CHAPTER I

INTRODUCTION

1.1. Background

This project work entitled "HI5TREASURES._.PKR(AN ECOMMERCE WEBSITE FOR GIFT SHOP)" is for the partial fulfilment of the requirements for Bachelor of Information Management (BIM), 6th Semester. BIM program under Tribhuvan University requires a Summer Project at the end of 6th Semester for student's evaluation of learning. Summer Project is an individual project where each student is bound to develop a functional and user-friendly project to reflect their academic excellence.

Today people don't have much time on their hands so "HI5TREASURES._.PKR" website is made to save time of the people and the admin spent to communicate about the products. This website can utilize SEO strategy to grow its online presence. This website will help to track the number of users of the website. Pressing very few clicks, admin can easily manage inventories across several networks. It can be the magical wand that will help the owner to make her products visible to people all across the globe and take the organization greater heights.

1.2. Introduction of the Organization

HI5TREASURES._.PKR is an online-based gift shop operating through platforms such as Instagram and Facebook to sell its products and reach its customers. It started its operations from 20 September,2020, typically offering a variety of items suitable for various occasions like Birthdays, Anniversaries, Teachers Day, Father's Day, Mother's Day, Friendship Day, New Year, Valentine's Day, and any other special event. It often features unique, handcrafted, or customized gifts, catering to a wide range of preferences and budgets.

.

1.3. Current Situation of the Organization

HI5TREASURES._.PKR is mainly focused on the handmade gifting items in Nepal. It offers a variety of handmade products to the customers like handmade cards, scrapbook album, giftboxes, explosion box, bouquet and many more. It has uploaded 985 posts till date and its profile has reached up to 1,085 accounts within last 30 days in Instagram. It has brand loyal customers and often gets positive feedback from its customers. Despite its success in its business operation, it is going through some of the internal problems. Social medias can be an alternative to a website, but they cannot fulfil each and every need of the organization.

1.4. Issue/Problem of the Organization

In today's digital age, having a website has been a fundamental tool for every business to enhance communication, grow and create a brand identity. A website is accessible at any time, allowing customers to browse and make purchases whenever it's convenient for them. Some problems faced by HI5TREASURES._.PKR due to the lack of a website are:

- It is facing the limitations on customization and control over the presentation of products.
- It is unable to organize and display a large number of products efficiently.
- It has limited access to detailed customer data and analytics.
- Social media posts have limited impact on search engine visibility.

1.5. Objectives of the project

"HI5TREASURES._.PKR" website is aimed towards solving the existent problem of the organization. The main objective of developing this website is to optimize search engines (SEO) and attract organic traffic, increasing visibility and drawing in new customers searching for relevant products. Basically, the other objectives of developing this website are as follows:

• To have full control over the design, layout, and functionality, enabling the shop to create a unique brand identity and optimize the user experience.

- To provide advance search and filter options, detailed product categories, and better organization of resources, making it easier for customers to find products.
- To offer multiple customer support options, like live chat and email support, improving customer service efficiency and satisfaction.

1.6. Methodology

After going through brain storming session, the objectives were selected. Based on the objectives, set of questions were designed for interview, which is also an important part of software development.

1.6.1. Project framework

In the process of development of this software, waterfall approach is used. This development also includes incremental model as there is customer involvement to give feedback on the requirement left to be added. Basically, the whole process of software development is divided into separate phases and the outcome of one phase acts as the input for the next phase sequentially.

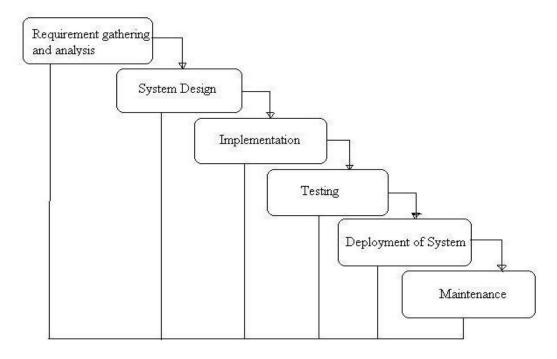


Figure 1.1. Waterfall Model

- Requirement Analysis: I, first gathered, understood, documented the specific requirements, needs and goals of the website.
- **Design:** Then, I planned the architecture, design, and user interface of the website.
- **Development**: After that I wrote the code for both the front-end and back-end components.
- **Testing:** After then, I combined all parts of the website and ensured the website functions correctly and is free of bugs, errors and performance issues.
- **Deployment:** Now the website will be released for the use by HI5TREASURES._.PKR and its customers.
- Maintenance: Ongoing support, updates, and bug fixes will be done to ensure the website remains functional and up-to-date. If issues come up in the client environment, patches will be released. The system will go through various versions to enhance its quality.

1.6.2. Data and Information

During the project there were two types of data gathered (Primary data and secondary data respectively) using different methodology. The gathered data and methodology are as below.

- **Primary Data Collection method:** Primary data were directly collected from the organization. They were collected from questionnaire and observation. These sources helped a lot to gain the knowledge about the organization.
- Secondary Data Collection Method: The secondary data were collected using internet and google which helped to know which type of software would be suitable for the organization.

1.6.3. Tools used

For the software development, different tools and languages are used.

1.6.3.1 Hardware requirements

- A multi-core processor for faster code compilation and execution.
- RAM: 8.00 GB for more for efficient multitasking.
- HDD for data storage.

1.6.3.2 Software tools used

Operating System: Windows 10

• IDE: Visual Studio Code

Database: MySQL

Database server implementation: XAMPP

• Web server: Apache

Back End: PHP

• Language: HTML/CSS /JavaScript/PHP

1.6.4. Techniques of Project report analysis

Before the development of the project, I did the feasibility study of the following resources.

1.6.4.1. Economic Feasibility

While I was doing the economic feasibility, I found that the implementation of this website is completely under the budget of the organization. The website to be designed will require resources that are freely accessible in the internet with no cost. Hence, the software is economically feasible.

1.6.4.2. Technical Feasibility

The software and hardware requirements for the development of this website are not complex and are easily available. The website is based on real-time database that provides real-time updates to information change in database. Hence, there will be no problem accessing the software as it can be easily accessed.

5

1.6.4.3 Schedule Feasibility

The website was scheduled to be completed within the given time frame. There is possibility of updating or maintaining this system from time to time without any hassle

1.6.4.4 Operational Feasibility

Since this website will be developed in order to solve the existent problem of HI5TREASURES._.PKR, it is ready and eager to implement it as soon as the website is ready. The company doesn't require separate personnel for its operation as it is very simple and easy to use. It completely caters to the organization's interests.

CHAPTER II

TASK AND ACTIVITIES PERFORMED

2.1. Analysis of task, activities, problems, issues

2.1.1. Analysis of task and activities

The organization was properly observed for the requirement collection. After the requirements were collected, the major task was to break down in the proper procedure and building the working framework. The various aspects of HI5TREASURES._.PKR and the problems that can be solved by the software build were analysed.

2.1.2. Analysis of problems and issues

In the process of analysing the task and activities, it was found that HI5TREASURES._.PKR has been able to do the optimum utilization of the technical resources by the use of e-payment, social media and logistics. Despite its utilization, it still is not able to display products as it wants and is not able to reach its potential customers due to lack of search bar option in its social medias account. Moreover, it is not able to track its customer information, orders and payments.

2.2. Analysis of Possible Solutions

After the proper analysis of the problems and requirements of HI5TREASURES._.PKR. I decided to design an e-commerce website. The main goal of "HI5TREASURES._.PKR" is to deliver happiness, smiles and satisfaction to its customers

2.2.1. Requirement Analysis

In the requirements specification process, I described the software system to be developed. I highlighted the details about what the software is expected to do, how it

should behave, and the constraints and qualities it must possess. The requirement specifications in the context of my project are listed below as two types:

2.2.1.1. Functional Requirements

Some of the functional requirements of this system are as follows:

- Allow users to search products, view products, categories, reviews and about the organization and add to cart, do order and make payment.
- Allow users to provide feedback to HI5TREASURES._.PKR and contact them if they have any queries.
- Only the admin has the right to add, edit and delete contents of the website.
- There should be proper communication channel between the admin and users.
- Allow the admin to showcase the products in proper manner.
- Making the website that stores the status of the pending orders and payment.

Following is the Use Case Diagram of "HI5TREASURES._.PKR" that describes the functional requirements:



Figure 2.1. Use Case Diagram

2.2.1.2 Non-Functional Requirement

The non-functional requirements of HI5TREASURES. PKR are listed below:

Usability

The system should be easy to use by the user. It should be simple in the way it displays all relevant data. The menus of the system must be easily navigable by the users with buttons that are easy to understand.

Availability and Reliability

The website should be available to users at all times, with minimal downtime for maintenance and updates. The website must provide a password-enabled login to the user to avoid any foreign entity changing the data in the system. If any requested process fails, it should provide the user the reason for the failure.

Security

The system should resist the unauthorized, accidental or unintended usage and provide access to only the legitimate users.

Performance

The website should load quickly to provide a smooth user experience. The site should also handle increased traffic during peak periods, such as season time like Valentines Day, New Year, Wedding Seasons, etc.

Compatibility

The website should function correctly across various web browsers and versions, as well as in different devices such as desktops, laptops, tablets, and smartphones.

2.2.2. Process Modelling

2.2.2.1. Activity Diagram

For visualizing the flow of activities or actions within a system, process or workflow, I used activity diagram. The activity diagram of this project is represented as follows:

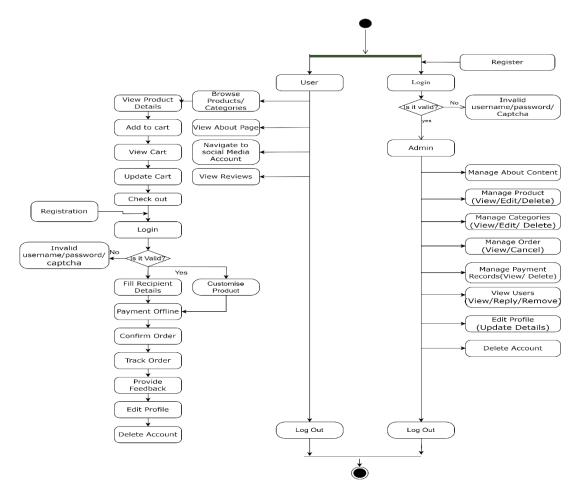


Figure 2.2. Activity Diagram

2.2.2.2. DFD

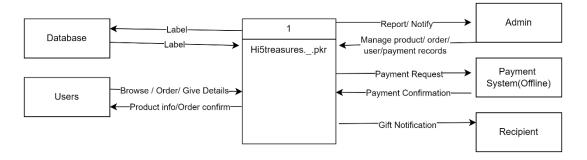


Figure 2.3. Level 0, DFD

2.2.2.3. Sequence Diagram

The flow of messages in HI5TREASURES._.PKR is represented with the help of sequence diagram as follows:

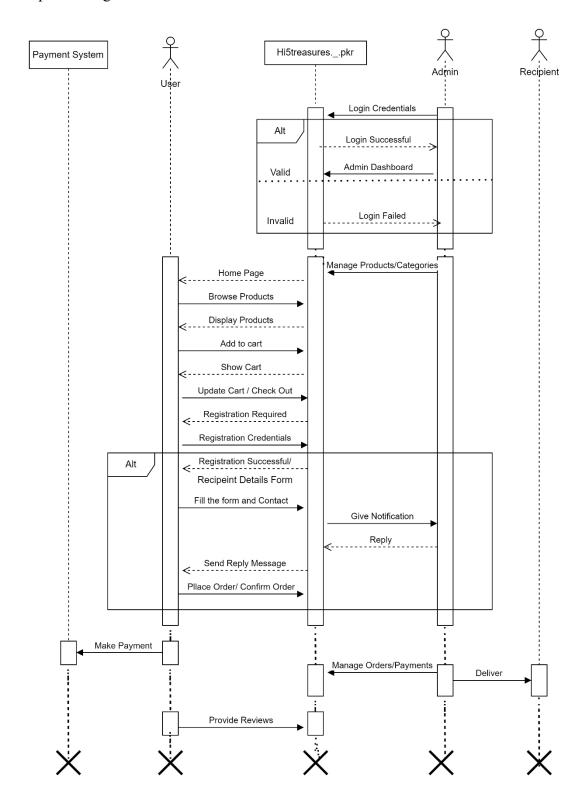


Figure 2.4. Sequence Diagram

2.2.3. Data Modelling

I created a visual representation of either a part of information system to communicate connections between data points and structures by using Data Modelling.

2.2.3.1. ER Diagram

The visual representation that depicts the major entities or objects within a system and the relationships between them is represented as follows:

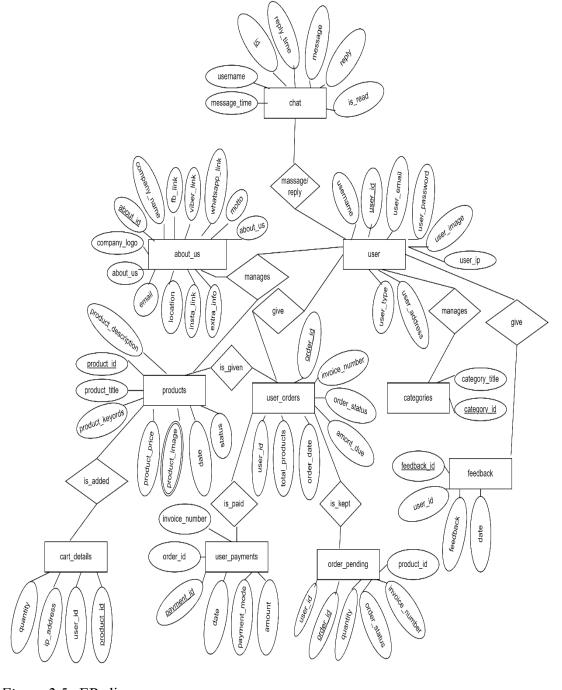


Figure 2.5. ER-diagram

2.2.4. System Design

2.2.4.1. System Flowchart

I created a diagram that describes how an entire system operates with the help of flowchart. It helps to recognize the flow of operations in the system. The flowchart of this project is:

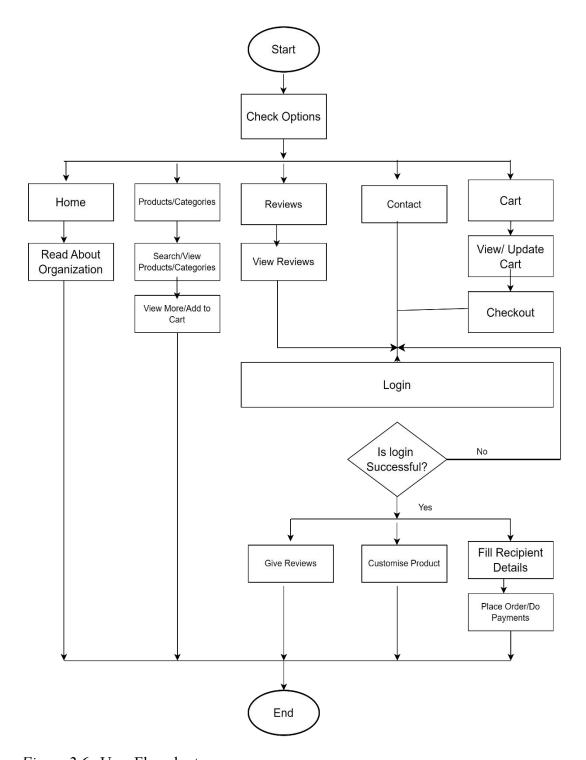


Figure 2.6. User Flowchart

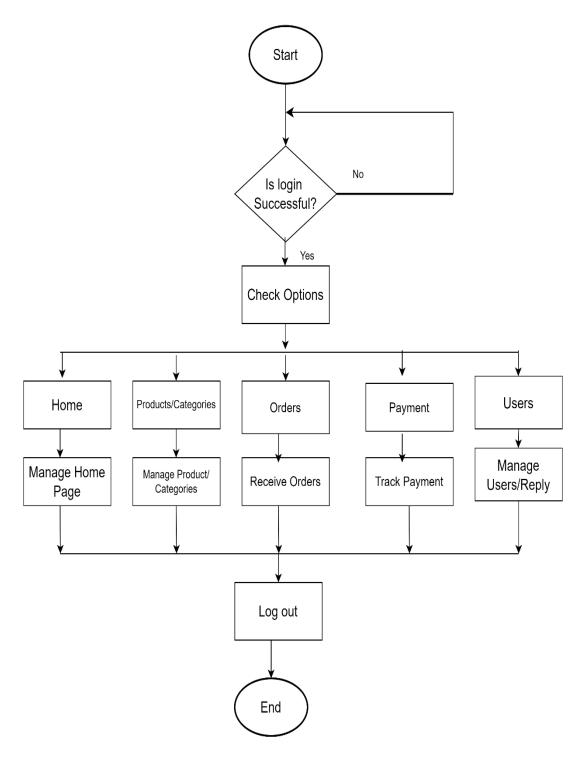


Figure 2.7. Admin Flowchart

2.2.4.2. Class Diagram

I represented a static view of the system with the help of class diagram as follows.

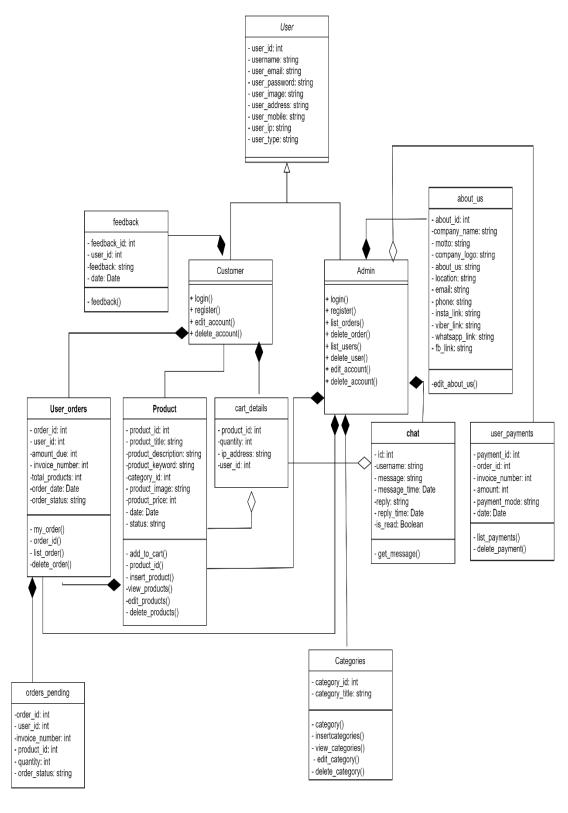


Figure 2.9. Class Diagram

2.3. Testing

After the project was completed, I tested my work to ensure high quality and optimal performance, and to detect and eliminate any bugs or errors

2.3.1. Test Cases for Unit Testing

During the coding phase, each module was subject to testing to verify that it functions properly. Any issues found during unit testing were subsequently debugged. Some examples of the test cases that were performed during unit testing are listed below:

Project Name:HI5TREASURES._.PKR

Unit Name: Login and Registration

Assumption: The registration U/I has text field to enter- username, user_email, user_password, user_image, user_address, user_mobile, user_ip, user_type and the login U/I has text field to enter username, password and captcha

Test Steps:

- Open login or registration file.
- Enter details.
- Press submit button.

Table 2.1. *User Registration*

ID	Test Input	Expected	Actual	Result
		Outcome	Outcome	
1.	Username:Arohi Mittal	Registration	Registration	Test
	User Email:	Successful!	Successful!	Successful
	arohimittal00@gmail.com User Image: admin2.jpg			
	Password: arohi			
	Confirm password: arohi			
	Address: Pokhara			
	Contact: 9846907548			
	User_type: Admin			
2.	Username:Arohi Mittal	Password	Password	Test
	User Email:	didn't match	didn't	Successful
	arohimittal00@gmail.com		match	
	User Image: admin2.jpg			
	Password: arohi			
	Confirm password: arohi1			
	Address: Pokhara			
	Contact: 9846907548			
	User_type: Admin			

Table 2.2.

Admin Login

Test	Test Input	Expected	Actual	Result
Case ID		Outcome	Outcome	
1.	Name: Arohi Mittal	Login	Login	Test
	Password: arohi	Successful!	Successful!	Successful.
	Captcha: 7345a123			
	Captcha Code:			
	7345a123			
2.	Name: Arohi Mittal	Login failed!	Invalid	Test
	Password: arohi1		Credentials	Successful.
	Captcha: 234512ab			
	Captcha			
	Code:234512ab			
3.	Name: Arohi Mittal	Login failed!	Invalid	Test
	Password: arohi		Credentials	Successful.
	Captcha: 7a56bddc			
	Captcha Code:			
	7a66ddc			

Table 2.3

User Login

Test	Test Input	Expected	Actual	Result
Case ID		Outcome	Outcome	
1.	Name: Krishna	Login	Login	Test
	Password: kl1234	Successful!	Successfully!	Successful.
	Captcha: 7345a124			
	Captcha Code:			
	7345a124			
2.	Name: Krishna	Login failed!	Invalid	Test
	Password: kl123		Credentials	Successful.
	Captcha: 234512ac		during login	
	Captcha			
	Code:234512ac			
3.	Name: Krishna	Login failed!	Invalid	Test
	Password: kl1234		Credentials	Successful.
	Captcha: 7a56b6dc		during login	
	Captcha Code:			
	7a66ddc			

2.4. Findings

Based on the successful results obtained from different testing carried out on different orientations, it can be concluded that the project has been developed to a high standard with a desired outcome. It has been revealed that the website was well-constructed, functional, and user-friendly platform that provides the browsing option to the users. The testing process was effective in ensuring the expected outputs were obtained, indicating that the system is functioning as intended.

The findings below are based on the results of testing and evaluation, highlighting the strengths and areas for improvement.

- The website demonstrates robust functionality, with all essential features working as intended.
- Forms, links and interactive elements function smoothly, providing a seamless user experience.
- Pages load quickly, contributing to a positive user experience and preventing user frustration due to slow loading times.
- Content on the website is well organized, informative, and up-to-date.
- Users can easily provide feedback through forms and interactive elements
- Users can easily customize their product through chat box
- Admin can display messages, information and products with their wish.

CHAPTER III

DISCUSSION AND CONCLUSION

3.1 Discussion

The main aim of this project was to design a website for HI5TREASURES._PKR. Being through different difficulties and hit-and-trailing through various ways to deliver the best I could, this project has finally been completed. Great effort and time were spent on completing the project as per the requirement specified by HI5TREASURES._.PKR. Despite the challenges and problems, the project was completed in specified duration and also, as per the organization's requirement.

An internal review of the website was conducted to evaluate what went well, what challenges were faced, and how they were overcome. The website was also tested by the owner of HI5TREASURES._.PKR. The website was also checked for its functionality to ensure that all planned features have been successfully implemented and whether there are any outstanding bugs or issues. It was made sure that the website can facilitate user authentication, product management, shopping cart and checkout, customization, order management, payment processing and communication and feedback between HI5TREASURES._.PKR and its customers.

3.2 Conclusion

The "HI5TREASURES._.PKR" website is believed to work significantly to represent the organization. The features in this website and attractive U/I involve a comprehensive approach to system design, data management and user experience. The error free system can easily handle multiple feedbacks, orders and payments of users and provide services to them. When HI5TREASURES._.PKR website will be paired together with social media channel, they will be complementary parts of the same well-oiled machine. When done right, the website and social media strategy will be fundamental pillars in lead generation and growth strategies

The successful completion of this project showcases the ability to design and develop a reliable and user-friendly website. With the existent problem of displaying products, browsing products, tracking orders barriers in HI5TREASURES._.PKR, I believe the website has the potential to make a significant difference in functioning of the organization.

3.3 Recommendations

As the system was developed within a limited timeframe, there is potential for further enhancements and features to be added in the future to improve the overall user experience and functionality. Some future enhancements for my website are:

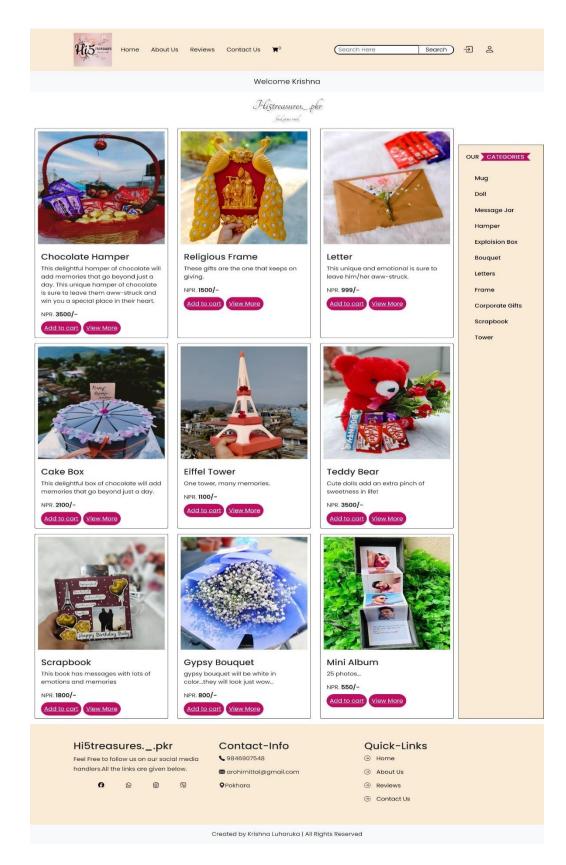
- Personalization: Implementing personalized recommendations based on user behavior and preferences to enhance the shopping experience and increase sales
- AI and Machine Learning: Utilizing AI for inventory management, sales forecasting, improving customer service like voice search and visual search, optimizing operations, enhancing security and fraud detection and dynamic pricing.
- Mobile Application: Developing a mobile app to offer a more accessible and convenient shopping experience for users on the go.
- Use of AJAX: using ajax to enhance the shopping experience of the users.

REFERENCES

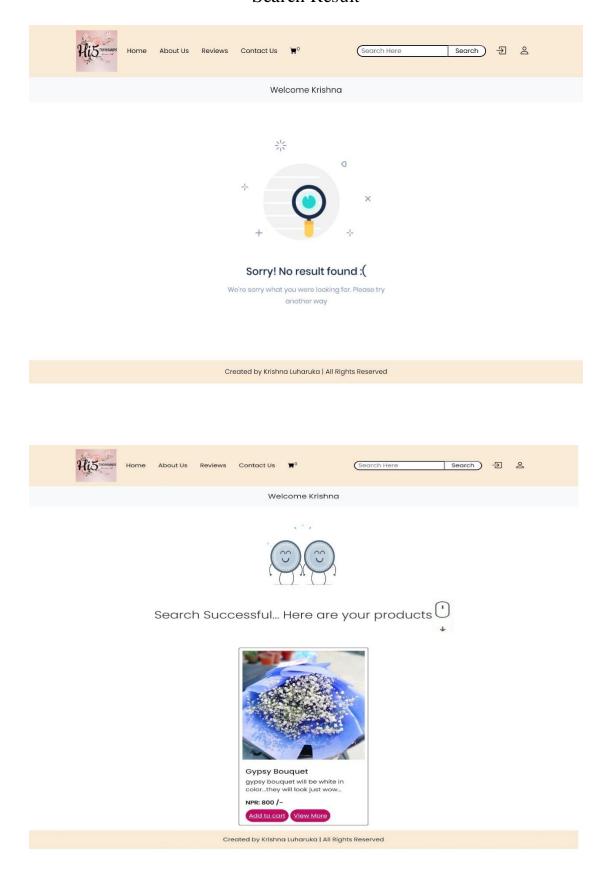
- Blog.devgenious.io: Class Diagram Retrieved from https://blog.devgenius.io/basic-introduction-to-uml-class-diagrams-5b085fd2ca2b (retrieved on 2024/05/23)
- Bootstrap: Build Fast responsive website. Retrieved from https://in.search.yahoo.com/search?fr=mcafee&type=E211IN826G0&p=% 3A+https%3A%2F%2Fgetbootstrap.com(retrieved on 2024-01-26)
- Chat Gpt: Chat bot Coding. Retrieved from https://chatgpt.com/c/17acad0d-ac4d-4227-b812-0e4389f6a6d3 (retrieved on 2024-05-15)
- Font Awesome: To insert icon Retrieved from https://fontawesome.com/ (retrieved on 2024-03-11)
- Google API: To do font family Styling: Retrieved From
- https://developers.googleblog.com/en/introducing-the-google-font-api-google-font-directory/ (retrieved on 2024-5-15)
- Step by Step: Ecommerce Website Development. Retrieved from https://www.youtube.com/@KhanamCoding (retrieved on 2024-01-26)

APPENDICES

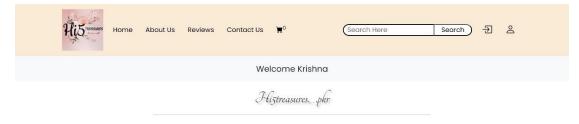
Home Page



Search Result



About Us Page

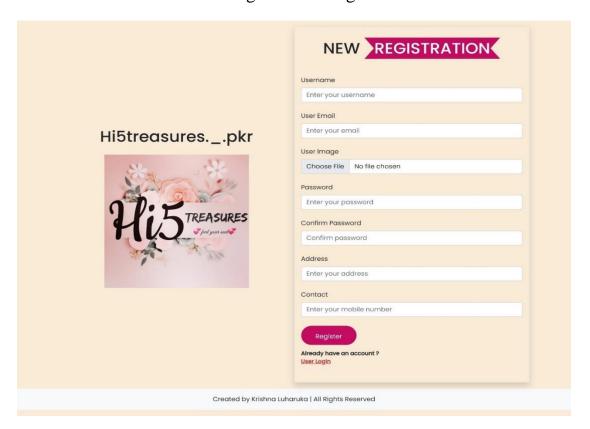


Delivering happiness through the gifts....In a fast-paced world where meaningful moments with loved ones can slip through our fingers and the demands of daily life often conceal the things that truly matter, Hi5treasures is your partner in nurturing genuine human connections that you dearly crave. For 5 wonderful years, we have not only added extra sparkle to numerous celebrations but have also touched many souls and treasured countless relationships. Our journey has always walked hand in hand with your evolving needs and changing tastes. And every gift within our collection, whether it be a bouquet, or a personalised keepsake, has carried a story of love, gratitude, and affection. The heart of Hi5treasures remains unwavering in its commitment to satisfy its customers...After all, we do not just deliver gifts; we facilitate the expression of your feelings and the forging of deep ties with those you cherish. This promise has been our guiding light for years, it shines with even more warmth to help you keep that flame of love blazing!!!

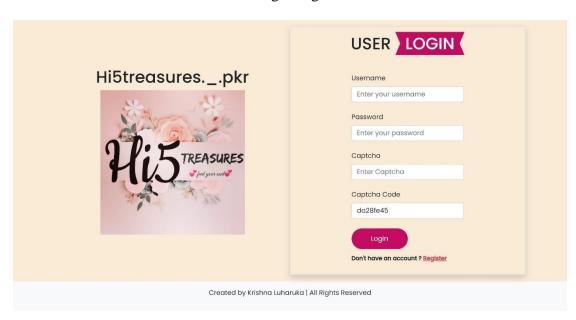
Gifts That Speak the Language of Love!!.... There is no better way of expressing love to your dearest one than through thoughtful gifts! The language of love is a universal one, and we all know that sometimes words alone are not enough. What is more, the best way to show someone you love them is by giving them something that truly conveys the feelings you have for them. And what better way to do so than with gifts that express your affection? At Hi5treasures, we understand these sentiments and bring you a wide range of exquisite gifts online. From beautiful flowers to tempting chocolates and emotional handicraft items to meaningful gifts and personalized items, we have got all your gifting needs covered. Whether it is for birthdays, anniversaries, or special occasions like Mothers Day, Fathers Day, Friendship Day, Dashain, Tihar and Valentines Day, Hi5treasures has the perfect gift selection, to make your loved ones feel cherished. Our commitment to quality and customer satisfaction is evident in every gift we deliver. With our extensive collection of romantic flowers, personalized items, and convenient same-day delivery on valentine gifts, Hi5treasures is your ideal gifting platform for every memorable occasion.

"feed your soul."

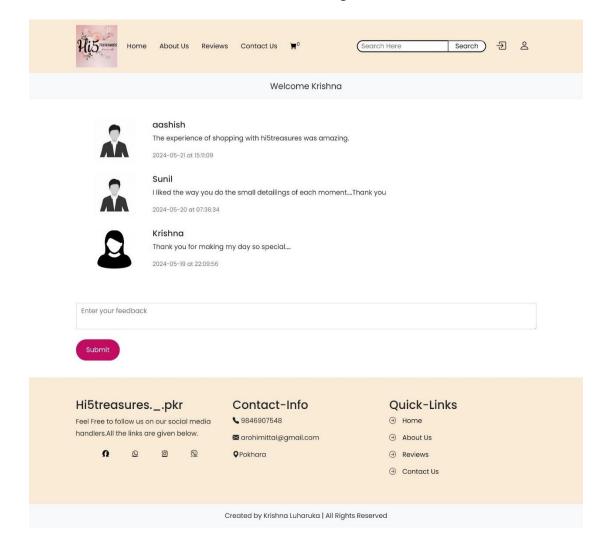
Registration Page



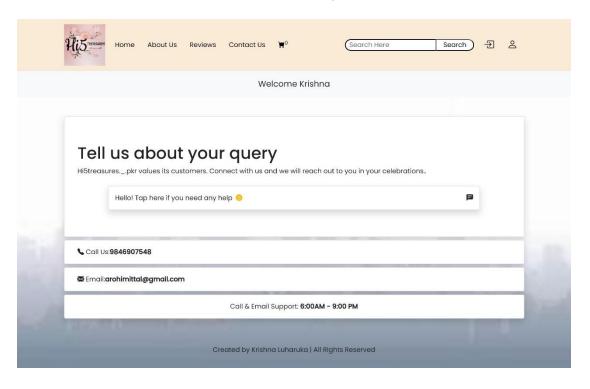
Login Page

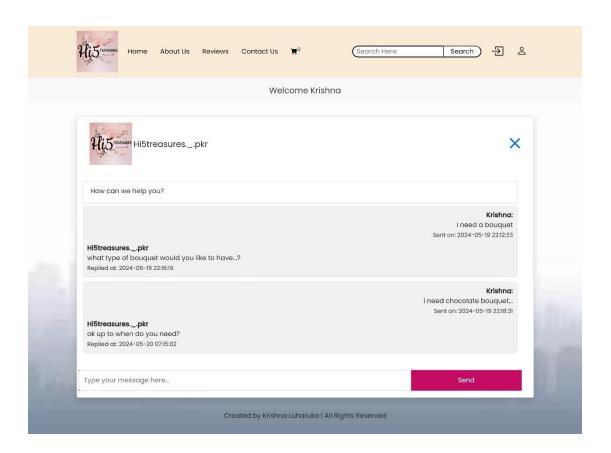


Review Page

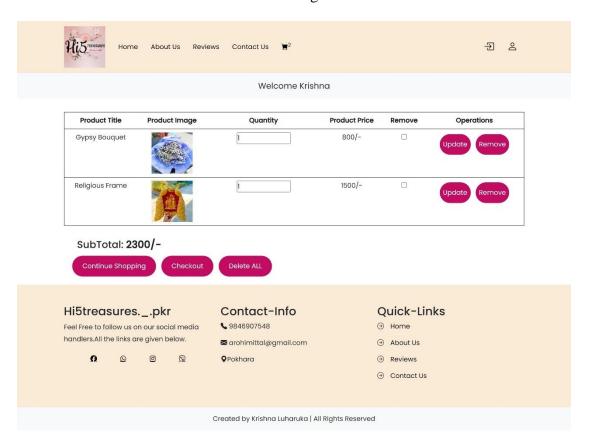


Contact Page

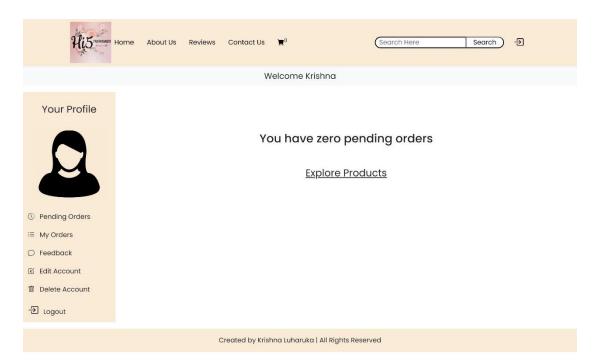


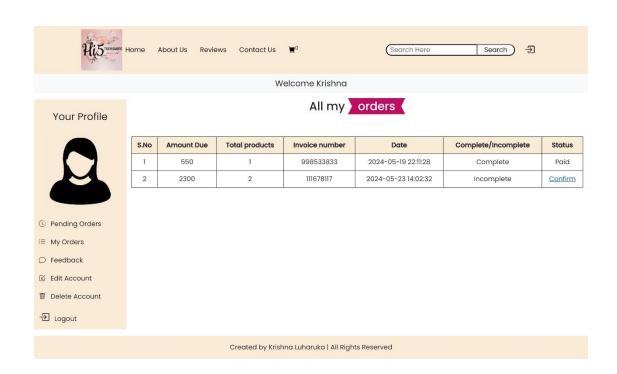


Cart Page

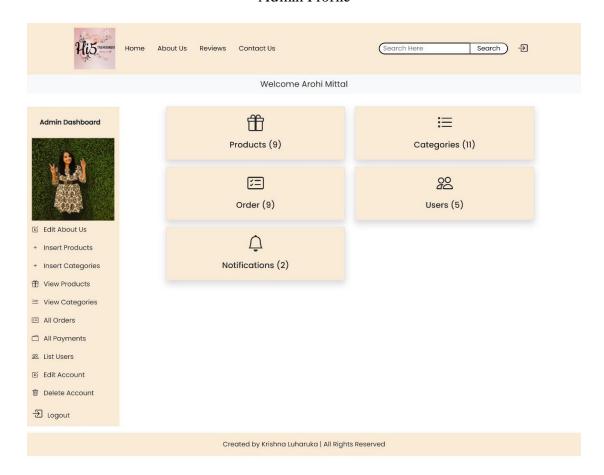


User Profile



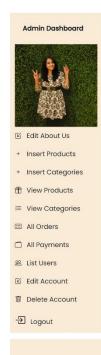


Admin Profile





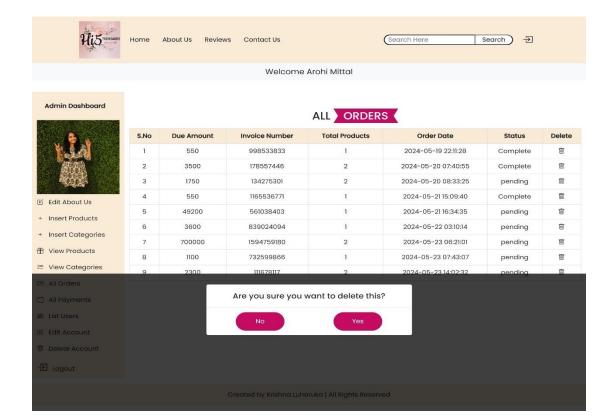
Welcome Arohi Mittal



ALL CATEGORIES

S.No	Category Title	Edit	Delete
1	Bouquet	K	Î
2	Hamper	Ľ	Ū
3	Frame	ď	î
4	Mug	ď	Ē
5	Exploision Box	ď	Ū
6	Message Jar	ď	Û
7	Corporate Gifts	ď	Î
8	Scrapbook	ď	î
9	Tower	ď	Ī
10	Doll	ď	ī
11	Letters	ď	Û

Created by Krishna Luharuka | All Rights Reserved





Welcome Arohi Mittal

Admin Dashboard



- ☑ Edit About Us
- + Insert Products
- + Insert Categories
- Tiew Products
- □ View Categories
- All Orders
- 🗂 All Payments
- & List Users
- ☑ Edit Account
- Delete Account
- Ð Logout

ALL PAYMENTS

S.No	Invoice Number	Amount	Payment Mode	Order Date	Delete
1	998533833	550	Mobile Banking	2024-05-19 22:11:28	Û
2	178557446	3500	esewa	2024-05-20 07:40:55	Û
3	1165536771	550	Pay offline	2024-05-21 15:09:39	亩

Created by Krishna Luharuka | All Rights Reserved



Welcome Arohi Mittal

Admin Dashboard



- + Insert Products
- + Insert Categories
- Tiew Products
- □ View Categories
- □ All Orders
- ☐ All Payments
- Delete Account
- **→** Logout

ALL USERS

S.No	Username	User email	User Image	User Address	User Mobile	Messages	Delete
2	Krishna	krishna@gmail.com	8	pkr	9869141935	<u></u>	Î
3	Sunil Luharuka	sunil4mamata4@gmail.com	2	pokhara	9846024225	⊚ º	Ī
4	Sunil	sunil4mamata@gmail.com		pokhara	9846024225	<u></u> 2	Ī
5	aashish	ashishchapain86@gmail.com	2	Masbar. 7 Pokhara Kaski	9840221385	<u>∞</u> º	Ī
6	Kusum	kusum@gmail.com	Ω	pokhara	987654321	<u>∞</u> º	Î

Created by Krishna Luharuka | All Rights Reserved

