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Design and implementation of a web application searching for a new life of unwanted Items

The Engineering thesis
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Abstract

Every new piece of technology that is introduced to the market is accompanied by a set of ground-breaking new features, and the purpose of these features is to fulfil the needs of the user community. There are many innovations that enter the market and then leave it, but some of them have an impact on the market, bring about significant change, and remain at the forefront. In this study, I have developed a web application for selling and buying used products considering students as a seller. Users have the ability to buy or sell previously owned products using this service. The Seller is able to sell the products through this Service by simply creating a account for the web application by filling in the relevant information, and the Customer is able to search for the appropriate product through this Service. I did research on the recommendation system in order to provide user-relevant recommendations. I did this so that the system would be useful for users to acquire ideas for purchasing additional similar products, which would in turn improve users' knowledge.

In this study, I have used latest web technologies such as HTML, CSS, Bootstrap, Javascript, Ajax and JQuery. Also I have used open source PHP as a programming language and database as MySQL.

Keywords : Used Products, Old Products, Students, Seller, Buyer, E-Commerce, PHP, Web Technologies, MySQL.

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Chapter – 1 : Overview

"New Life for Old Product" web application is intended to be intuitive and easy to understand to take care of the prerequisites of both item buyers and item dealers. It will be similar to a website for an online store where customers may buy and sell goods without leaving the convenience of their own homes by using the Internet. An online product store is a virtual store that can be found on the Internet. It allows customers to explore the catalogue and select products that are of interest to them. Customers can also add a product to the website in order to sell it. Users of the website will be able to search for products on the site by making use of a variety of search filters. A person can submit an online order to buy a product on the website after making their selection of the product that best suits their needs.

Even if the majority of the time the contact is made directly from the buyer to the seller, the platforms that establish the link between buyers and sellers have the ability to intervene in the way that individuals manage the transaction. However, due to the fact that the website is what makes the transaction possible, the platform is one of the most critical components of the whole process. In addition, this website is one of the sources that provide "direct interest to purchasers."

The New Life for Old Product platform is a consumer-to-consumer (C2C) marketplace that sells previously owned used products, such as mobile phones, and pre-loved consumer and home products.

The New Life for Old Product website offers a straightforward answer to the challenges associated with selling, purchasing, exchanging, conversing about, organising, and meeting others in close proximity to oneself, regardless of where one may currently reside.

1.1 Scope

Given the current environmental and social climate, the need to save as many resources as possible is paramount. Being students of the modern period, we appreciate the many benefits provided by today's cutting-edge technologies. What we should do is put it to work solving actual problems. This study develops and deploys a campus-wide application for buying and selling used goods, providing a venue for students to effortlessly trade their unwanted possessions for others' needs. It helps students save money and is good for the planet. The potential for a second hand market on campus is enormous. Provided it was handled responsibly, it would be a boon to educational institutions. Now more than ever, cutting-edge technology has a profound impact on people's daily lives. Smart phones have become ubiquitous, and people use them for everything from social networking and making purchases to playing games and arranging takeout. It's become common practise among college students. Because of this, there is a need for specialised software to facilitate the buying and selling of used goods on college campuses.

Purpose

The purpose of the New Life for Old Product platform is to facilitate consumer-to-consumer sales, with a focus on users in developing economies, with the goal of giving those individuals a convenient, trustworthy, and secure environment in which to do so.

1.2 Objective /Goals

The main objective of the New Life for Old Product website is to provide a safer and more reliable platform for individuals to buy and sell used goods online, on their own terms and conditions. Buying and selling pre-owned goods online has recently become commonplace. Both the buyers and the vendors benefit from this. Thanks to computers and the internet, even a man in the middle of nowhere may trade or purchase used goods from anywhere in the globe.

1.3 Features

- In lieu of physically purchasing the item, customers can have it delivered to their door.
- With a laptops and desktops available, consumers have greater access to the marketplace.

- The ability to pay online is a real possibility.
- Time and money are both conserved by using this approach.
- Negotiate with verified sellers online as you shop from the comfort of your own home.
- Find used products depending on the preferences.
- The website was built to provide a pleasant, easy, and satisfying shopping experience. It claims to provide a state-of-the-art interface that makes it simple to find what you're looking for and make a quick profit off of your wares.
- The shopper appreciates the opportunity to look around, compare prices, haggle, and form an opinion about the product's worth before making a final purchase decision.

1.4 Background

As people's standard of living rises, they tend to accumulate more and more discarded goods that aren't in usable condition. In order to help people deal with their surplus of unused possessions, it is necessary to create a platform where they may list the objects they want to sell. At the same time, all members can shop for their needs by searching and browsing the site. However, most second-hand shopping apps are still built on older web technology platforms, and there is still a lack of mature second-hand online shopping apps that use the most up-to-date web technology platform in the current software industry. Consequently, it will be cutting-edge to create a web app for buying and selling used goods online that takes advantage of the most recent advancements in web technology. Laptops and desktops have become ubiquitous, and this application will help consumers get the product information they need and do tasks quickly and easily.

1.5 Problem Statement

The term "online shopping" is now commonly used around the globe. Because of its ease of use and quick responses, the internet has become a popular marketplace for buying and selling goods. The issue arises because it takes a lot of work and time for users (sellers) to get their used product out there on the commercial market. However, with the use of a smartphone app like eBay, LetGo, 5miles, or any of a number of others, the seller can sit back at home and wait for someone to buy their old goods. It's a more efficient means of rapidly amassing wealth. Following this, users (customers) must come to the store at particular times as offline stores typically impose restriction on the opening times. This

is because most stores have certain opening hours, and customers are generally too busy with their own lives to make it to the store at those times anyhow.

Because of the convenience of being able to shop 24/7 from any location, more and more consumers are turning to online retailers. Finally, the offline enterprise is hampered by location-based constraints and cannot be run from just about anyplace. This is due to the fact that customers dislike having to travel to physical stores, which is why they prefer to do their shopping online or on their mobile phones. As a result, it is preferable to buy online, either via a desktop computer or a mobile device, due to the greater selection, the convenience of always being able to shop at your leisure, and the mobility of the experience.

1.6 Modules

User Registration and Sign In: On the website, there will be an appropriate signup interface for users who have not yet registered an account there. By providing the appropriate information in the website's sign-in interface, a user who has already created an account will have the ability to access the site.

View Products: On the website, user will be able to access all of the products that are currently offered in an organised manner. Any user, registered or not, can read information about available items and can view the complete specifics of any product, including its name, photos, price, product uploading date, and other relevant details. Guests can also browse information about available products.

Search Products: Any user, registered or not, has the ability to search the website for things that are currently for sale there. You can narrow your search results by using a variety of parameters, such as the product name, product category, price, etc. If the system determines that the user's requirements have been met, the output will be presented in the appropriate manner.

Upload Products: If a person who has already registered wishes to sell a product, he or she will be required to upload the product data. The user will then upload all of the relevant facts—including the product's name, category name, price, photos, and so on—to the website after logging in. These details include the product itself. Within the next twenty-four hours, a representative will get in touch with the product's owner and retrieve it from him or her.

Update details of uploaded products: If a user is logged in and has uploaded a product to the website, that user will have the ability to modify and change the product's price as well as any other information regarding the product.

Buy products: In order to properly place an order on the website and purchase an item, a user first needs to successfully log in. In order to purchase the item of their choosing, a user who has already registered must first fill out all of the order details. After the user has finished entering their information, they will be taken to the payment section.

Manage profile and Account: When a registered user successfully logs in to the website, that user will have the ability to change any of the information contained in his or her profile, as well as the password that protects his or her account.

Change Password: User can change his/her own password.

Logout: User can logout from own account.

1.7 Limitation of Work

This proposed project has the following restrictions:

- This application facilitates the purchasing and selling process, however it is restricted to just dealing with used items.
- The constraints on the item category apply limited to certain types of things, like handbags, electronics, and clothing.
- This application did not provide any shipment management features.

1.8 Tools & Technologies

Front end: HTML, CSS, JavaScript

1. HTML: HTML is used to create and save web document. E.g. Notepad/Notepad++
2. CSS : (Cascading Style Sheets) Create attractive Layout
3. Bootstrap : responsive design mobile freindly site
4. JavaScript: it is a programming language, commonly use with web browsers.

Back end: PHP, MySQL

1. PHP: Hypertext Preprocessor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML, XML, or other document types, as per client request. PHP is open source software.

2. MySQL: MySQL is a database, widely used for accessing querying, updating, and managing data in databases.

Software Requirement (any one)

XAMPP Server

WAMP Server

MAMP Server

LAMP Server

System Requirements

Windows: 7 or newer

The system should have up to 2 GB RAM minimum requirement for the application.

Chapter - 2 : System Analysis & Design

It is becoming increasingly difficult to conceive of modern life without the use of computers. Whether you need to make a reservation at a train station, purchase movie tickets online, conduct financial transactions, or research a topic in a library, you will find access to a computer. Nowadays, computers can be found in just about any industry, making it crucial to learn about and construct efficient computerised systems.

It takes knowledge, competence, and the ability to follow a process in order to build a system like this. Several approaches have been developed by specialists in this area to do this. The Waterfall Model is a Classical Approach. Subsequently, several additional models, including as the Prototype Model, the Object Oriented Model, the Dynamic Systems Development Model, and many others, gained widespread acceptance as valid frameworks for creating working systems. Anyone working in the rapidly expanding IT sector needs at least a cursory familiarity with the software development life cycle. An in-depth familiarity with these foundational approaches to system development is crucial for students with career aspirations in the discipline.

2.1 System Analysis

Information about the current system is obtained and analysed through the systems analysis process, which then identifies issues, analyses business needs, and proposes solutions. To put it another way, systems analysis is the process of recognising, learning about, and analysing a system in order to build a blueprint for designing that system so that it can accomplish its intended goals. The following are some of the goals that are pursued when conducting a system analysis.

- In order to gain an understanding of how the current system works.
- To conduct a user requirements analysis in preparation for the launch of a computer-based information system.
- In order to create a rational model of a workable solution in order to solve problems.

An in-depth review of all relevant facets of the business is what systems analysis is all about, and the results of this analysis form the foundation of the proposed system. Either a brand-new system or an update to the current system may be proposed. An analytical method for learning about a system, systems analysis is based on reason. Focus is on

gathering information about the system's existing state, users' needs, and potential solutions.

2.2 System Design

System design is the procedure of creating a system's structure, modules, components, interfaces, and data flows. System Analysis is the procedure of breaking down a system into its constituent parts in order to define how well those parts work together to achieve the specified goals. The objective of the System Design phase is to furnish the necessary specifics about the system and its components so that they can be built in accordance with the entities described by the architectural models and perspectives.

Elements of a System

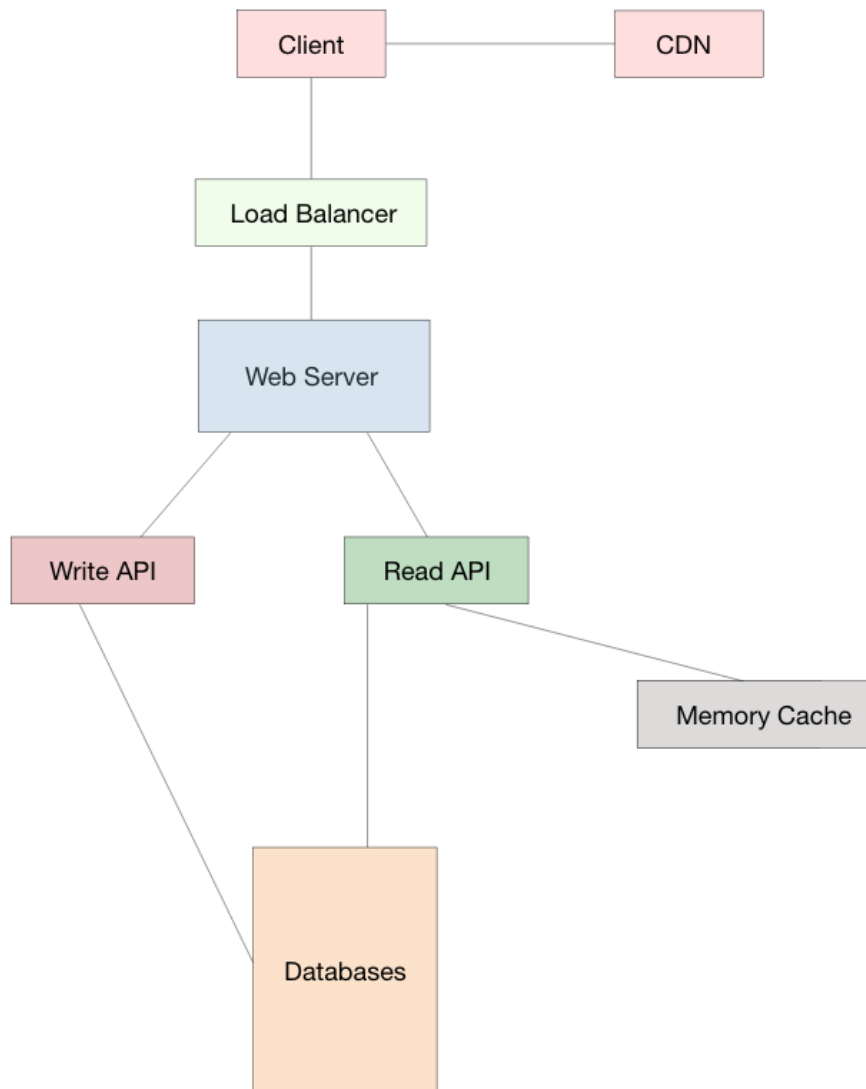


Figure – 2.1 : System Elements [3]

Architecture

This is the conceptual model, which specifies the system's behaviour in addition to its structure and other perspectives. Flowcharts are a useful tool for illustrating the architecture as well as representing it.

Modules

These are the parts of a system that are responsible for performing one particular function. The system is composed of a mixture of all of the modules.

Components

This delivers a specific function or a series of functions that are tied to one another. They are constructed from different modules.

Interfaces

This is the interface through which the various parts of the system communicate and interact with one another.

Data

This pertains to the administration of the flow of information and data.

2.3 Use Case

A use case is a description of how a person will really use that process or technology to accomplish their goals. Despite it is most often applied to computer programmes, the phrase is not limited to the realm of software.

Each use case necessitates the following three elements:

- The term "actor," sometimes known as "user," can be used to describe either a single person or a collection of users. Actors engage in dialogue with processes.
- System, in this context, refers to the set of steps that must be taken to get the intended outcome.
- The intended result, a satisfying encounter for the user.

Seller UseCase

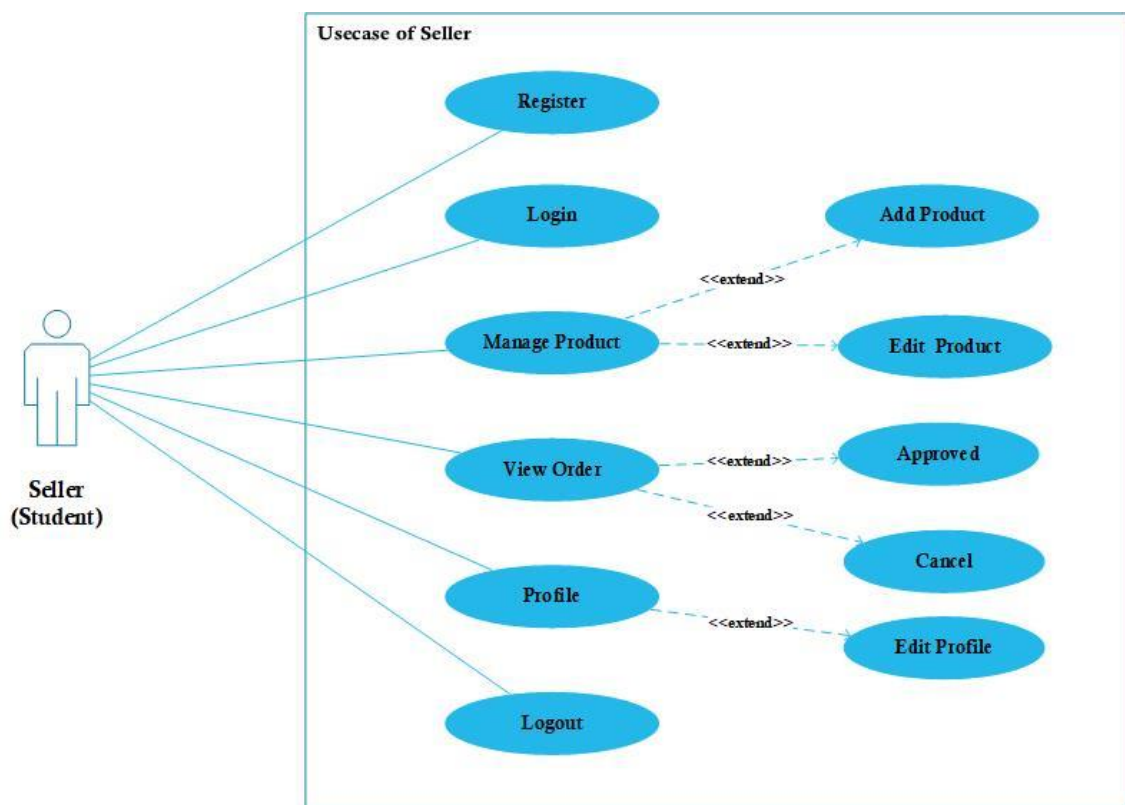


Figure – 2.2: Seller UseCase [Own Development]

In the above use case diagram, there is one actor named Seller. There are sum of six use cases that address the particular usefulness. Seller usecase can enroll, login, oversee item, view request, profile and logout.

Buyer UseCase

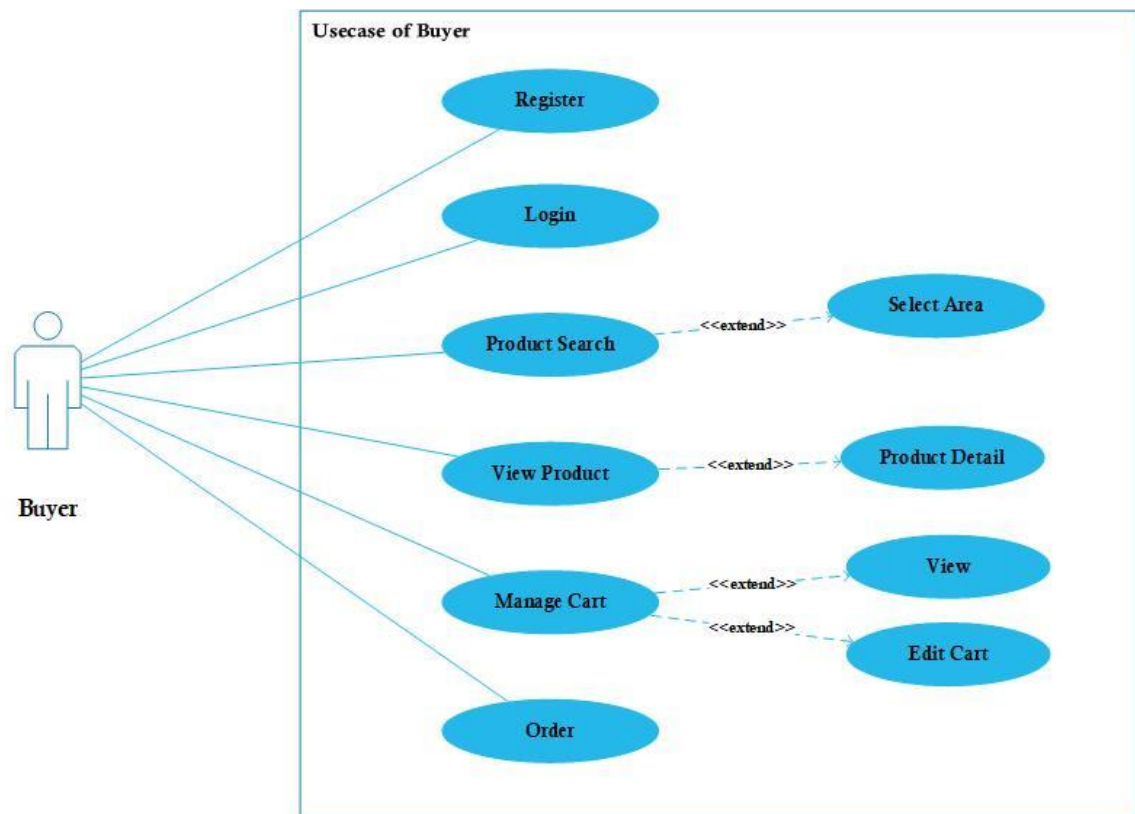


Figure – 2.3 : Buyer UseCase [Own Development]

In the above use case graph buyer is the actor. There are sum of six use cases that address the particular usefulness. Buyer can choose register, login, item search, view item, oversee cart and request.

2.4 Activity Diagram

An activity diagram is a type of flowchart that depicts the sequential completion of individual jobs. In a sense, activity is akin to a system process. An activity diagram's principal use is to record the operational processes of a system.

When attempting to visually represent a business process, activity diagrams are often employed. They can also dissect a use case diagram and give a thorough explanation of its parts. The represented actions can happen at different times. The "starting state" and "ending state" of an activity diagram are necessary in both circumstances.

Seller Manage Product

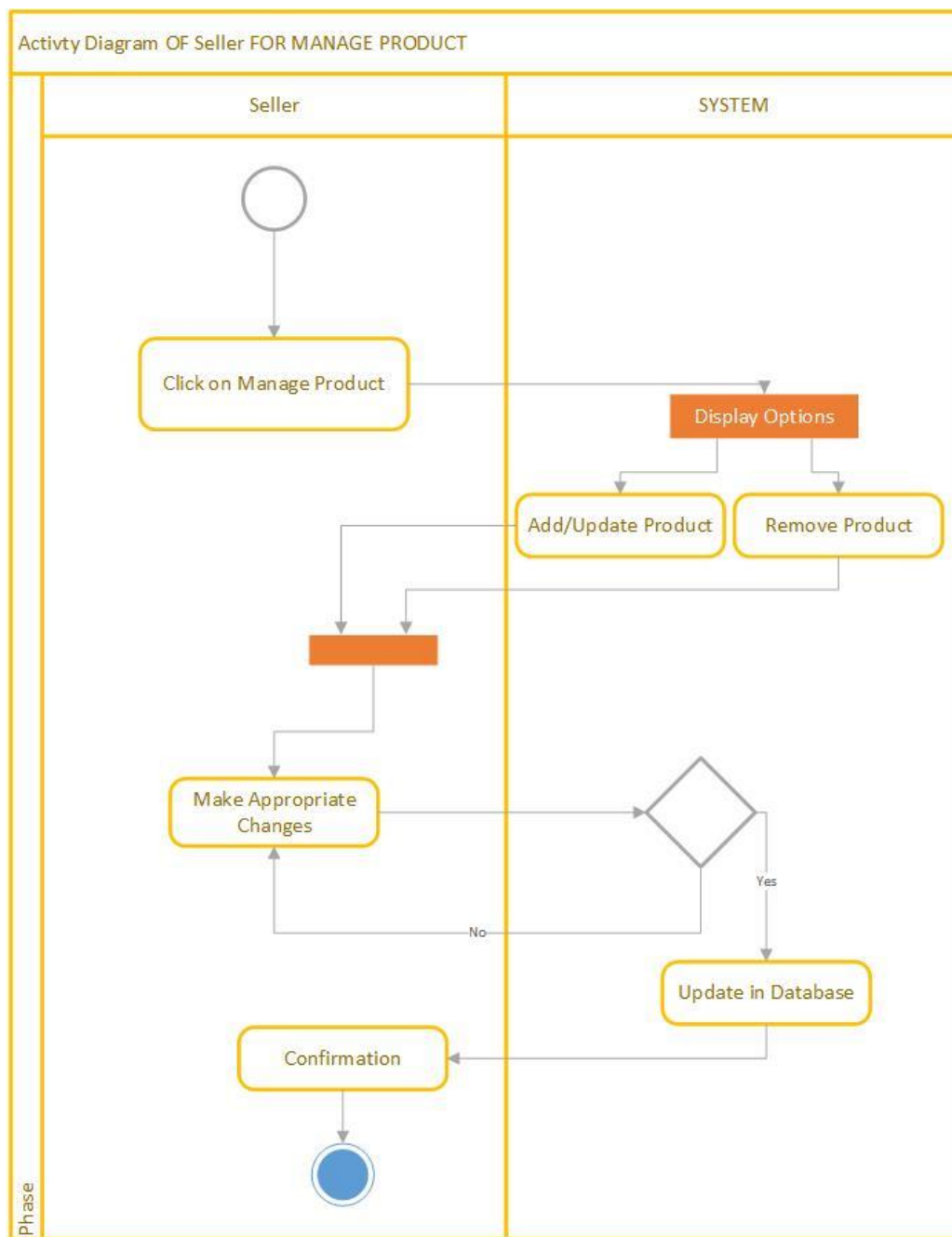


Figure – 2.4 : Seller Manage Product [Own Development]

As found in figure-2.4, merchant can tap on Oversee Item then, at that point, show the Choice Add/update item and eliminate item. After dealer roll out proper improvements in item, condition check in the event that it is valid, update in data set action perform. Subsequent to playing out the action, perform affirmation action, after at last the cycle is ended at end node.

Seller Order View

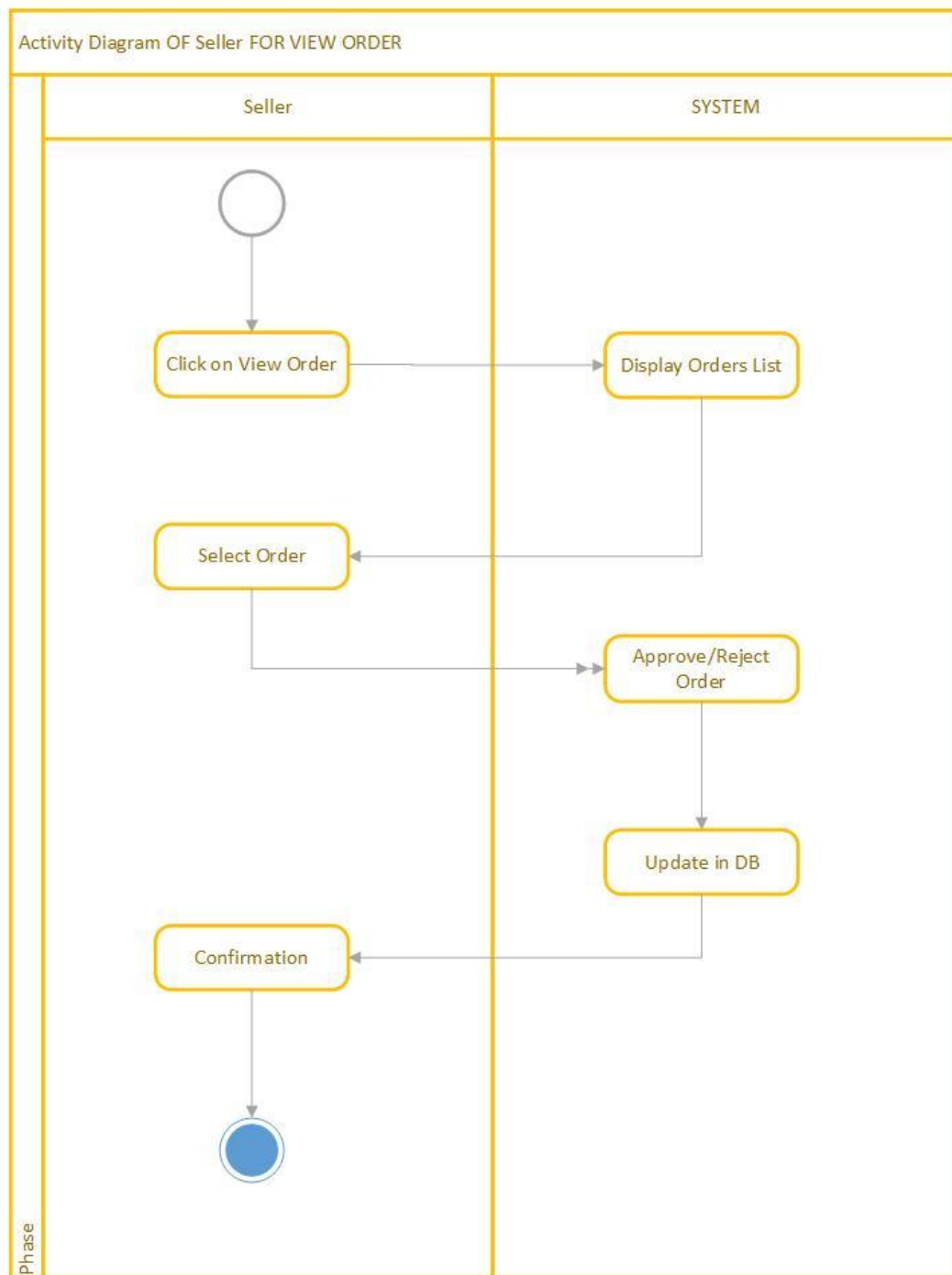


Figure – 2.5 : Seller Order View [Own Development]

The above figure-2.5 portrays vender orders. First merchant view requests and afterward chooses orders and in light of the data it supports or rejects orders.

Buyer Login

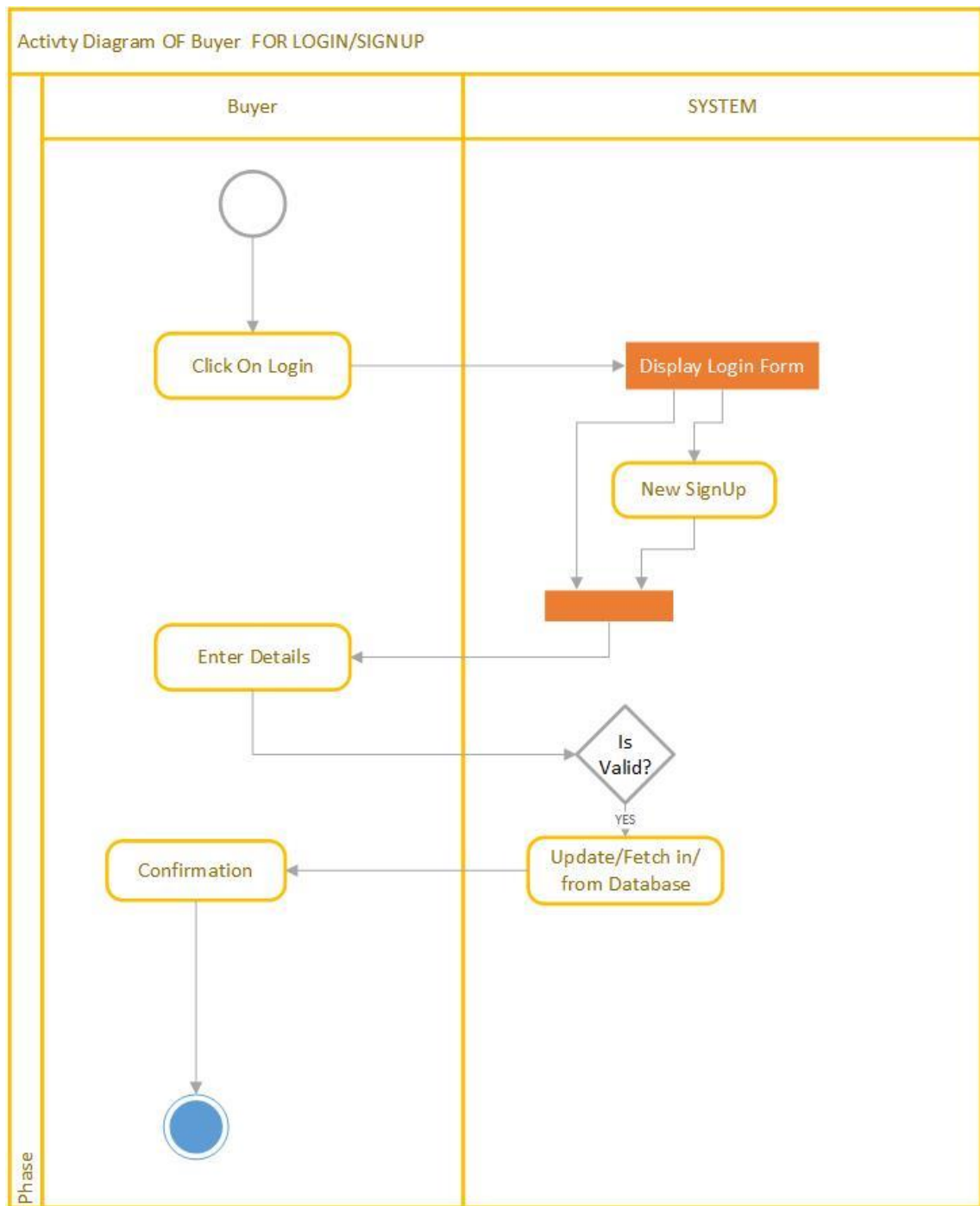


Figure – 2.6 : Buyer Login [Own Development]

In the above action outline, purchaser login is performed. Purchaser click on login subsequent to entering certifications. Whenever qualifications are approved affirmation message will be shown.

Buyer Search Product

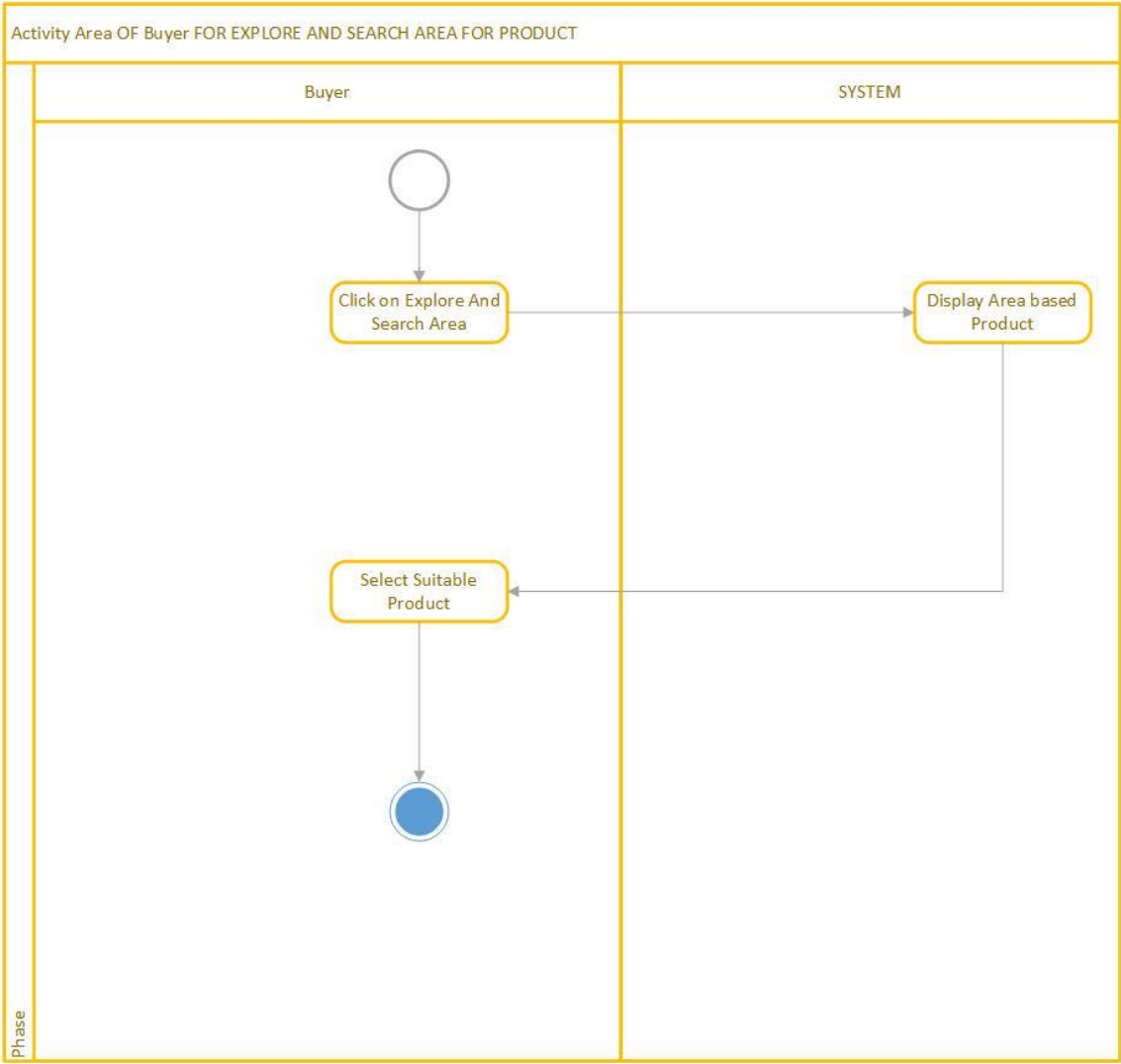


Figure – 2.7 : Buyer Search [Own Development]

In the above figure-2.7, it addresses purchaser search items by region.

Buyer Order Product

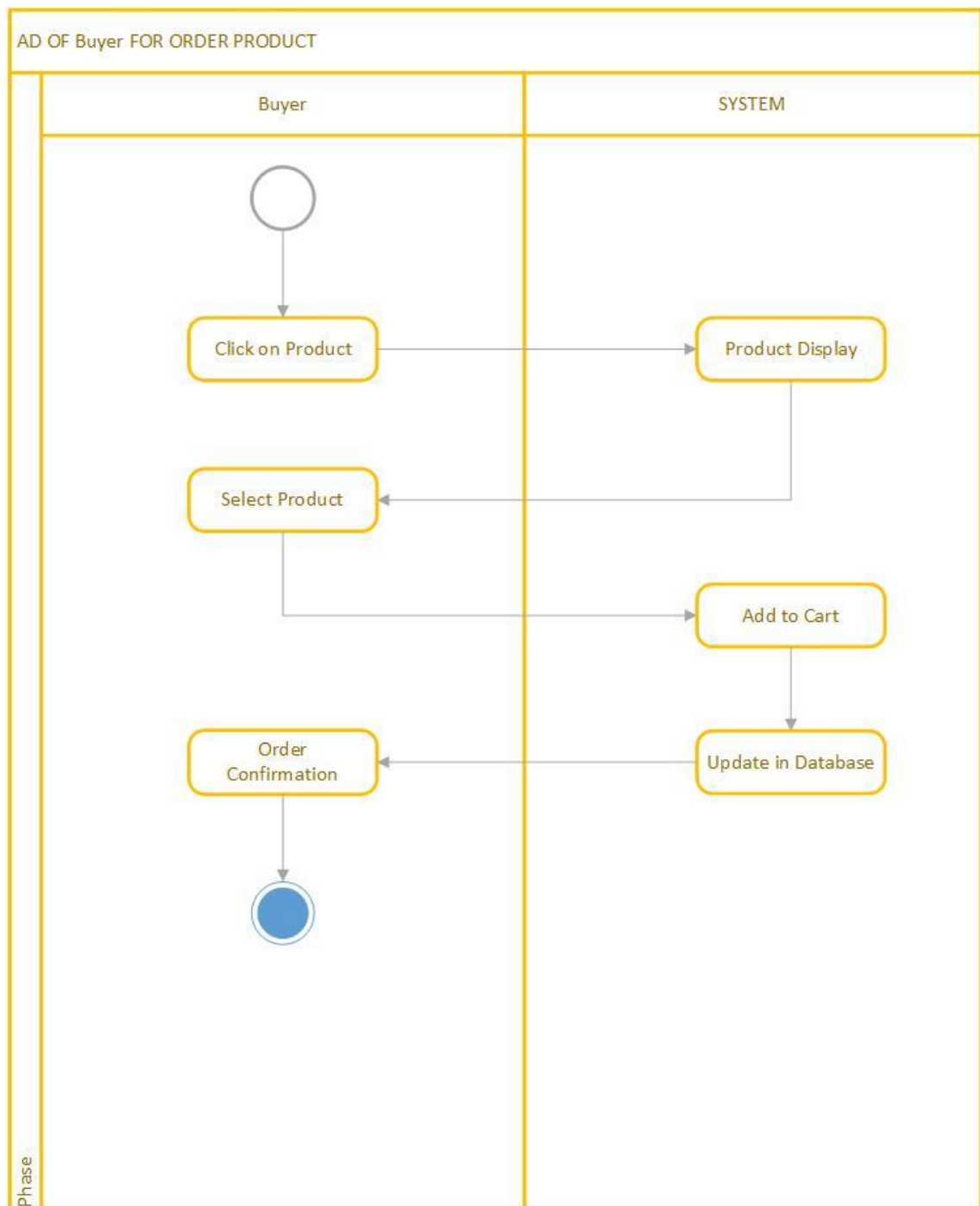


Figure – 2.8 : Buyer Order [Own Development]

Figure-2.8 represents buyer order activity. First buyer selects product and adds to cart. Once verified buyer confirms the order.

2.5 Data Dictionary

The term "data dictionary" is used to describe a database that contains information on data assets, such as descriptions of such assets and the relationships between them. Consider it a list with descriptive text for each table, field, and column. A data dictionary's primary goal is to provide a shared conceptualization of data resources inside a data organisation.

Metadata about data elements can also be found in a Data Dictionary. With the aid of the metadata found in a Data Dictionary, the scope, features, and rules for using and applying the data items may be more accurately specified.

Seller						
Column	Type	Null	Default	Links to	Comments	Media (MIME) type
sh_id (<i>Primary</i>)	int(5)	No				
sh_name	varchar(100)	No				
sh_ongame	varchar(100)	No				
sh_address	varchar(200)	No				
sh_mob	varchar(12)	No				
sh_email	varchar(50)	No				
sh_pass	varchar(30)	No				
sh_image	varchar(300)	No				
sh_pan	varchar(300)	No				
sh_regim	varchar(300)	No				
sh_status	int(5)	No				
sharea	varchar(200)	No				
shpin	int(6)	No				

Table 2.1 : Seller Table

In the above given seller table are stored the data of sellers.

Buyer						
Column	Type	Null	Default	Links to	Comments	Media (MIME) type
u_id (<i>Primary</i>)	int(5)	No				
u_fname	varchar(50)	No				
u_lname	varchar(50)	No				
u_address	varchar(100)	No				
u_email	varchar(50)	No				
u_pass	varchar(20)	No				
u_mob	varchar(12)	No				
u_status	int(2)	No				
area	varchar(200)	No				
pin	int(6)	No				

Table 2.2 : Buyer Table

In the above given buyer table are stored the data of buyers.

Product_Master						
Column	Type	Null	Default	Links to	Comments	Media (MIME) type
it_id (<i>Primary</i>)	int(5)	No				
c_id	int(5)	Yes	NULL			
subc_id	int(5)	Yes	NULL			
it_name	varchar(50)	No				
it_desc	varchar(200)	No				
it_price	int(11)	No				
im1	varchar(100)	No				
im2	varchar(100)	Yes	NULL			
im3	varchar(100)	Yes	NULL			
im4	varchar(100)	Yes	NULL			
remark	varchar(50)	No				
it_status	int(5)	No				
sh_id	int(5)	No				

Table – 2.3 : Product Table

In the above given product_master table are stored the data of all the products added by the sellers.

Cart						
Column	Type	Null	Default	Links to	Comments	Media (MIME) type
cart_id (<i>Primary</i>)	int(11)	No				
cust_id	int(5)	No				
sh_id	int(5)	No				
subc_id	int(11)	No	0			
it_id	int(5)	No				
price	int(5)	No				
qty	int(11)	No	1			

Table – 2.4 : Cart Table

In the above given cart table are stored the data related to cart.

Orders						
Column	Type	Null	Default	Links to	Comments	Media (MIME) type
o_id (<i>Primary</i>)	int(11)	No				
order_number	int(11)	No				
cust_id	int(5)	No				
sh_id	int(5)	No				
subc_id	int(11)	Yes	0			
it_id	int(5)	No				
price	int(5)	No				
qty	int(11)	No				
ostatus	int(5)	No	0			

Table – 2.5 : Orders Table

In the above given order table are stored the data of orders.

2.6 Sequence Diagram

The purpose of a sequence diagram is to graphically represent the interaction that takes place between different objects in a sequential order, or the order in which these interactions actually occur. There are several names for a sequence diagram. These two labels can be used interchangeably. Sequence diagrams are visual representations of the interactions between parts of a system and the steps they take to complete a task. These diagrams see widespread use in the corporate world and among software developers as a tool for documenting and comprehending a variety of system needs, both new and current.

Seller Sequence Diagram

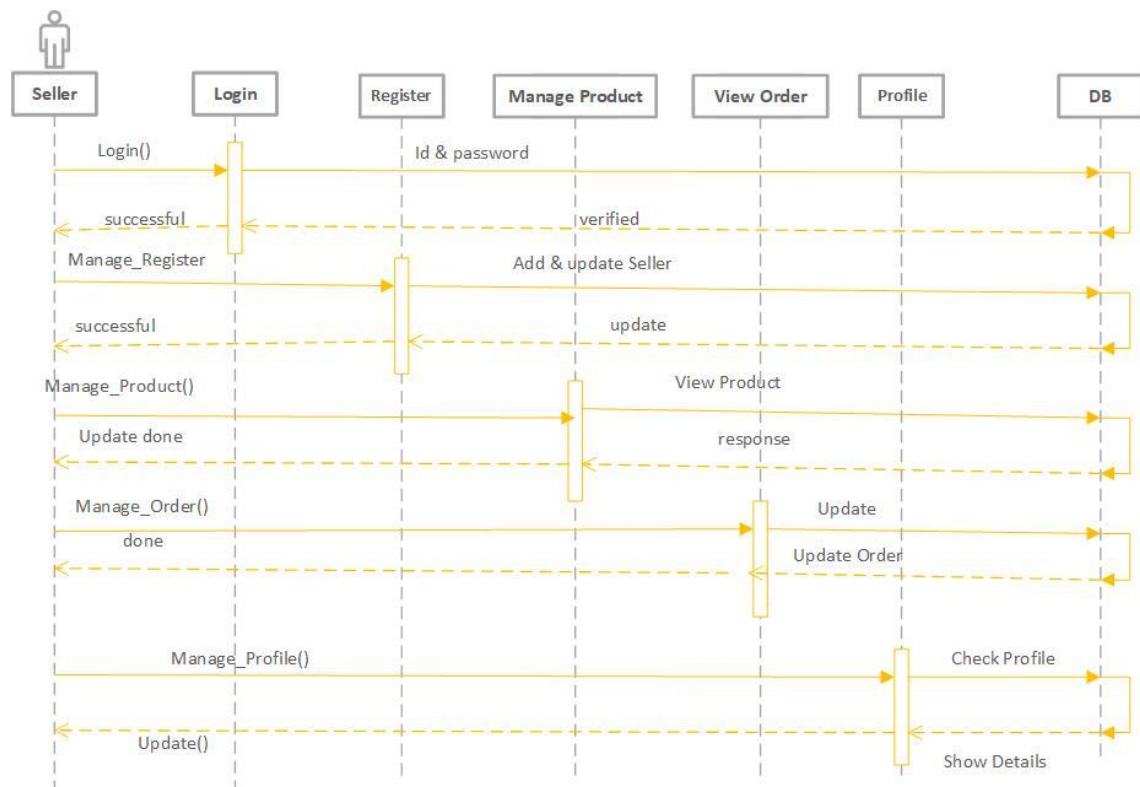


Figure – 2.9 : Seller Sequence Diagram [Own Development]

Buyer Sequence Diagram

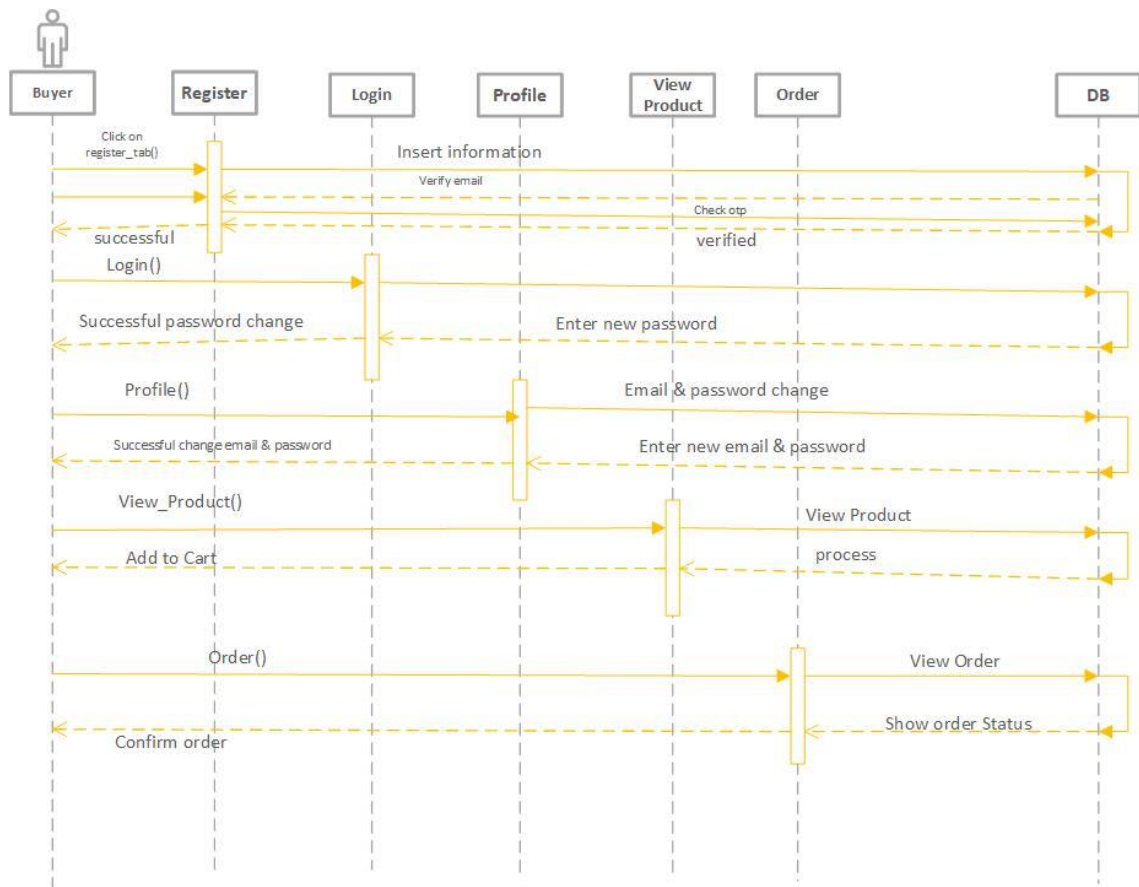


Figure – 2.10 : Buyer Sequence Diagram [Own Development]

Chapter – 3 Project Development Technologies

When referring to the many tools and strategies that are utilised in the procedure of communication between different kinds of devices over the internet, the term "web technology" is the term that is being referred to. Site pages can be accessed to with the utilization of an internet browser. Internet browsers are PC programs that permit clients to see different kinds of content, including text, information, photographs, movement, and video, on the Internet. The product interfaces presented by internet browsers make it conceivable to get to the hyperlinked materials that are situated on the Internet.

Coming up next are the classifications that can be utilized to group web innovation:

- **World Wide Web (WWW)**

The Internet is upheld by various advancements, including internet browsers, the Hypertext Markup Language (HTML), and the Hypertext Transfer Protocol (HTTP).

- **Web Browser**

The product tool known as an internet browser is utilized to explore www (Internet). It goes about as a resource between the client and the server, permitting the client to send solicitations to the server for web content and administrations.

- **Web Server**

A web server is a sort of PC program that processes the organization demands made by clients and gives those clients the records important to develop site pages. The Hypertext Transfer Protocol is being used to do this exchange.

- **Web Pages**

Any individual who is connected to the web and has an internet browser can peruse a page, which is a kind of computerized report that is associated with the Internet.

- **Web Development**

The method involved with creating sites including their development, creation, and continuous upkeep is known as web advancement. It includes features like as web composition and distributing, web programming and the board, as well as data set organization. It alludes to the method involved with fostering a program that can be gotten to by means of the web, like pages.

3.1 Front-End Technologies

HTML5

The expression "Hyper Text Markup Language," or HTML, alludes to the programming language that is the most prominently used on the Internet for the advancement of pages. Late in 1991, Tim Berners-Lee was the person who thought of the thought for HTML, albeit the principal standard HTML detail wasn't delivered until 1995 under the name "HTML 2.0." In the last 50% of the year 1999, the significant rendition of HTML known as 4.01 was made accessible to general society. Despite the fact that the HTML 4.01 variant is the one that is most generally utilized, the HTML-5 rendition, which is a development of the HTML 4.01 adaptation and was distributed in 2012, is at present the one that is in broad utilization.

The most major part of site page development is known as Hyper Text Markup Language (HTML), which represents Hyper Message Markup Language. HTML is a markup language, and that implies that it is utilized to "markup" the substance held inside a report, for this situation a site page, with the underlying and semantic data that educates a program how to show a page. Since HTML is a markup language, this implies that it is utilized to "markup" the substance held inside a page. A fundamental web page is comprised of three different varieties of code. HTML is in charge of the structural elements, CSS is responsible for the presentation of those elements, and JavaScript permits dynamic interaction between those elements.

The key advantages of learning HTML:

- If you have a solid understanding of HTML, you will be able to construct a website from scratch or modify an existing website template.
- Learn HTML and CSS Designing If you want to start a career as a professional web designer, knowing how to build websites with HTML and CSS is a requirement.
- It will be easier for you to comprehend other related technologies like JAVASCRIPT and PHP once you have a fundamental understanding of HTML. Therefore, you should learn more languages.

CSS3

The shortening CSS alludes to the Cascading Style Sheets. The introduction of site pages, including their design and organizing, can be depicted by utilizing a language called CSS, which means "standard template."

The Flowing Templates (CSS) standard diagrams how HTML components ought to look when delivered on screen, on paper, or in some other medium. CSS is a period and work saving innovation. It can handle the design of more than one site page simultaneously. There are three distinct strategies that CSS can be added to HTML parts:

Inline CSS

Inline CSS is a sort of CSS that is utilized to apply a particular style to a solitary HTML component. Inline CSS makes benefit of the style trait that is available on a HTML component.

This example sets the text color of the <h1> element to red:

```
<h1 style="color:red;">This is a Red Heading</h1>
```

Internal CSS

A solitary HTML record can have its own one of a kind look by characterizing its own inside CSS document. Inside the head a piece of a HTML record, within a style component, an interior CSS is characterized.

External CSS

A text record with the extension.css means an outer template, which is an independent report. Inside this text record, you will characterize all of the Style rules, and from that point onward, you will actually want to remember this document for any HTML report by using the link> component.

It is workable for the body of a few HTML reports to utilize outside templates.

Coming up next is the standard punctuation for integrating an outside CSS record:

```
<head>
<link rel="stylesheet" type="text/css" href="..." />
</head>
```

In this example, the connection between the connecting record and the ongoing report is characterized by the rel="stylesheet" quality. type="text/css" gives a substance type detail to the template language. href="filename.css" gives a substance type determination to the template document having Style rules.

Bootstrap

One of the problems with simple HTML design is that a website might look very different depending on the browser that's being used or the device that's being used (e.g. mobile, tablet and laptop). As a result, it is possible that we will need to alter the code depending on the browser or the device. Utilizing Bootstrap as a solution to the issue can quickly and effectively fix it.

Web design can be accomplished with Bootstrap, a framework that makes use of HTML, CSS, and JavaScript. It is viable with all of the significant internet browsers, including Chrome, Firefox, Drama, and others. Moreover, Bootstrap accompanies various predefined classes that might be utilized to make direct designs for things like dropdown buttons, route bars, and cautions, in addition to other things. Eventually, it has a responsive nature, and that implies that the format adjusts naturally to the gadget being utilized, like a cell phone or a PC.

Features

➤ **Portable first methodology:**

The Bootstrap 3 system consolidates portable first styles all through the aggregate of the library as opposed to keeping these styles in individual documents.

➤ **Program Backing:**

It is viable with the most significant programs in general.

Simple to begin:

Any individual who has a fundamental comprehension of HTML and CSS can rapidly make ready with Bootstrap. Furthermore, the authority Bootstrap site has an extensive documentation.

➤ **Responsive plan:**

The versatile CSS that Bootstrap utilizes adjusts to PCs, tablets, and cell phones. Offers a strategy that is tidier and more reliable as far as appearance while planning a point of interaction for designers. It accompanies tastefully satisfying and basically valuable implicit parts that are easy to customize. What's more, it offers arrangement through the web.

JavaScript

One of the most well-known scripting dialects utilized on the web is called Java Script. The expression "scripting" alludes to an inconspicuous sneak (piece). It is never reliant upon the dialects of different nations.

JavaScript is most often utilized as a prearranging language for use on the client side. This demonstrates that code for JavaScript is composed into a page that utilizes HTML. The content is conveyed to the program at whatever point a client demands a HTML page that contains JavaScript, and it depends on the program to figure out how activity to manage the content whenever it has been conveyed.

Utilizing HTML, we are simply ready to build a site page; you can't run any rationale on an internet browser, for example, adding two whole numbers, really looking at any condition, utilizing circling articulations (for, while), or making dynamic explanations (if-else). Since HTML doesn't uphold any of these abilities, the main choice for doing any of these undertakings on the client side is to utilize JavaScript.

Features of JavaScript

- JavaScript is an innovation that sudden spikes in demand for the client's PC; its essential capability is to give client-side approval, however it likewise has a considerable number of different capabilities, some of which are definite beneath.
- The programming language Java script is an item situated language.
- Since JavaScript doesn't empower legacy, this language is alluded to be an article situated programming language.
- Initially alluded to as live content, JavaScript was at first evolved by the firm known as Netscape. After some time, Microsoft worked on live content and added specific usefulness to it, so, all in all it was given the name "Jscript." Essentially said, Jscript is simply one more name for Java script. In Java Content, it isn't feasible as far as we're concerned to develop our own classes.
- The reason for Java script is to give intuitiveness to site pages written in HTML. Much of the time, it is integrated straight into HTML pages.
- The essential applications for Java script incorporate the upgrade of web architectures, the approval of structure information on the client side, the recognizable proof of guests' programs, the creation and usage of treats, and numerous different applications.

- In view of its very clear linguistic structure, Java script is otherwise called a lightweight programming language. This is one justification for why Java script is so famous. Java script contains executable code.
- Since script code can be run without first going through the gathering system, Java script is likewise alluded to as a deciphered language.
- It deals with dates, times, onSubmit, onLoad, onClick, and onMouseOver occasions, in addition to other things.
- The sentence structure of most JavaScript control explanations is indistinguishable from the punctuation of control proclamations in the C programming language.

There are two unique strategies to integrate JavaScript into your HTML document:

➤ **Internal JS:**

We can integrate JavaScript into our HTML record in a clear way by setting the code within the `<script>` tag. As indicated by the particulars, the `<script>` tag can be incorporated either inside the `<head>` tag or the `<body>` tag.

➤ **External JS:**

It is possible for us to compose JavaScript code in a separate file with the extension.js, and then connect this file inside the `<head>` tag of the HTML file to which we wish to add this code. Alternatively, we could write JavaScript code directly in the HTML file.

Ajax (Asynchronous JavaScript and XML)

Using HTML, CSS, XML and JavaScript, the new approach known as AJAX makes it possible to develop web apps that are superior, quicker, and more interactive than ever before. XHTML is used for the content, CSS is used for the presentation, and Document Object Model and JavaScript are used for dynamic content display. Ajax utilizes these advancements. Coordinated demands are utilized both to send and get data to and from the server when customary web applications communicate information. It demonstrates that the client should finish up a structure, hit the submit button, and afterward be taken to another page that contains new information pulled from the server. At the point when an AJAX client presses the submit button, JavaScript will send a solicitation to the server, assess the outcomes, and afterward update the screen that the client is presently seeing.

The client would have no clue about that anything was even shipped off the server since they would be totally ignorant about it.

Receiving data from a server is typically accomplished through the use of XML as the format. AJAX is a technique that may be used in web browsers and is not dependent on web server software. A user may continue to make use of the application even as the client programme makes inquiries to the server in the background to obtain information. When using AJAX, clicking is not necessary; rather, movement of the mouse is sufficient to trigger an event. It is a technology that is powered by data. AJAX cannot function without the accompanying server. In order to produce interactive webpages, it is typically employed in conjunction with other technologies. JavaScript, the Document Object Model (DOM), Cascading Style Sheets, and XMLHttpRequest are the technologies that provide support for AJAX.

JQuery

jQuery is a JavaScript Library that was created in 2006 by John Leave. It is known for its speed and quickness, and its witticism is "Compose less, accomplish more." The rapid structure of sites is worked with by jQuery's improvement of HTML page crossing, occasion taking care of, movement, and Ajax connections. jQuery is a JavaScript tool compartment that was created determined to make various errands more straightforward by requiring less code. Coming up next is a stock of the fundamental center highlights that jQuery might uphold:

- **DOM manipulation:**

By using a cross-program open source determination motor known as Sizzle, the jQuery library simplified it to pick DOM components, arrange them, and alter the substance of those components.

- **AJAX Support**

jQuery is of extraordinary help to you in fostering an AJAX-based site that is both responsive and loaded with highlights.

- **Event handling:**

Without jumbling the HTML code with occasion overseers, jQuery gives a smooth strategy to catching a large number of occasions, for example, a client tapping on a connection.

- **Lightweight**

The jQuery library is genuinely lightweight, tipping the scales at only 19 kilobytes (Minified and gzipped).

➤ **Animations**

It is allowed to use any of the various implicit liveliness impacts that are incorporated with jQuery on your sites.

➤ **Cross Browser Support**

The jQuery offers support for numerous programs and is viable with the latest variants, everything being equal.

➤ **Latest Technology:**

jQuery is viable with the CSS3 selectors and the crucial sentence structure of XPath.

3.2 Programming Language

PHP

PHP, which means "Hypertext Preprocessor," is a server-side prearranging language that empowers web to make dynamic substance that speaks with information bases.

Rasmus Lerdorf is the individual who at first created PHP in the year 1994. To lay it out plainly, online programming advancement is PHP's essential capability.

- PHP is a scripting language that sudden spikes in demand for the server and is coordinated into HTML. It can likewise be utilized to foster full web based business sites, as well as oversee data sets, meeting checking, and dynamic substance.
- It is viable with different notable information bases, some of which being MySQL, Prophet, Informix, Sybase and Microsoft SQL Waiter.
- IMAP, POP3 and LDAP are only a couple of the numerous significant conventions that are upheld by PHP. Since PHP4 included help for Java as well as conveyed object structures (COM and CORBA), n-level writing computer programs was at last ready to turn into a reality.

Uses of PHP

- PHP can open, make, read, compose, and close records on a framework. This is one of the framework works that PHP can achieve.
- PHP can handle structures, and that implies that it can gather information from documents, store information to a record, communicate information over email, and return data to the client.
- PHP permits you to add, erase, and modify individual components inside your data set.

- You can access the variables associated with cookies and set cookies.
- You can prevent users from accessing certain sections of your website by utilising PHP in this capacity.
- It is able to encrypt information.

3.3 Backend

MySQL (DATABASE)

MySQL was first made available to the public all the way back in the year 1995. Since that time, it had a few different owners and was managed by a few different people till it was acquired by the Oracle Corporation in the year 2010. Even though Oracle is currently in control, MySQL is still open source software, which means that anyone is free to use it and make modifications to it.

MySQL is the business standard for open-source information base administration frameworks. This administration answer for data sets upholds numerous clients and various strings all the while. On the web, MySQL is exceptionally boundless. It is a part of the broadly utilized Light stage and one of its subsystems. Linux, MySQL, and the PHP and Apache web servers. The MySQL data set is possible on most of critical operating system stages. It can work on BSD Unix, Linux, Windows, or Macintosh PCs. MySQL is utilized by sites like Wikipedia and Facebook. These sites interaction a huge number of searches every single day. MySQL is accessible in two unmistakable flavors, the MySQL server framework and the MySQL implanted framework.

The MySQL information base is versatile to an extensive variety of purpose cases, like those including strategic applications, dynamic sites, and the joining of an implanted data set inside programming, equipment, or machines.

Along with PHP scripts, it is a famous technique for creating vigorous and dynamic server-side or electronic undertaking frameworks.

Features of MySQL

- MySQL's straightforwardness gives a false representation of its solidarity, speed, security, and versatility.
- MySQL can be utilized with numerous different OSes, including UNIX/Linux, Windows, Macintosh operating system X, and others.
- Data set administration framework MySQL is viable with the business standard SQL.
- When it comes to databases, MySQL is the best option, regardless of how big or tiny your application is.

Chapter – 4 : Project Development

During the Execution phase of a project's life cycle, tasks are carried out and the project plan is implemented.

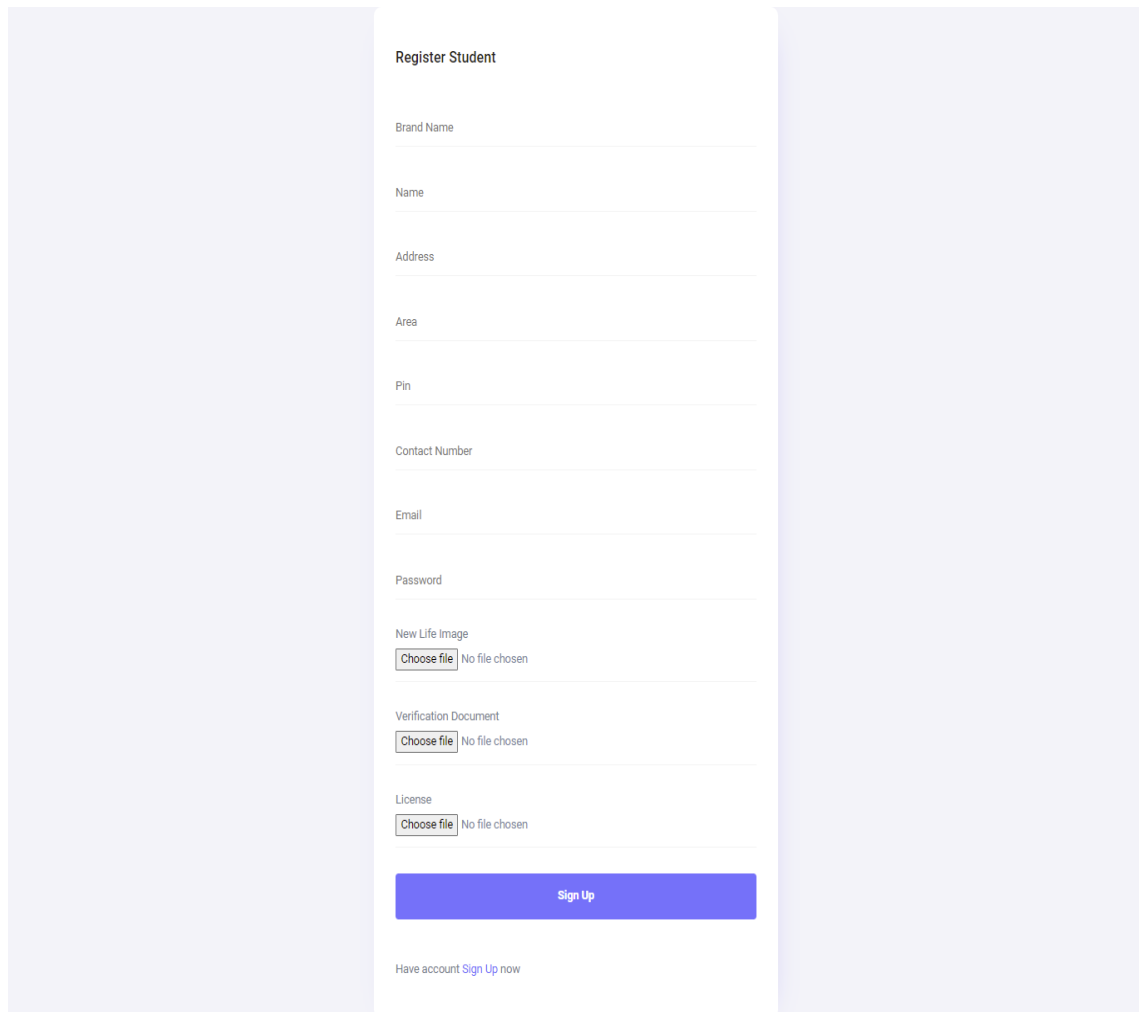
Coding is the procedure of converting a system's design into a language that a computer can read and interpret. The coding step of software development is when the design specification is converted into executable code by the software itself. Making it easy to check if the code fits with its specification requires not only writing the source code but also the internal documentation.

Independent individuals called coders or programmers perform the coding process apart from the designer. The goal is not to reduce time and resources spent on the coding phase, but rather to reduce the cost of a subsequent step. The time and money needed for testing and upkeep can be reduced significantly with more efficient code.

The project's implementation phase typically takes the most time and effort. Unless you keep your team on course, it's easy for them to lose momentum, fail to effectively communicate, or deviate from established protocols.

4.1 Forms

Seller Registration

A screenshot of a web form titled "Register Student". The form is centered on a light gray background. It contains several input fields for text: "Brand Name", "Name", "Address", "Area", "Pin", "Contact Number", "Email", and "Password". Below these are three file upload sections, each with a "Choose file" button and the text "No file chosen": "New Life Image", "Verification Document", and "License". At the bottom of the form is a large blue button labeled "Sign Up". Below the button is a link that says "Have account Sign Up now".

Register Student

Brand Name

Name

Address

Area

Pin

Contact Number

Email

Password

New Life Image

Choose file No file chosen

Verification Document

Choose file No file chosen

License

Choose file No file chosen

Sign Up

Have account [Sign Up now](#)

Figure 4.1: Seller Registration [Own Development]

The above picture found in figure-4.1 exhibits enrollment type of the merchant. In my study, seller is a student. So we have taken their details.

The subtleties that should be placed to enroll are brand name, name, address , contact number, email, logo, and reports

Seller Login

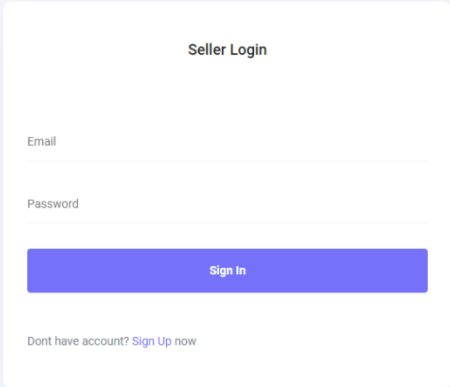
A screenshot of a 'Seller Login' form. The form is white with rounded corners and is centered on a light purple background. It features a title 'Seller Login' at the top. Below the title are two input fields: 'Email' and 'Password'. A blue 'Sign In' button is positioned below the password field. At the bottom of the form, there is a link that says 'Dont have account? Sign Up now'.

Figure 4.2: Seller Login [Own Development]

The above picture found in figure-4.2 exhibits merchant login structure and sign in button. Here in the event that the vender isn't now enrolled, merchant can join by tapping on join currently connect showed beneath of sign in button.

Seller Add Product

Welcome Mr.Sachin

Dashboard

Manage Item

Add Item

View Item

Manage Orders

Add Product

Item Name *
Your Item..
This field is required.

Item Description *
Your Item Description..
This field is required.

Item Price *
Your Item Price..
This field is required.

Item Image-1*
Choose file No file chosen
This field is required.

Item Remarks *
Your Item Remarks..
This field is required.


Submit


New Life for Old Products 2023

Figure 4.3: Seller Add Product [Own Development]


Figure-4.3 presentations add item structure for the dealer. Dealer will enter item subtleties with the picture. The subtleties to be placed are thing name, portrayal, cost , picture and comments if any.

Buyer Registration

[Create Account](#)
[Login](#)


 Order online or call us : (+0123) 234 567

NEW LIFE

Search for a Store... 

[Home](#)
[Product](#)
[About Us](#)

REGISTER HERE

PROFILE INFORMATION

First Name...

Last Name...

Mobile

Address...

Area...

Pin Code

LOGIN INFORMATION




Email Address

Password

Register

Home

CONTACT

 Warsaw, Poland.
  info@NewlifeForOldProducts.com
  +1234 567 567

INFORMATION

[About Us](#)
[Home](#)

AREA

[Bandra](#)
[Waghodia](#)
[Alkapuri](#)
[Gotri](#)

PROFILE

[My Cart](#)
[Login](#)
[Create Account](#)


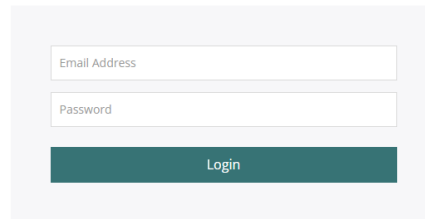
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Figure 4.4: Buyer Registration [Own Development]

Figure 4.4 showcases purchaser enrollment structure. Purchaser needs a record to buy item so this is the initial step to make a record. Fundamental subtleties of the purchaser are expected to enroll like first name, last name, portable number, address, region, pincode, email and secret password.

Buyer Login

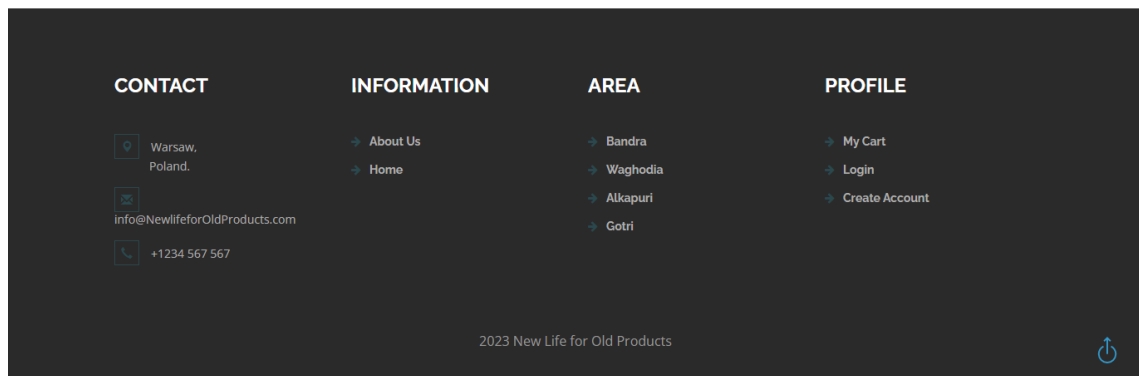
LOGIN FORM



A login form with two input fields: 'Email Address' and 'Password'. Below the fields is a dark green button labeled 'Login'.

FOR NEW PEOPLE

[Register Here](#) (Or) [go back to Home](#) >



A dark grey footer section containing four columns of links. The first column is 'CONTACT' with location, email, and phone. The second is 'INFORMATION' with 'About Us' and 'Home'. The third is 'AREA' with 'Bandra', 'Waghodia', 'Alkapuri', and 'Gotri'. The fourth is 'PROFILE' with 'My Cart', 'Login', and 'Create Account'. At the bottom center is the text '2023 New Life for Old Products' and a share icon on the right.

CONTACT	INFORMATION	AREA	PROFILE
Warsaw, Poland.	→ About Us	→ Bandra	→ My Cart
info@NewLifeForOldProducts.com	→ Home	→ Waghodia	→ Login
+1234 567 567		→ Alkapuri	→ Create Account
		→ Gotri	

2023 New Life for Old Products

Figure 4.5: Buyer Login [Own Development]

As found in the figure-4.5, it is the login structure for the purchaser to buy item.

4.2 Screen Layouts

Seller Dashboard

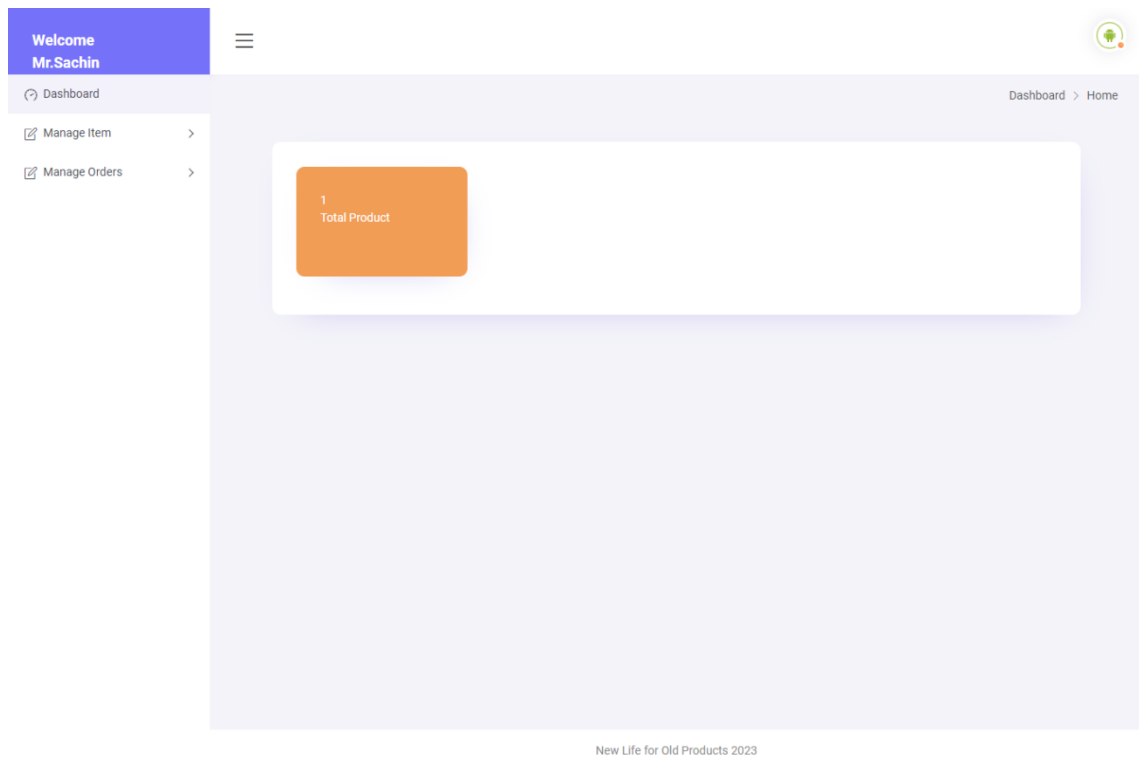
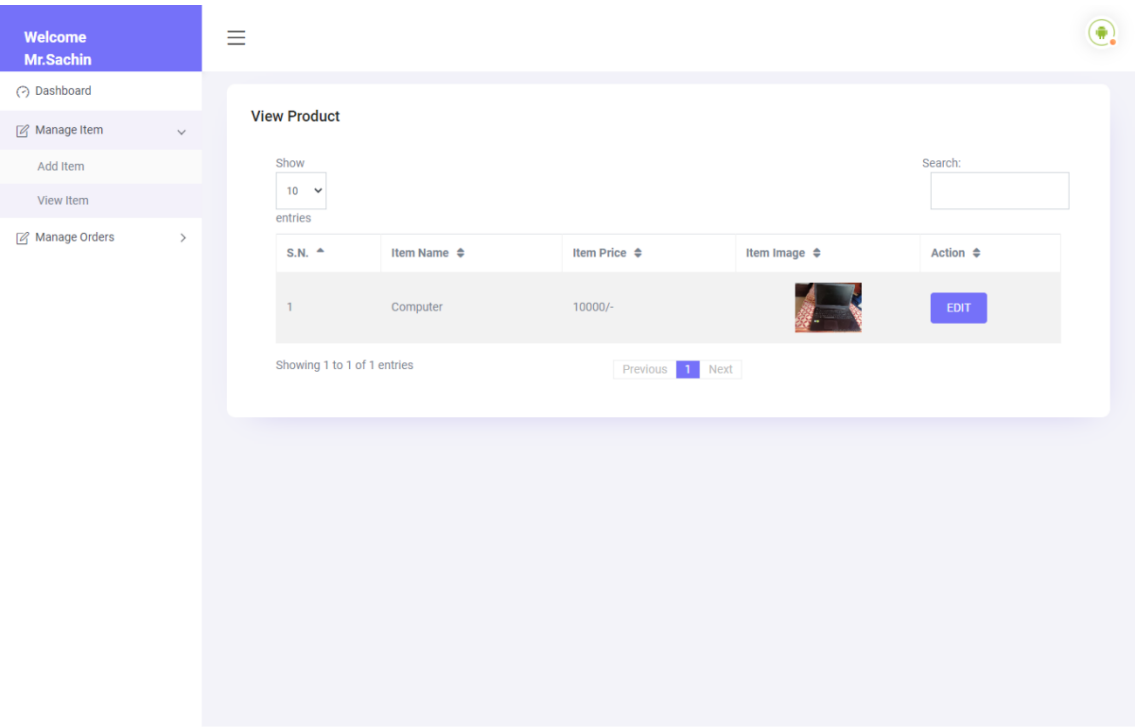


Figure 4.6: Seller Dashboard [Own Development]

Figure 4.6 addresses Vender dashboard. It will have menus like dashboard, oversee things and oversee orders. Complete item count is shown on the dashboard.

Seller View Products



New Life for Old Products 2023

Figure 4.7: Seller View Products [Own Development]

Figure 4.7 addresses the rundown items added by dealer. As found in figure-4.7 alter choice is given to change any item subtleties. Rundown will have thing name, cost , picture to effectively distinguish the thing.

Seller View Order

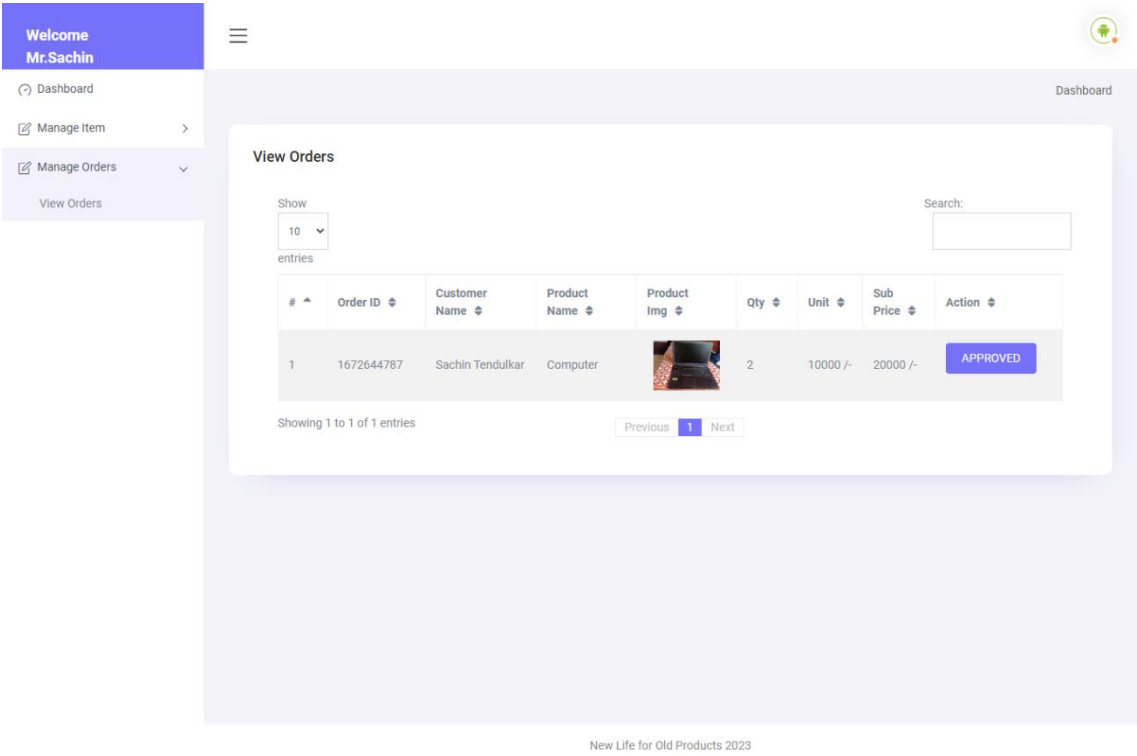


Figure 4.8: Seller View Order [Own Development]

As found in figure 4.8, orders given by purchaser for the merchant's item will be recorded. Dealer can endorse or dismiss the request demand.

Buyer Home Page

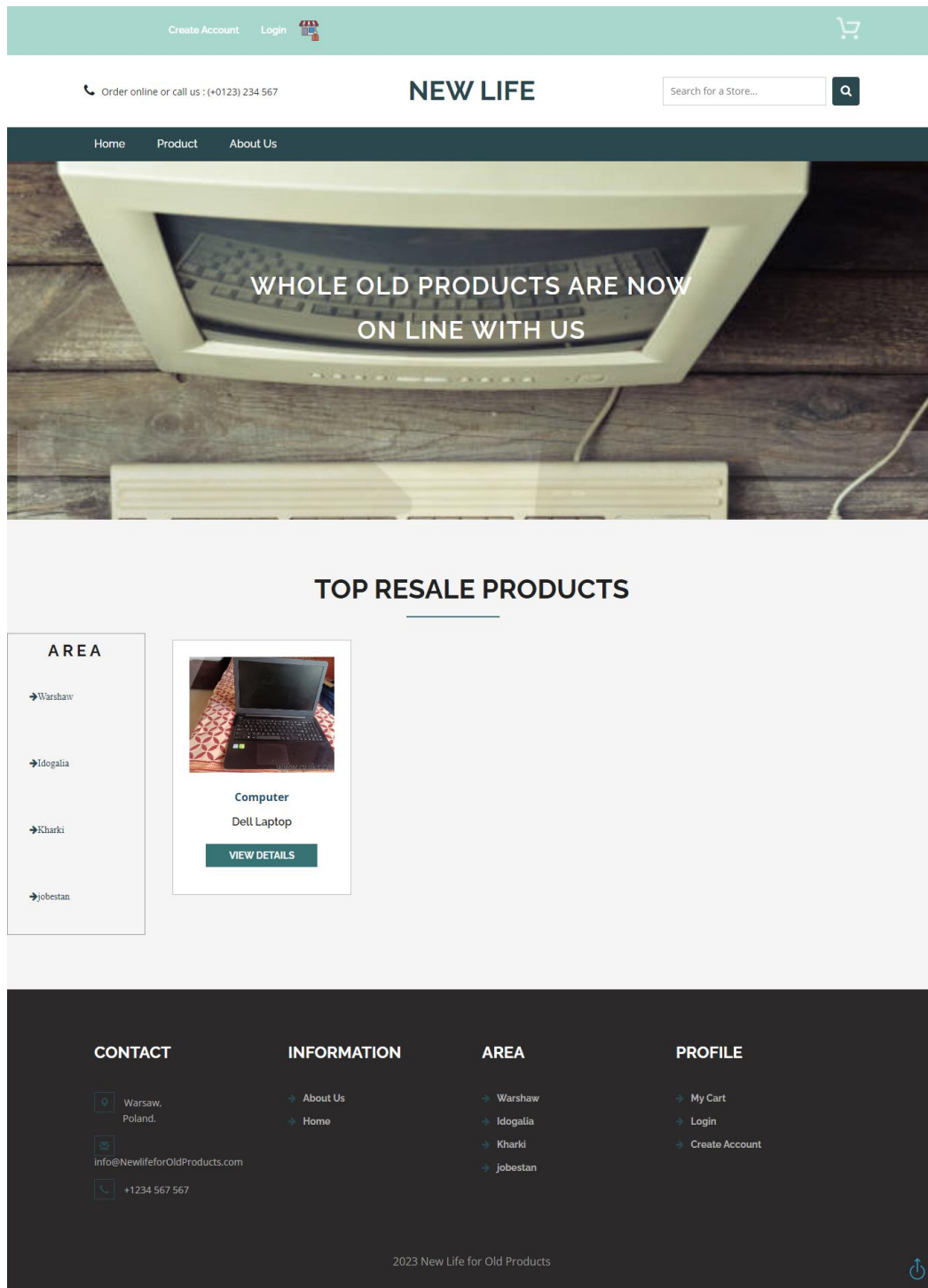


Figure 4.9: Buyer Home Page [Own Development]

Figure 4.9 shows the items list accessible for procurement. Here purchaser can look through item region wise moreover. As shown, channels in view of region is additionally accomplished in this task.

Buyer Cart

Welcome Sachin
Logout
My Orders

Order online or call us : (+0123) 234 567
NEW LIFE
Search for a Store...

Home
Product
About Us

Home / CheckOut

YOUR SHOPPING BAG CONTAINS: 1 PRODUCTS

SL No.	Product	Quantity	Product Name	Unit Price	Sub Price	Remove
1		<div>- 1 +</div>	Computer	10000 /-	10000 /-	

Total Amount: 10000 /-

Continue Shopping
Confirm Order

CONTACT

Warsaw, Poland.
 info@NewLifeForOldProducts.com
 +1234 567 567

INFORMATION

- About Us
- Home

AREA

- Warshaw
- Idogalia
- Kharki
- jobestan

PROFILE


- My Cart
- Login
- Create Account



2023 New Life for Old Products

Figure 4.10: Cart [Own Development]


Figure 4.10 shows truck whenever item is chosen by the purchaser. On clicking affirm request, solicitation will be shipped off merchant for additional handling.

Buyer Order


Welcome Sachin
Logout
My Orders


 Order online or call us : (+0123) 234 567
NEW LIFE


Home
Product
About Us

 Home / CheckOut

YOUR ORDERS: 1 PRODUCTS

SL No.	Order ID	Product Name	Product Image	Quantity	Unit Price	Sub Price	Order Status
1	1672644787	Computer		2	10000 /-	20000 /-	Approved


BACK TO HOME


CONTACT


INFORMATION

AREA

PROFILE

 Warsaw,
Poland.

 info@NewLifeForOldProducts.com

 +1234 567 567

→ About Us
→ Home

→ Warshaw
→ Idogalia
→ Kharki
→ jobestan

→ My Cart
→ Login
→ Create Account


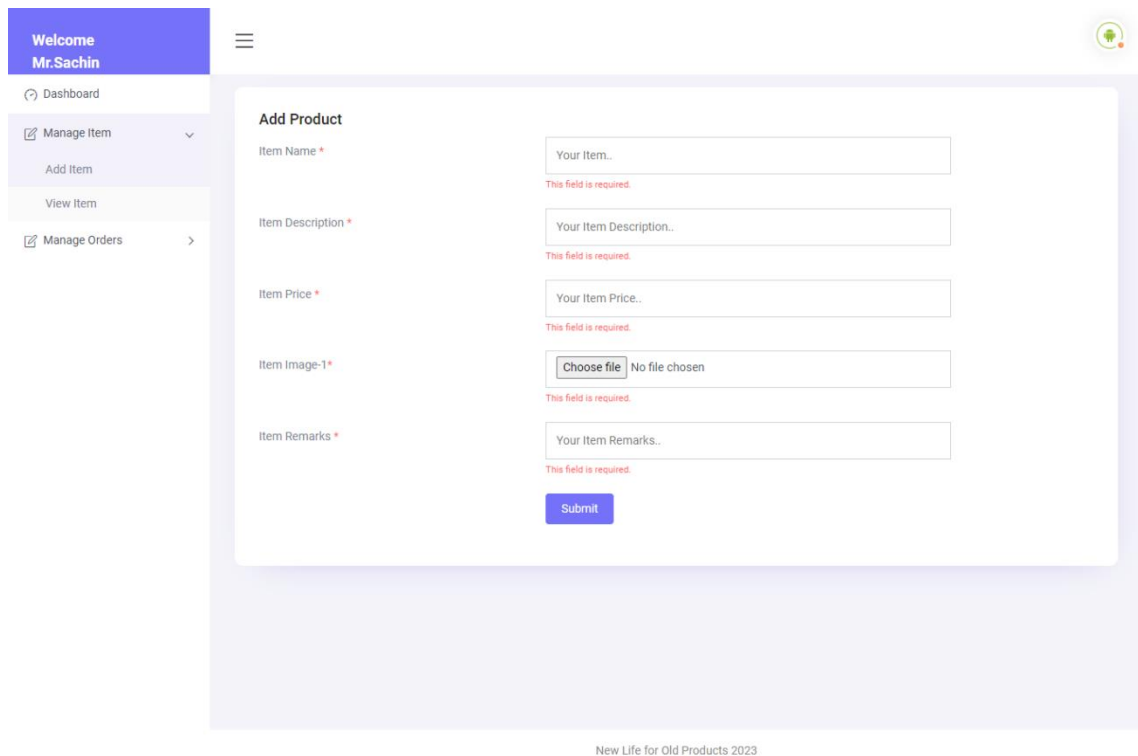
2023 New Life for Old Products


Figure 4.11: Buyer Order [Own Development]

Figure 4.11 shows orders got by purchaser for their items. In light of the merchant subtleties, purchaser can support or reject orders.

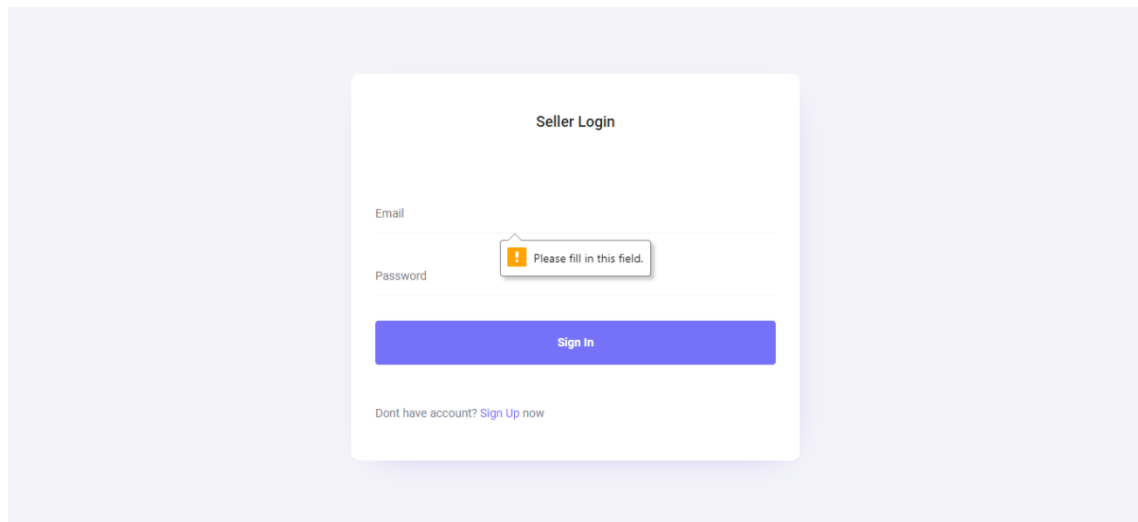
4.3 Validation Screenshots

Check for Null field (Seller Add Product)



The screenshot displays the 'Add Product' form in a web application. The form is titled 'Add Product' and contains several input fields, each with a red asterisk indicating it is required. The fields are: 'Item Name', 'Item Description', 'Item Price', 'Item Image-1', and 'Item Remarks'. Each field has a placeholder text and a red error message below it stating 'This field is required.' The 'Item Image-1' field has a 'Choose file' button and 'No file chosen' text. A 'Submit' button is located at the bottom of the form. The left sidebar shows the user is 'Mr. Sachin' and has access to 'Dashboard', 'Manage Item', 'Add Item', 'View Item', and 'Manage Orders'. The footer text reads 'New Life for Old Products 2023'.

Figure 4.12: Seller Add Product [Own Development]

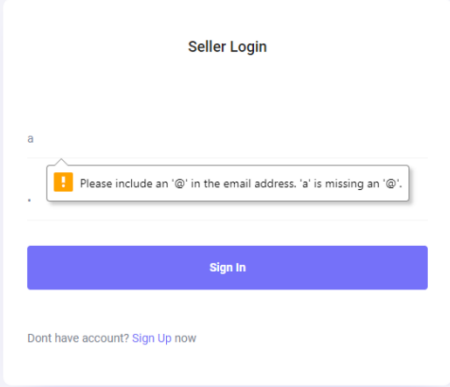


The screenshot displays the 'Seller Login' form. It has two input fields: 'Email' and 'Password'. A red error message box with an exclamation mark icon is shown over the 'Password' field, stating 'Please fill in this field.' Below the fields is a blue 'Sign In' button. At the bottom, there is a link that says 'Dont have account? Sign Up now'.

Figure 4.13: Seller Login Empty Field check[Own Development]

As displayed in figure-4.12 and figure-4.13, approvals for required field is kept on vender add item structure and dealer login structure.

Check for Email Validation



The image shows a 'Seller Login' form. At the top, it says 'Seller Login'. Below that is an email input field containing the text 'a'. A red error message box is displayed below the input field, stating: 'Please include an '@' in the email address. 'a' is missing an '@'. Below the error message is a blue 'Sign In' button. At the bottom of the form, there is a link that says 'Don't have account? Sign Up now'.

Figure 4.14: Seller Login Email Check[Own Development]

As displayed in figure-4.14, approval for the email address in vender login structure is continued to utilize standard articulation idea.

Conclusion

The study was conducted with the goals of designing and developing a management system for online purchasing and selling of previously owned items. Because of the rise in popularity of internet shopping and the fact that the majority of second-hand goods are organised. Both the buyer and the seller are required to negotiate an agreement with one another, which might lead to fraud. The management system for buying and selling used items online was established with the intention of preventing and resolving issues such as these. COD mode of payment is accepted through this system as there are less chances of the fraud in this case. After the product has been delivered to the buyer and the customer has validated its condition, the sale is considered complete.

Web Technologies such as HTML, CSS, Bootstrap, Ajax, JQuery, Javascript, PHP and MySQL were utilised in the development of a web application. Before being able to sell products on the platform developed, every user in the system must create an account in the system. Users will be able to shop for and sell second-hand goods online in a way that is both more secure and more easy thanks to a new management system for online second-hand shopping which I have given name as “New Life For Old Product”.

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