



Java Institute for Advanced Technology

UNIT NAME – Web Programming

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EXAM ID – H7DT 04/EX/02

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BRANCH – Bandarawela (Moose Batch)



Software Requirements Specification

For

< Diamond Store >

Version <1.0.0>

Prepared by:

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1. Introduction

1.1 Purpose

The purpose of this document is to outline the requirements for the Diamond Store web application. It details the functionalities, interfaces and graphs of the system to guide its development and deployment.

1.2 Scope

The Diamond Store web application provides a platform for users to buy and sell gemstones. It includes separate interfaces and functionalities for Users and administrators. Users can perform actions such as signing up, signing in, purchasing items, managing their cart and wish list, providing feedback, and maintaining their profiles. After Sign in to the system, Users also can sell products. Administrators have additional capabilities including managing products, managing users, and managing sales history details.

1.3 Definitions, Acronyms, and Abbreviations

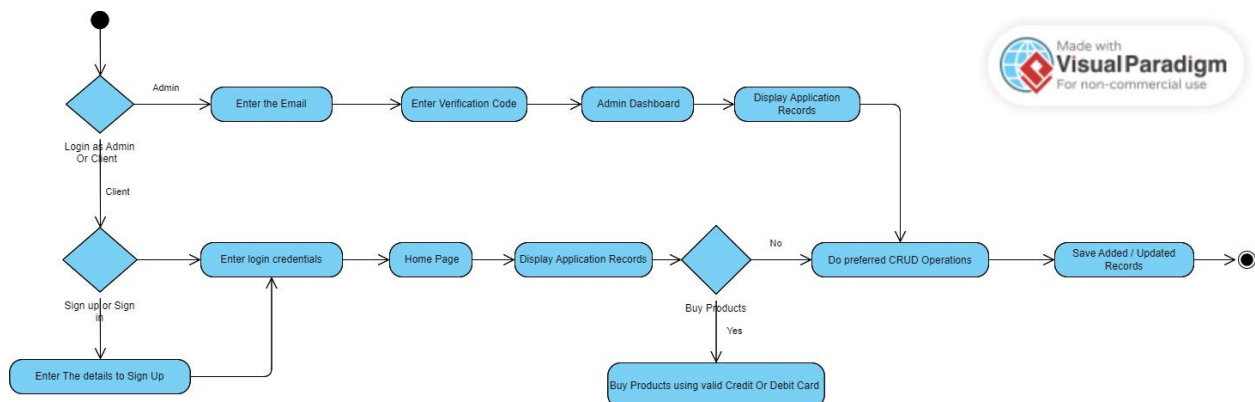
- **SRS:** Software Requirements Specification
- **UI:** User Interface

2. Overall Description

2.1 Product Perspective

This web application currently runs on localhost environment. It interacts with mySQL server to store and retrieve products, users, and transaction data. External systems integration includes the PayHere Sandbox environment for simulating payment processing.

Activity Diagram



2.2 Product Features

User Side Features:

- User Registration and Authentication
- Profile Management
- Product Browsing and Searching
- Adding Items to Cart and Wishlist
- Checkout ,Payment Processing and print Invoice
- See Purchasing History
- Feedback Submission
- Add / update / delete products from their store

Admin Side Features:

- Secure Login via Verification Code sent to Admin Email (simulated)
- Product Management (Add, Edit, Delete, Add new product categories)
- User Management (View, Edit, Delete, Block/Unblock users)
- Manage Sales History Details

2.3 User Classes and Characteristics

- **Users:** Regular users who browse and purchase various gemstones.
- **Administrators:** System managers with privileges to oversee and manage the application.

2.4 Operating Environment

The Diamond Store web application is currently hosted locally accessible via localhost. It is accessed through web browsers.

3. Specific Requirements

3.1 External Interface Requirements

User Interfaces

Client Interfaces

SignUp



Welcome To Diamond Store!

Create New account

First Name Last Name

Email

Password

Mobile Gender

[Sign Up](#) [Sign In to Current Account](#)

© 2022 diamond@store.lk || All Rights Reserved

SignIn



Welcome To Diamond Store!

Sign In

Email

Password

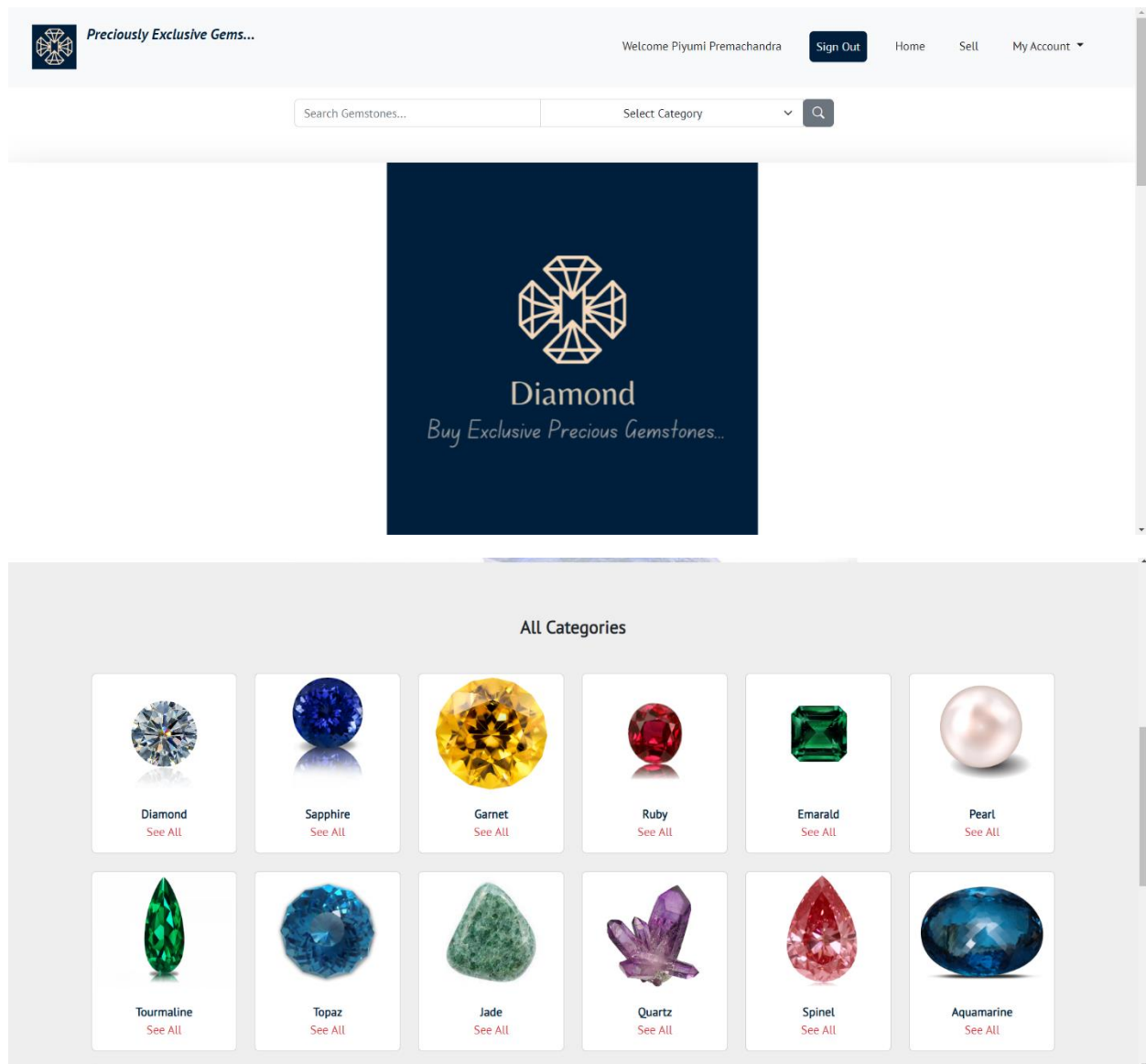
☐ Remember Me [Forgot Password](#)

[Sign In](#) [Join Now](#)

[Sign In as Admin?](#)

© 2022 diamond@store.lk || All Rights Reserved

Home



MyProfile page

Preciously Exclusive Gems...

Welcome Piyumi Premachandra
Sign Out
Home
Sell
My Account

Piyumi Premachandra
piyumipaya@gmail.com

Update Profile Image

My Profile

First Name

Piyumi

Last Name

Premachandra

Mobile

0787909995

Password

Email

piyumipaya@gmail.com

Registered Date

2022-11-07 00:30:55

Address Line 1

Pelmadulla

Address Line 2

Ratnapura

Province

Western

District

Colombo

City

Colombo

Postal Code

Gender

female

Update My Profile

WatchList

Preciously Exclusive Gems...

Welcome Piyumi Premachandra
Sign Out
Home
Sell
My Account

Home / Watchlist

My Watchlist

My Cart

Search in watchlist...
Search

#3

5cts natural unheated garnet
Rs: 20000.00
(1)"(w)"(d)
Found in : Sri Lanka Shape : oval
condition : cut & polish
8 Items in Stock

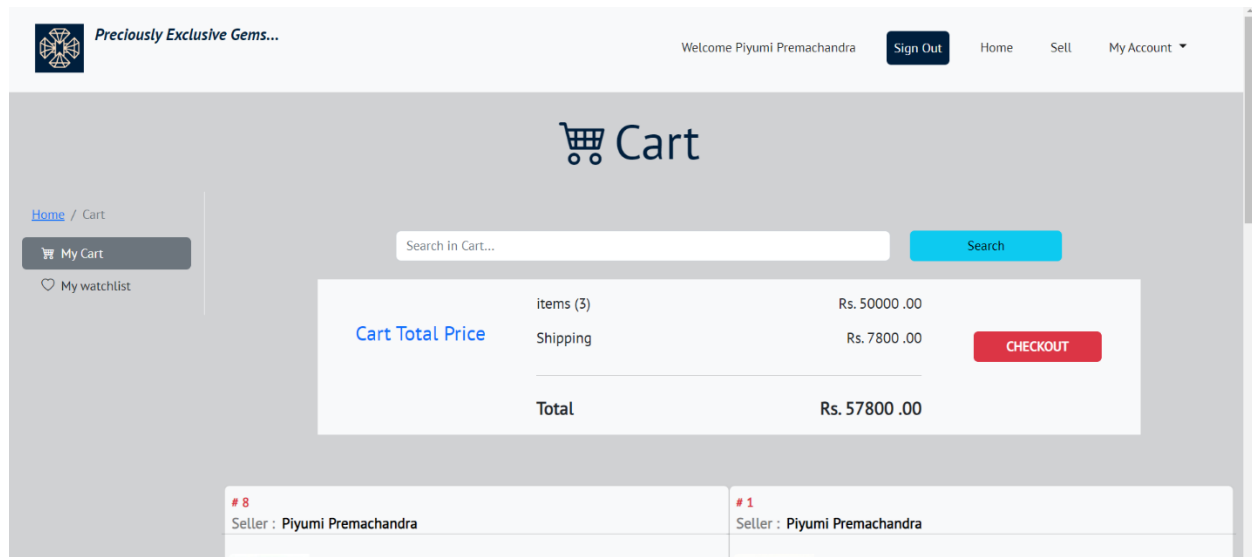
Buy
Cart
Remove

#35

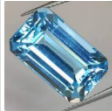

Clean Garnet Found in Sri Lanka
Rs: 30000.00

Buy

Cart




Purchasing History

ID	Order Details	Qty	Amount	Purchase Date & Time	Action
17	<div># 11</div> <div>35.5 natural sky blue topaz Seller : Piyumi Premachandra Price : Rs. 25000.00</div>	1	26500.00	2023-03-25 09:02:24	<div>Feedback</div>
18	<div># 12</div> <div>120cts natural tourmaline Seller : Piyumi Premachandra</div>	1	26000.00	2023-03-25 09:09:54	<div>Feedback</div>

Product page

Search in Detail

Search by keyword... 

Price

From To

Sort Price

Dimensions (mm)

length width

depth


Region

Select Region

Shape

Select Shape

#3





5cts natural unheated garnet


Dimensions(mm) : l * (w) * (d)
Found in : Sri Lanka | Shape : oval
Condition : cut & polish

Rs: 20000.00


8 Items in Stock

 Buy

 Cart

 Watchlist

#28





Golden Garnet


Dimensions(mm) : 21(l) * 13(w) * 10(d)
Found in : Sri Lanka | Shape : rough
Condition : rough

Rs: 40000.00


10 Items in Stock

 Buy

 Cart


 Watchlist

#35




Clean Garnet Found in Sri Lanka

Dimensions(mm) : 14(l) * 10(w) * 8(d)


 Buy

SingleProduct page



Preciously Exclusive Gems...

Welcome Piyumi Premachandra

 Sign Out

[Home](#) [Sell](#) [My Account](#)

[Home](#) / 40cts natural quartz



40cts natural quartz


Rs. 10000.00


In stock: 10 items available


Seller: Piyumi Premachandra

Return Policy: You can get 14 days to cancel your order with us. This two week period starts from the day after you receive your order (or from the day after you receive the last item of your order).
Email us: diamond.store@gmail.com

Quantity:  

 Buy

 Cart

 Watchlist

Item Details


Item Details

Dimensions (mm)	20mm * 15mm * 8mm
Weight (cts)	55
Colour	<div></div> blue
Tone	<div></div> blue (2)
Clarity	VS
Certificate	<div>Download Certificate</div>
Region	Sri Lanka
Shape	cushion

Item Description

Aquamarine (55cts)

Invoice



Preciously Exclusive Gems...

Welcome Piyumi Premachandra

Sign Out

Home

Sell

My Account

DIAMOND STORE

Niwithigala, Ratnapura, Sri Lanka

+94 112 785694

diamond.store@gmail.com

INVOICE TO :

Piyumi Premachandra

Pelmadulla, Ratnapura

piyumigayagd@gmail.com

INVOICE 23

Date & Time of invoice :
2024-06-30 09:17:17

#	Order ID & Product	Unit Price	Quantity	Price	
23	ORDER ID : 6680d5207dff9 Aquamarine (55cts)	Rs. 25000.00	1	SUB TOTAL	Rs. 25000.00
				Delivery Fee	Rs. 1200.00

#	Order ID & Product	Unit Price	Quantity	Price	
24	ORDER ID : 6681199adba06 Aquamarine (55cts)	Rs. 25000.00	1	SUB TOTAL	Rs. 25000.00
				Delivery Fee	Rs. 1200.00
				GRAND TOTAL	Rs. 26200.00

Thank You For Dealing With Us!

NOTICE :

Purchased Items can Return Before 14 Days of Delivery. Terms and Conditions Apply.

Invoice was created on a computer and it is valid without the signature and Seal.

Add Feedbacks




Add New feedback

User email

piyumigayagd@gmail.com

Feedback

Add Images







Upload Images

Feedbacks

piyumigayagd@gmail.com


abcd

hasini@gmail.com

2023-03-24 15:35:29

MyProducts Page



Preciously Exclusive Gems...

Welcome Piyumi Premachandra

Sign Out

Home

Sell

My Account

Add New

Sort Products

Search by keyword...

Price

Sort Price

Region


Select Region

Shape

Select Shape

By Condition

#5



Make Your Product Deactive

10cts natural jade


Rs: 20000 .00

1 Items in Stock

Update

Delete

#6



Make Your Product Deactive

5cts natural offwhite pearl


Rs: 20000 .00

4 Items in Stock

Update

Delete

#7



Make Your Product Deactive

5 cts natural pearl


Rs: 20000 .00

4 Items in Stock

Update

Delete

#8



Make Your Product Deactive

40cts natural quartz


Rs: 10000 .00

2 Items in Stock

Update

Delete

Add / Update Product



Preciously Exclusive Gems...


Welcome Piyumi Premachandra

Sign Out

Home

Sell

My Account

 Update Gemstone

Select Category

Jade

Select Condition

rough


Select Shape


oval


Found in

brazil

Add Images







Upload Images

Gem Laboratory Certificate

Upload Certificate



Preciously Exclusive Gems...

Welcome Piyumi Premachandra

Sign Out

Home

Sell

My Account

 Add Gemstone

Select Category

Select Category

Select Condition

Select Condition

Select Shape

Select Shape

Found in

Select Region

Add Images







Upload Images

Gem Laboratory Certificate

Upload Certificate

Admin Interfaces:

Login



Welcome To Diamond Auctions!


[Sign In](#)

Email

Send Verification Code

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Admin Dashboard



Welcome Admin
Piyumi Premachandra

Dashboard

Manage Users

Manage Products

Selling History

Sign Out


Your Total Active Time

02Years 5Months 2Days
10Hours | 17Minutes | 6Seconds

Dashboard

Most Successful Seller So Far

(Rs. 41000.00 Earned Recently)



Piyumi Premachandra
piyumigayagd@gmail.com
0787909995

Total Users
4

Daily Earnings
Rs. 67200 .00

Monthly Earnings
Rs. 67200 .00

Today Sellings
5 items

Monthly Sellings
5 items





Total Sellings
10 items

Manage Users

Manage Users

Search by product name

Search

Email	Password	Profile Picture	Full Name	Contact Number	Registered Date	Block / Unblock
hasini@gmail.com	hasini123		Hasini Balasooriya	0754678790	2023-01-26 10:11:34	Unblock
janu@gmail.com	abcdefg		Janaki Perera	0787909954	2022-11-07 10:21:19	Block
piyumi@gmail.com	123abc123		Piyumi Premachandra	0787909976	2022-11-07 09:59:48	Block
piyumigayagd@gmail.com	1234abcd		Piyumi Premachandra	0787909995	2022-11-07 00:30:55	Block





«

1

»

Search by product name

Search


Email	Password	Profile Picture	Full Name	Contact Number	Registered Date	Block / Unblock
hasini@gmail.com	hasini123		Hasini Balasooriya	0754678790	2023-01-26 10:11:34	Unblock
janu@gmail.com	abcdefg		Janaki Perera	0787909954	2022-11-07 10:21:19	Block
piyumi@gmail.com	123abc123		Piyumi Premachandra	0787909976	2022-11-07 09:59:48	Block
piyumigayagd@gmail.com	1234abcd		Piyumi Premachandra	0787909995	2022-11-07 00:30:55	Block

«

1

»

Piyumi Premachandra



User Name : Piyumi Premachandra
Email : Rs.piyumigayagd@gmail.com
Mobile : 0787909995









Close

Manage Products

Manage Products


Search by product name


Search


Product_ID	Image	Title	Price	Qty	Registered Date	Block / Unblock
1		6.5cts natural blue sapphire	10000	199	2022-11-11 21:27:55	<div>Block</div>
2		3.5cts natural unheated diamond	75000	1	2022-11-12 07:58:56	<div>Block</div>
3		5cts natural unheated garnet	20000	1	2022-11-12 08:18:48	<div>Block</div>
4		3.5cts natural emerald	90000	1	2022-11-12 08:21:03	<div>Block</div>
5		10cts natural jade	20000	1	2022-11-12 08:25:07	<div>Block</div>
6		5cts natural offwhite pearl	20000	4	2022-11-12 08:28:32	<div>Block</div>
7		5 cts natural pearl	20000	4	2022-11-12 08:30:59	<div>Block</div>
8		40cts natural quartz	10000	2	2022-11-12 08:33:17	<div>Block</div>


« 1 2 3 4 »


Manage Categories


Diamond





Ruby





Tourmaline





Quartz





Sapphire





Emerald





Topaz





Spinel





Garnet





Pearl





Jade




Aquamarine



Star Sapphire



Add New



Selling History

Selling History

Search by Invoice ID :

From Date :

To Date :

Find Selling

Invoice ID	Product	Buyer	Amount	Qty	Status
17	35.5 natural sky blue topaz	Piyumi Premachandra	Rs. 26500.00	1	Dispatch
18	120cts natural tourmaline	Piyumi Premachandra	Rs. 26000.00	1	Delivered
19	6.5cts natural blue sapphire	Piyumi Premachandra	Rs. 15000.00	1	Confirm Order

« 1 »

Hardware Interfaces

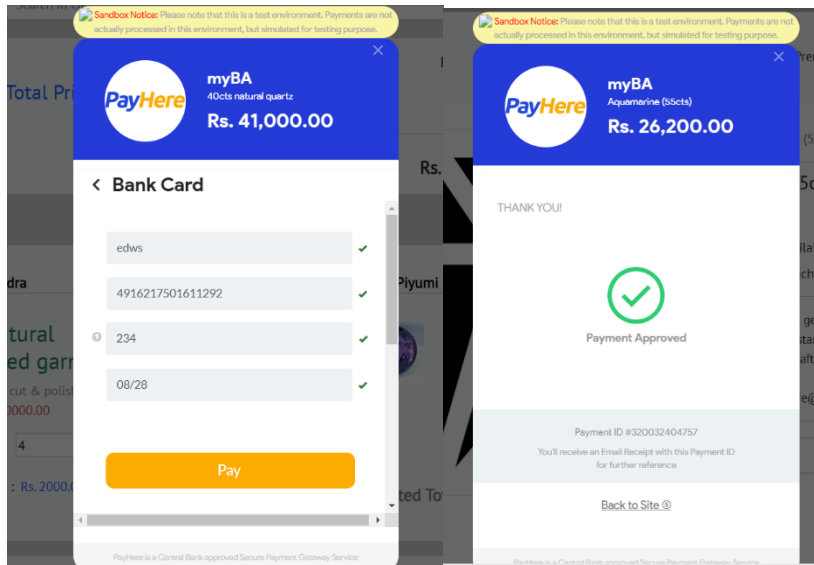
No specific hardware interfaces are required beyond these development environment setups.

Software Interfaces

- **Database:** MySQL database

The image is a screenshot of a web browser displaying the diamondAuctions.lk website. The website has a dark blue header with the text "diamondAuctions.lk" in white. Below the header, there is a large banner with a gold diamond logo and the text "Diamond Buy Exclusive Precious Gemstones...". On the right side of the banner, there is a large white text "Welcome To Diamond Auctions!". In the center of the page, there is a white login form with the title "Login" and a subtitle "Please login to continue". The form contains fields for "Email" (with the value "piyumigayagd@gmail.com") and "Password", and a "Send Verification Code" button. A modal window titled "Admin Verification" is open in the foreground, showing a "Close" button, a "Verify" button, and a text input field for "Enter Your Verification Code". The footer of the website contains the text "© 2022 diamondAuctions.lk || All Rights Reserved".

- **Payment Gateway:** Integration with PayHere Sandbox for simulating checkout and payment processes.



3.2 Functional Requirements

User Side Functional Requirements

Registration:

Users can create an account by providing details including name, username, email, and password, mobile and gender. After login to the system, they can update their profile details.

Login:

Users can log in using their email and password.

Product Purchase (via PayHere Sandbox):

Users can browse products, add items to the cart, and proceed to checkout for simulated payment via PayHere Sandbox.

Cart Management:

Users can add, remove, search or update items in their shopping cart.

Wishlist Management:

Users can add, search and remove items from their wishlist.

Feedback Submission:

Users can provide feedback on purchased products.

Profile Management:

Users can update their profile information such as name, address, and contact details.
sell products

Users can add, search and remove products they published.

Admin Side Functional Requirements

Secure Login (simulated):

Administrators can log in using a simulated verification code sent to their registered email address.

Product Management:

Administrators can add, edit, and delete product listings.

Admin can block / unblock products

Admin can add new categories or delete existing categories

User Management:

Administrators can view user profiles, edit user details, and deactivate user accounts.

Sales History:

Administrators can view sales transactions, including details of products sold.

Admin can change the sold product status

3.3 Non-Functional Requirements

Performance Requirements

- AJAX used for the development of this application. Therefore the web pages seem more responsive since they don't refresh every time a user modifies input and instead, little data packets are transferred with the server.

Security Requirements

- User passwords securely stored.
- Remember me option added in the User's sign in form therefore, the user's login details will be automatically filled in the next time they visit the page.
- Forgot password option added to client's sign in page
- Simulated admin verification codes for admin login

Usability Requirements

- The responsive UI development all over the web pages.
- Error messages through web browser alerts and different kinds of bootstrap models used to input user data.

Compatibility Requirements

- The application compatible with the latest versions of major web browsers including Chrome, Firefox and Microsoft Edge.

3.4 System Requirements

Hardware Requirements

- Development Machine: Minimum 4 CPU cores, 16 GB RAM
- Local Database Server: Minimum 4 CPU cores, 8 GB RAM
- Storage: Minimum 500 GB HDD/SSD

Software Requirements

- Operating System: Windows 11
- Web Server: Apache
- Database: MySQL Server
- Backend Framework: AJAX used for smooth running of the application
- Frontend Framework: Bootstrap for UI designs

Database Requirements

- Schema: Normalized schema design by using MySQL workbench for local database testing.

Use case View

