer have to select a payment option.
- 2. Now they have to verify their details.
- 3.Confirm their payment.

5.3. Post Conditions:-

- 1.If payment was successful then inform the seller.
- 2.If payment was not successful, inform customer about it and ask them for payment.

1. Use Case Title	View pending orders	
2. Abbreviated Title	View pending orders	
3. Use Case ID	10	
4. Actors	Seller	

5. Description:-

This facility provides sellers with the feature of viewing their pending orders that need to be delivered to the respective customers.

5.1. Pre Conditions:-

Seller must be logged in to their dashboard.

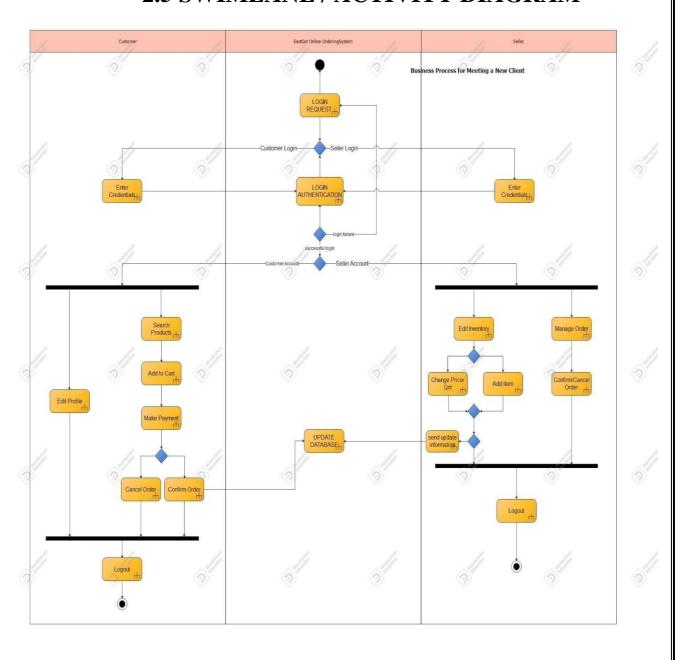
5.2. Task Sequence:-

- 1. Seller will go to their dashboard.
- 2. Then they can see their orders which are pending.

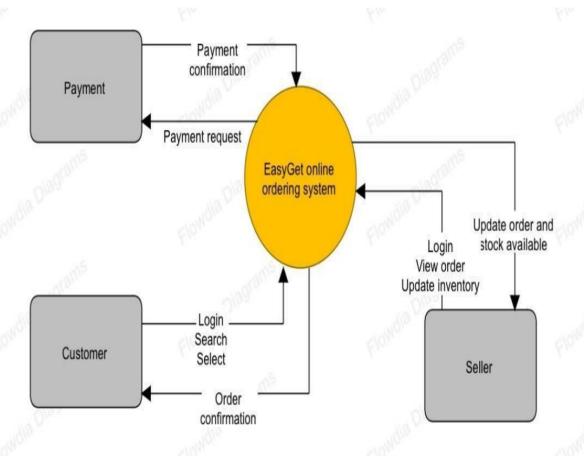
5.3. Post Conditions:-

1. After seeing their pending order if any they have to see their inventory and update it accordingly.

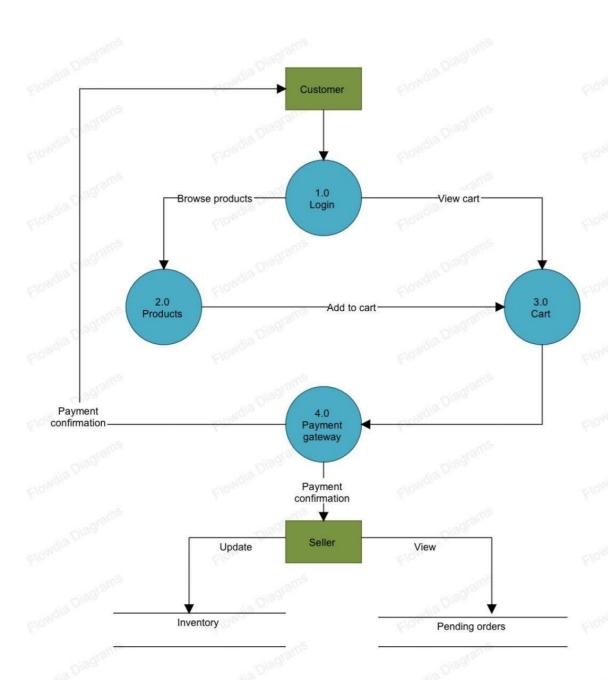
2.5 SWIMLANE / ACTIVITY DIAGRAM



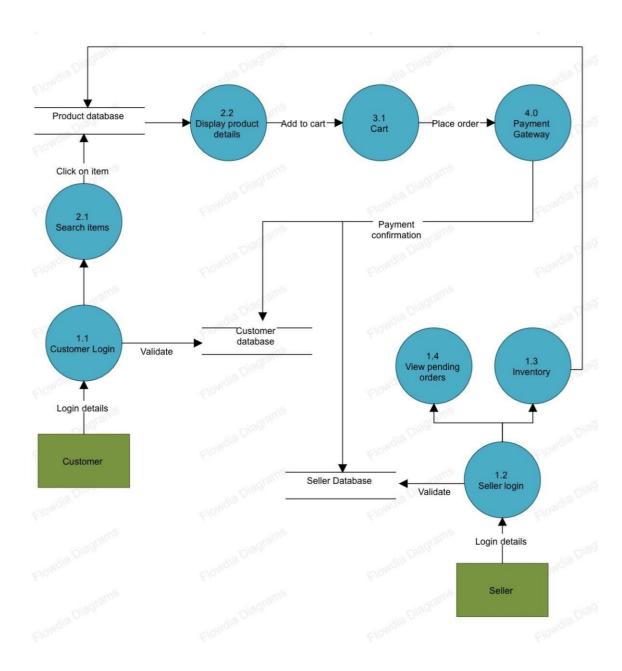
2.6.1 DFD LEVEL 0



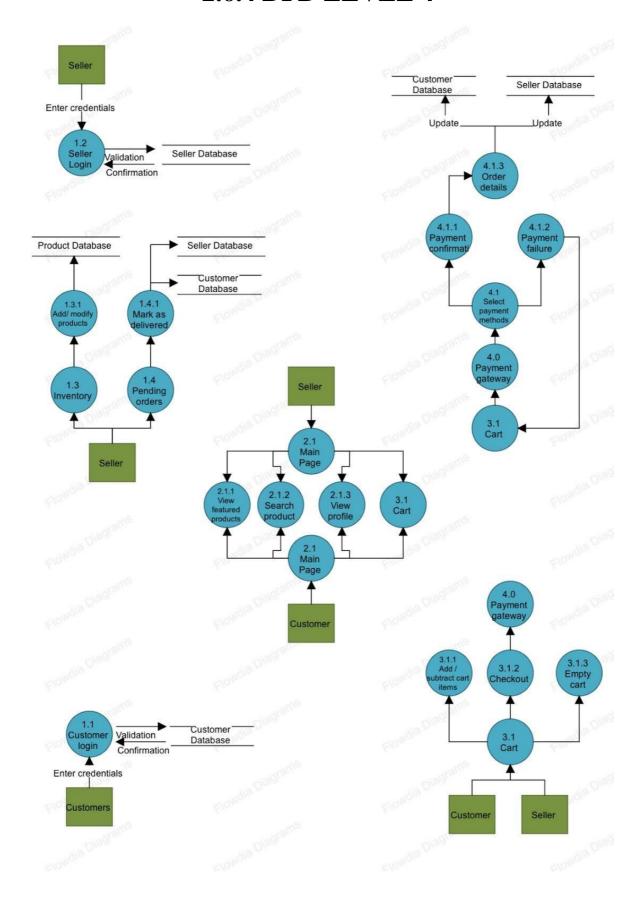
2.6.2 DFD LEVEL 1



2.6.3 DFD LEVEL 2



2.6.4 DFD LEVEL 4



2.7 Software Requirement Specification in IEEE Format

Functional Requirements:

- 1. A login/signup page for the user
- 2. The platform is built for the users so that they could easily book a scrap collector anytime and anyplace they want
- 3. Booking system to book a scrap collector
- 4. Feedback form from the user
- 5. A Rate card for a fixed price for all the scrap products
- 6. Shopping platform inside the website to buy recyclable products
- 7. A map system so that the user could see the live location of the scrap collectors near him
- 8. Chatbot for the user so that he could use the website easily
- 9. Contact us form

Non-functional Requirements:

- 1. Performance Requirements:
- ❖ The performance of the system should be fast and accurate.
- ❖ The system should be able to handle large amounts of data. Thus, it should accommodate high details without any fault.
- 2. Safety Requirements:
- ❖ As a part of the safety requirement, we prefer to keep a backup of the system-generated data in any external device.
- 3. Security Requirements:
- ❖ Utilize certain cryptographic techniques for storing and accessing user login details.
- ❖ Keep a specific log or history of data sets
- ❖ Assign certain functions to different modules
- * Restrict communications between some areas of the program
- 4. Software Quality Attributes:
- ❖ Portability: Software can be used on multiple devices in one instance.
- Availability: This software will be available only until the system on which it is installed is running.
- Scalability: Applicable.
- 5. Business Rules: No specific business rules were taken into an account at this time.

OBJECTIVES

- 1. To provide customers with an easy method to purchase recycled things from various merchants listed on website.
- 2. Using a common platform, to bring together multiple suppliers.
- 3. It would save time, effort and money between the recycler, customer and the seller.

TARGET AUDIENCE

With pollution and scarcity of resources increasing day by day our target audience is anyone who wishes to sell their crap to get the products recycled and anyone who wants to buy recycled products to buy them at the comfort of their home, serving as the amazon for recycled products.

REQUIREMENT ANALYSIS

User Interaction with the website:

The following are the actions that users can take on our web application:

- Searching for products on the home page or throughout the website, and how or on what basis. Products can be found by searching for them by product name, category, brand, and so on.
- Users will be able to maintain a cart, they can add their products, remove their products and can also be able to see their total payment of products in their cart, and then can proceed to checkout with payment.
- Adding products to a wish list. This can help users to add their basic requirements that they want to buy and also add some products that they found of their liking or interest.
- Creating an account with their personal details is mandatory for buying products. The user must be logged in to place orders, while creating an account they have to give their personal details such as their address, phone number etc.

• The customers will be provided with the option to rate the products they buy so that they can help others while exploring products.

Seller console

This part deals with the functionality of sellers that they are provided with:

- Sellers will be able to maintain inventory of their products. They can add or remove products, change their price, and change availability.
- Sellers will be notified when the stock of a product reaches a particular threshold, so that they can refill the stocks before it becomes out of stock and if any issues they will notify customers that a particular product is out of stock.
- Sellers are responsible for adding their product's description images, price (sales/offers), and their own description like who are they and what do they sell.

Admin Console

This aspects deals with the functionality that the admin can control features and includes the following:

- Product Management All product metadata, such as its images, descriptions, seller information, and prices. The administrator should be able to control this data, such as adding, removing, and editing products.
- Content management The front-end design of the website, i.e. the static pages that a user views. To attract and keep the traffic, it's critical to design an appealing and successful website.

Management of inventory and logistics, as well as order fulfillment:

Remember how we add some products to our wish lists and when it's time to buy them, some of the products go out of stock. Or when a sale is announced at midnight, but you log in the next morning to find that the items on sale were purchased the night before. We've all been in similar situations.

This administration is critical on the backend to maintain the website up to date with the most recent figures. All logistics and stock details should be preserved in a robust system, whether new products are added, products are returned or exchanged, or orders are dispatched. Additionally, some organizations require fulfilment systems that can be used by the dispatch and customer service teams once the products have been ordered. As a result, we're including all of these features in our project. We will also provide a database to sellers so that they can see product stock levels and refill them when they reach the threshold limit. If there is an issue, they should notify customers that the item is out of stock. Admin will have access to it as well.

Checkout and Payment for Users

- Before placing an order, users must first create an account and register, as they will be requested to fill out their personal information.
- There are a variety of payment alternatives available, including cash on delivery, e-wallets, and third-party payment gateways. Vendors are chosen based on the needs of the company.
- The costs and techniques of shipping, can either be kept up to date in the backend or set static.

APPLICATION FEATURES AND DESCRIPTION

The user can log in using their account on the website. The features and functions provided to the user will depend on the account type(customer/seller) that they used to authenticate into the web application. The user will be provided with the following features: Customer account-

- Browse available sellers and their products and services
- Place order for the available items (within delivery service hours)
- Add descriptive reviews for the products and store
- Access purchase history
- Maintain a shopping cart

Seller account-

- Maintain an inventory of the products and services offered by the store
- Accept or deny the order requests received
- Make changes in the price of their products and services
- Change the order delivery service hours

SOFTWARE REQUIREMENT

Front end:

- 1. **HTML** HTML is the code that is used to structure a web page and its content. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript
- 2. **CSS** CSS is the language we use to style an HTML document. CSS describes how HTML elements should be displayed.
- 3. **JavaScript** JavaScript is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. It can power features like interactive images, carousels, and forms.

OPERATING ENVIRONMENT

Operating System Constraint

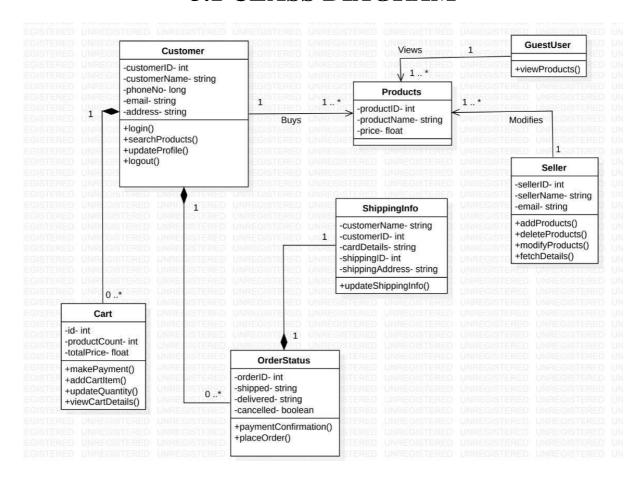
The system should be compatible and will smoothly run- on Web version 6.0 or above.

Device Constraint

The EASY GET's core system and its user(customer/seller) interfaces should be compatible with tablets, mobile phones and desktops/laptops. However, running on small web mobile devices (like smartwatches) is not necessary.

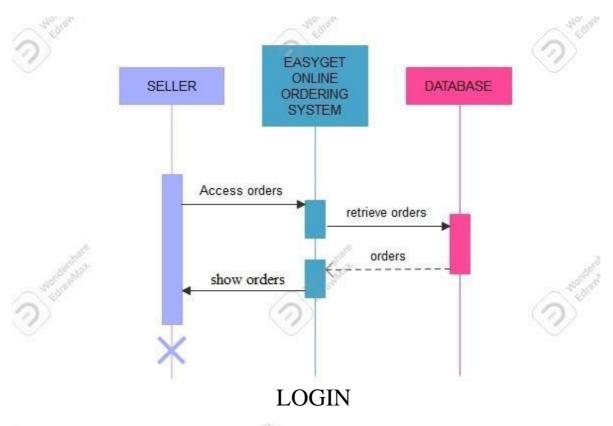
3. DESIGN PHASE

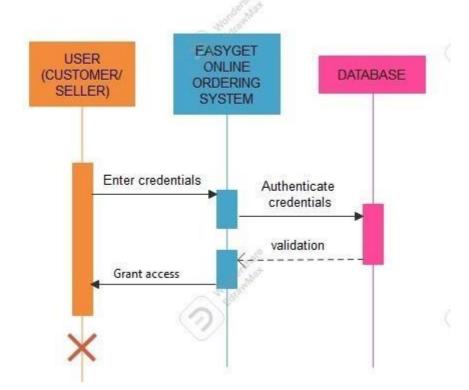
3.1 CLASS DIAGRAM



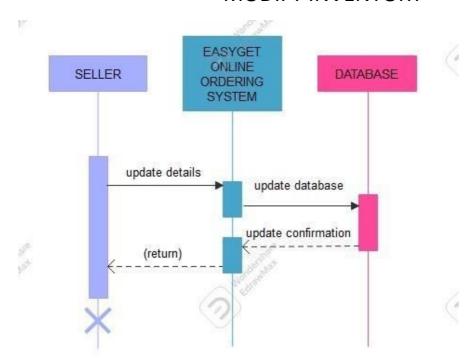
3.2 SEQUENCE DIAGRAM

VIEW PENDING ORDERS

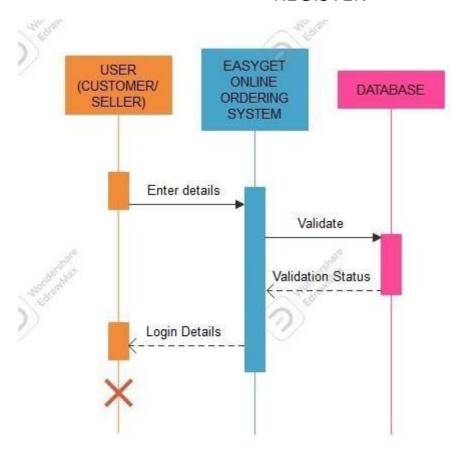




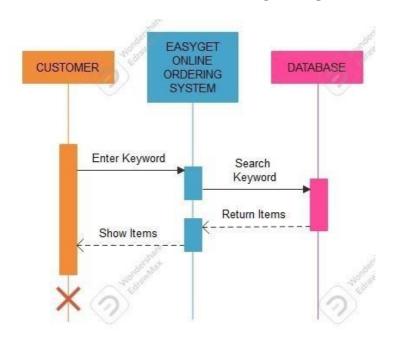
MODIFY INVENTORY



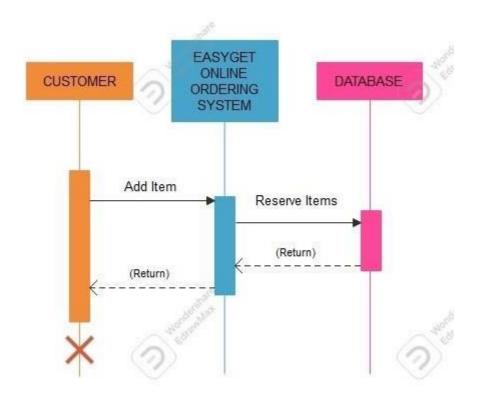
REGISTER



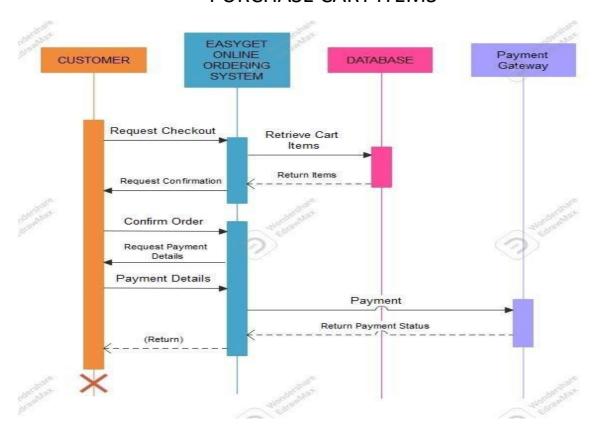
SEARCH



ADD TO CART

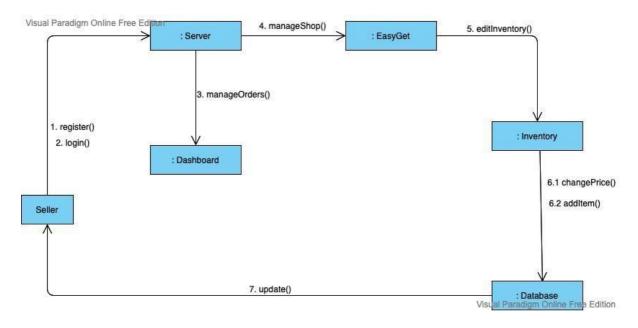


PURCHASE CART ITEMS



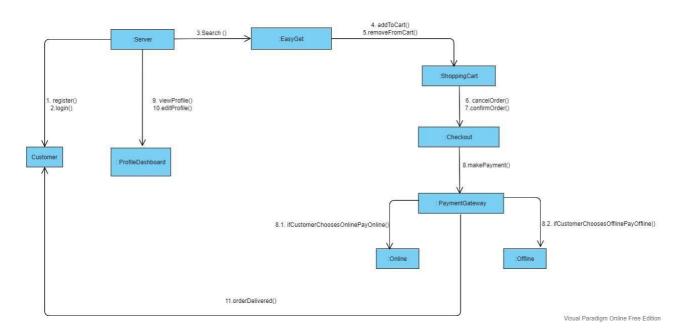
3.3 COLLABORATION DIAGRAM

SELLER

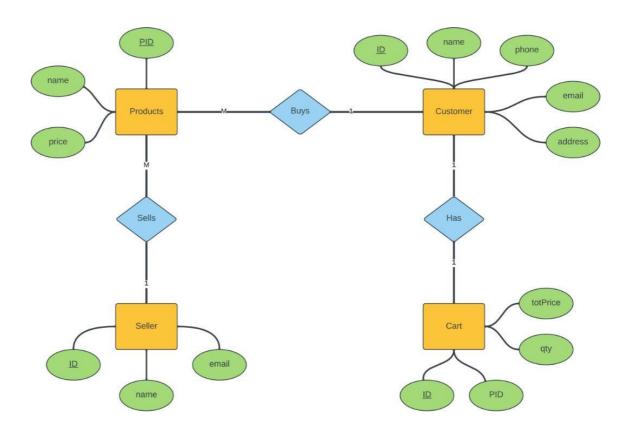


CUSTOMER

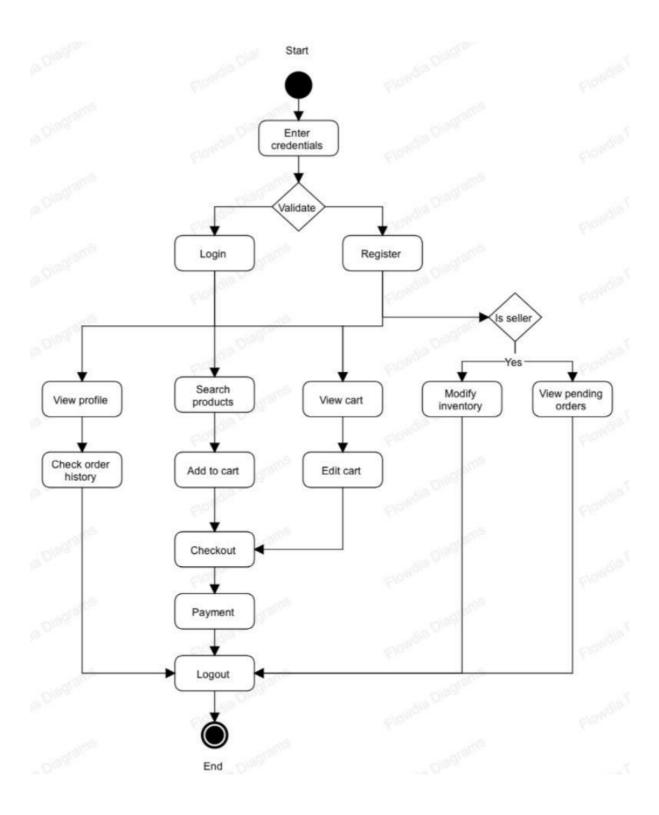
Visual Paradigm Online Free Edition
Collaboration Diagram (Customer point of view)



3.4 DATABASE DIAGRAMS / ER DIAGRAM

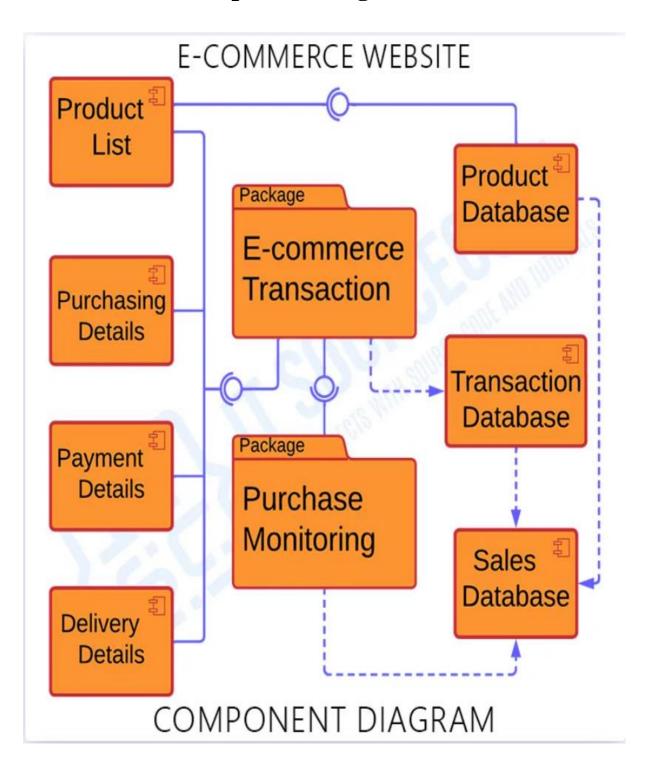


3.5 STATE CHART DIAGRAM

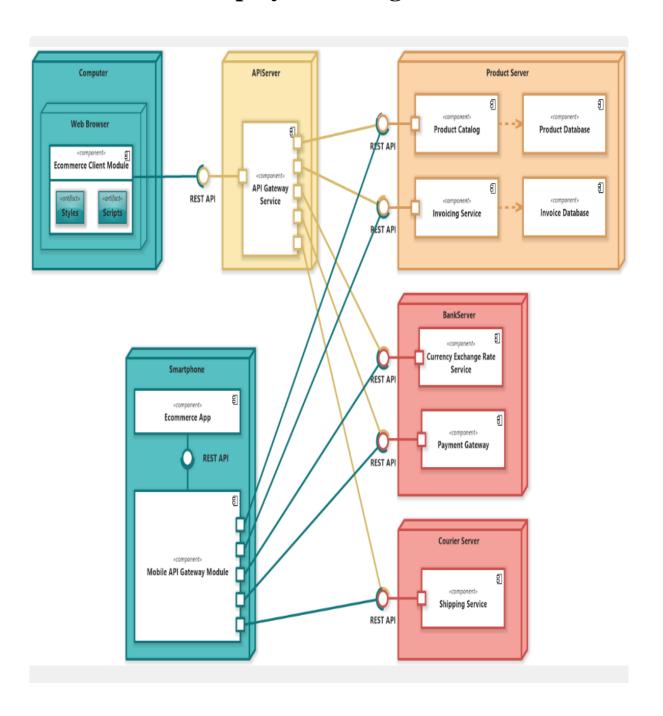


4. IMPLEMENTATION

4.1 Component Diagram

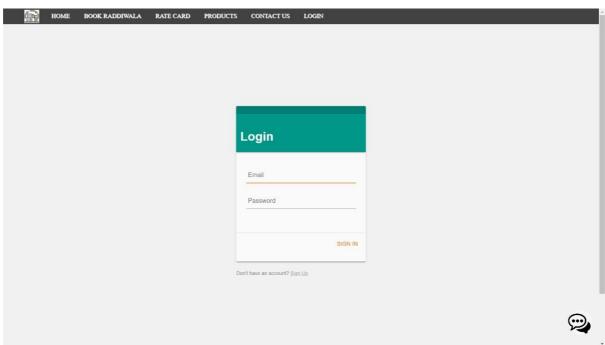


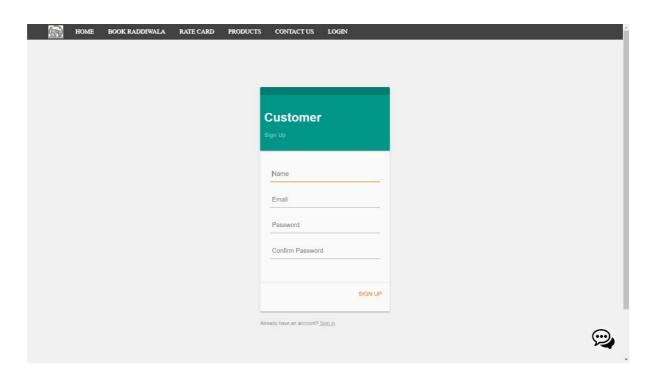
4.2 Deployment Diagram

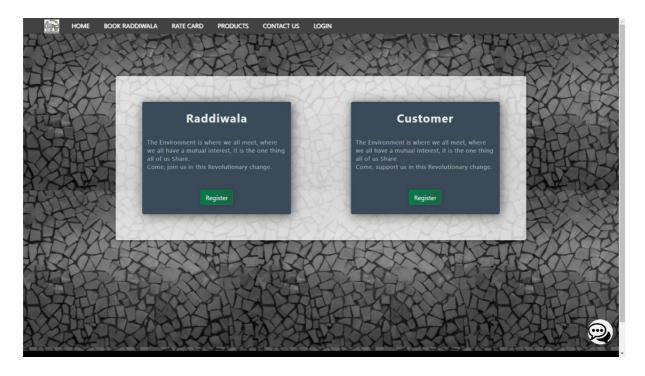


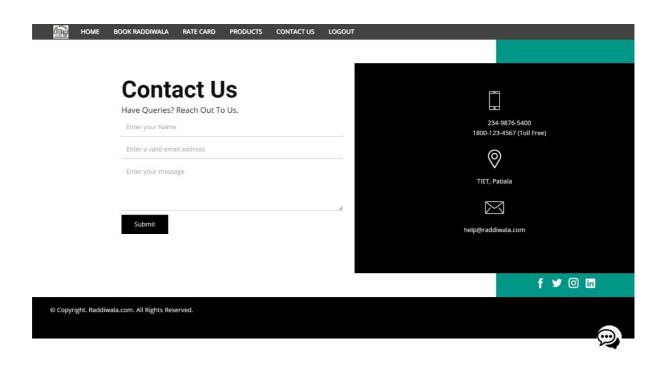
4.3 Screenshots of Working Project

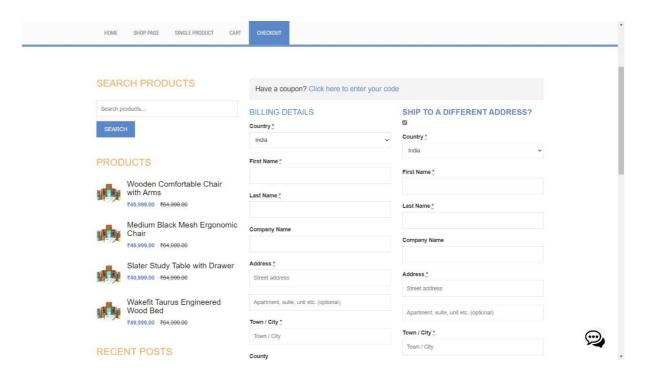


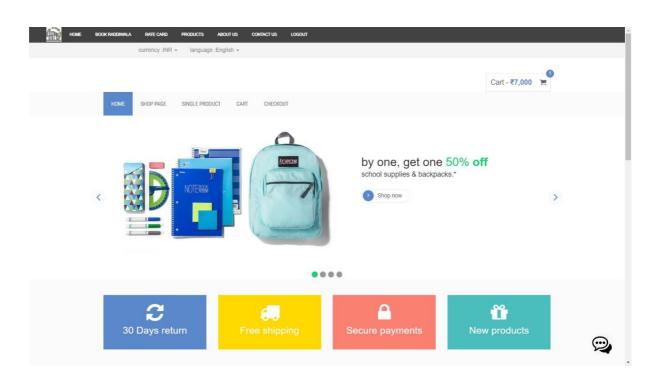


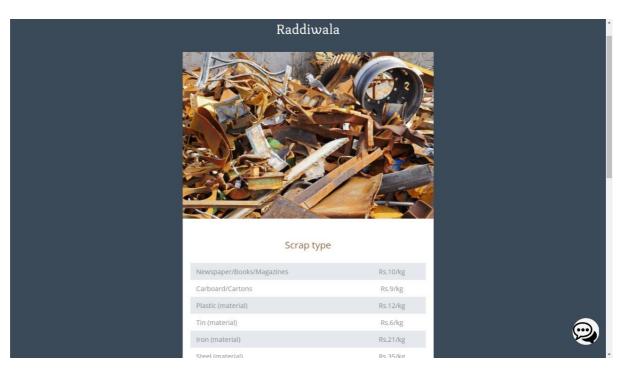




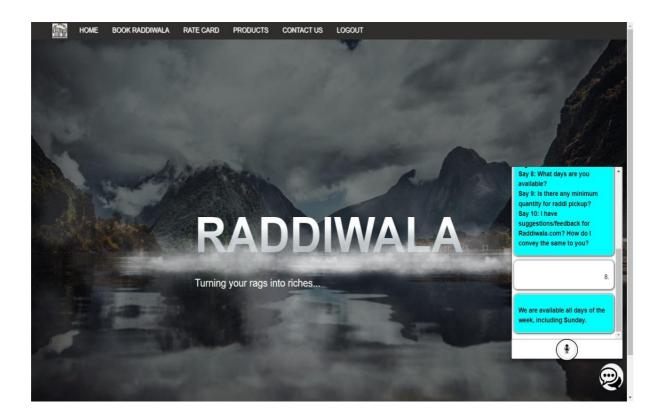








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Email puranjay@gmail.com	Phone Number 9876543210



5. TESTING

TEST CASE-1

Test Case #: 1

System: Raddiwala.com
Designed by: Puranjay Singh
Executed by: Gauri Tiwari

2022

Short Description: Test the Chat Bot Functionality

Test Case Name: Chat Bot Subsystem: Chat Bot Testing Design Date: 15th October, 2022 Execution Date: 19th November,

Pre-Conditions

Open the chat bot on the bottom right

The mic button should be clicked before speaking

The mic should be in working condition

The user's voice should speak the number in the given list to get a reply

Step	Action	Expected System Response	Pass/Fail	Comments
1	Click the Chatbot button present	The system displays a dialogue box with a list of questions	Pass	
2	Speak into the mic for the question you want to ask	The system recognize the voice and returns the required answer	Pass	
3	Give review to the request	Returns a 5 star rating in the dialogue box	Fail	No 5 star review system showing up

TEST CASE-2

Test Case #: 2 **Test Case Name: Registration of User**

System: Raddiwala.com **Designed by: Shivansh Kapoor**

Design Date: 15th October, 2022 **Execution Date: 19th November, 2022 Executed by: Palak Astha**

Short Description: Test the Registration Functionality

Pre-Conditions

Go to the Sign-Up Section Choose if you want to sign up as a Raddiwala or a Customer Enter your Name Enter your Email and Password Click on the Sign Up button

Step	Action	Expected System Response	Pass/Fail	Comments
1	Click on the Sign-Up	The system will display if you want to	Pass	
	Section	sign up as a Raddiwala or Customer		
2	Enter the Details and	The system will sent a verification email	Fail	No verification
	Click on Sign Up Button	to the entered email address		Email is received
3	Enter login details and	Now we get logged into the website	Pass	
	Click on Login Button			
4	Check the Post			
	Condition-1			

Post-Conditions

The user gets registered and his de	tails get stored in the database.
-------------------------------------	-----------------------------------

TEST CASE-3

Test Case #: 3 Test Case Name: Placing an Order

System: Raddiwala.com

Designed by: Aman Agarwal

Design Date: 15th October, 2022

Executed by: Kanishka Gupta Execution Date: 19th November, 2022

Short Description: Test the Order Functionality

Pre-Conditions

Go to the Products Section Select a product from the Home section Go to the Checkout Section Enter the Required Details in the Forms Click on the Place Order Button

Step	Action	Expected System Response	Pass/Fail	Comments
1	Go to the Products Section	The system will open a shopping platform	Pass	
2	Click on add to cart	The system will add the product to your cart	Pass	
3	Go to Checkout and fill the form details and click on the Place Order Section	The system should redirect to a payment gateway	Fail	The payment gateway not working
4	Check the Post Condition-1			

Post-Conditions

 The user order gets placed and his details get stored in the data 	nase.
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TEST CASE-4

Test Case #: 4 Test Case Name: Book Raddiwala

System: Raddiwala.com

Designed by: Aman Agarwal and Shashi Paswan

Subsystem: Book Raddiwala Testing

Design Date: 15th October, 2022

Executed by: Dishika Gupta Execution Date: 19th November, 2022

Short Description: Test the Raddiwala Functionality

Pre-Conditions

Go to the Book Raddiwala Section Select the date and time you want to book a Raddiwala for Fill in the details of the Form Click on the Book Raddiwala Button

Step	Action	Expected System Response	Pass/Fail	Comments
1	Click the Book Raddiwala on Navbar	The system will open a Form	Pass	
2	Enter the required details and click on the book button	The system will book a raddiwala for the user	Pass	
3	Click on Cancel Raddiwala	The system will cancel the current booking	Fail	The button is not working
4	Check the Post Condition-1			

Post-Conditions

1. The raddiwala gets booked for the user and his details get stored in the database.