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A Complete Personal Responsive Website For "SHS InternationalBD" (Minhaz Group)

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Independent University, Bangladesh

A Complete Personal Responsive Website For "SHS InternationalBD" (Minhaz Group)

By

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Summer, 2022

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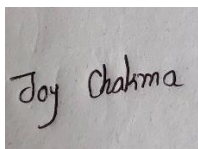Independent University, Bangladesh

September 14, 2022

Dissertation submitted in partial fulfillment for the degree
ofBachelor of Science in Computer Science

Department of Computer Science & Engineering

Independent University, Bangladesh

Attestation

This is to certify that the report titled "A complete personal Responsive website for SHS InternationBD (Minhaz Group)" is completed by me, Joy Chakma (1820565), submitted in partial fulfillment of the requirement for the Degree of Computer Science from Independent University, Bangladesh (IUB). It has been completed under the guidance of Mr. Sanzar Adnan Alam (Supervisor). I also verify that all my work is authentic which I have presented and learned during my internship. All the sources of information used in this project and report has been duly acknowledged in it.

14 September,2022

_____   _____
Signature   Date

Joy Chakma
_____
Name

Acknowledgement

Joy Chakma

September 14, 2022

Dhaka, Bangladesh

Letter of Transmittal

September 14, 2022

Mr. Sanzar Adnan Alam

Lecturer

Department of Computer Science and Engineering

Independent University, Bangladesh.

Subject: Internship Report Submission Summer, 2022.

Dear Sir, it is a great pleasure and honor to submit my internship report on SHS InternationBD (Minhaz Group)" under your guidance. I have tried to present my project work, my accomplishments and experience in this report.

I have completed my Internship from Minhaz Group as a IT Executive Officer from the 1st June 2022 to 31st August 2022. During this time period, I have gained real life experience on working as a IT Executive Officer and acquired knowledge in various aspects including web development, MS Office related work, Graphic Design Work and also Digital Marketing. This report covers all the project works, work experiences and learning that I have accomplished during this internship.

I would like to thank you for your endless support, guidance and patience. I have tried to complete this with maximum honesty and sincerity. I pray and hope that this report will be interesting and fulfil your expectations. I have tried my best to avoid any kind of errors and deficiencies, and hope that my report fulfills all the requirements to your expectations.

Sincerely,

Joy Chakma

Id: 1820565

Evaluation Committee

Signature: ………………………

Name: Sanzar Adnan Alam

Supervisor

Signature: ………………………….

Name: Ajmiri Sabrina Khan

Internal Supervisor/ Panel Member

Signature: ……………………………….

Name: Sahadat Hossain

Organizational Supervisor

Signature: ………………………………….

Name: Dr. Mahady Hasan

Head of the Department / Convener

Abstract

Internship is defined as obtaining practical experience from various organizations, which helps in the formation of a connection between theoretical and practical knowledge. It is very important because it is the first time for a student to acquire a keen practical knowledge from the different organizations. When I was offered an internship at Minhaz Group, I got the chance to work and learn with Company Director and also with the manager. The project's goal was to create a personal website for SHS InternationalBD (Minhaz Group). This report covers the whole project that I learned about throughout my internship period.

I had to finish my learning sessions before working on any project, and in this learning session, I was allocated to develop landing page, dashboard, different interface for different parts and some back-end codes. It was almost like a skill test before the actual project was assigned.

I've detailed the information and experiences I've gained and the work I've done as an intern at Minhaz Group, in this report. I worked on a website application where the most of my tasks included designing the entire site.

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1　Introduction

1.1　Overview/Background of the work

This report shows what work I have done during my Internship period with Minhaz Group. I will be describing about the project I have worked on in details as much as the company permits me. The project ensures a complete personal Website for SHS InternationalBD (Minhaz Group). Also, a fort polio Website for the people who will visit the company and also wants to know about the company.

1.2　Objectives

Objectives are mainly goaling of a project. The certain things that maybe achieved with the application are as follows:

Home Section

About Section

Gallery Section

Services Section

Standards Section

Contact Section

1.3　Scopes

Personal Website for SHS InternationBD (Minhaz Group). is a fully online system. The website is a fort polio website for their client. Only Authorised Persons can change every section details.

2 Literature Review

2.1 Relationship with Undergraduate Studies:

CSE101- Introduction to Computer Science: This was the first and most basic subject in our Computer Science and Engineering program. This course has helped us build a solid foundation in computer programming and coding using C++. We received a thorough explanation of the basic basis of difficult and advanced programming challenges after finishing this course.

CSE 213- Object-Oriented Programming: This was a level two course in our Computer Science and Engineering program. It follows immediately after the data structure course. It assisted us in understanding the benefits of how objects are utilized in various applications, resulting in a straightforward design and a very short development time for our application. Because of its nature of reusing code and creating models based on prior objects, it saves the majority of development time. The software development process becomes quite smooth, and the code becomes very clean. This course covers several essential principles in software development such as Classes, Objects, Inheritance, Function Overloading, and Polymorphism.

CSE 303- Database Management: This course was also an intermediate level in our Computer Science and Engineering program. It immediately follows Web Application Internet. It teaches us the essentials of database design and how to utilize database management systems, as well as the development process, architectural principles, relation algebra, and SQL for a database. It aided us in developing a solid foundation in database design principles and data modelings, such as ER diagrams and BPMN diagrams, as well as comprehending database query languages and DBMS components. It aided us in comprehending the fundamentals of data access architectures, query processing and optimization strategies, database security, and data formats.

CSE 309- Web Application and Internet: This was also an intermediate subject in our Computer Science and Engineering program. It follows System Analysis and Design. It teaches us the principles of web technologies and their applications, as well as the Client-side and Server-side architectures and how to supply dynamic content for web applications utilizing HTML, CSS, Bootstrap, and JavaScript. It assisted us in learning about web application scalability, as well as analyzing and modeling client needs and User Interfaces. This course made a significant contribution to this project. It also helped us grasp several crucial libraries that are required for the modern technologies that we would be employing. This course assisted us in designing and implementing a client-server internet application that meets specified needs and restrictions based on analysis, modeling, or requirements specifications.

CSE307- System Analysis and Design: This course provided an overview of the tools and techniques used in the design and analysis of information systems. Systems and models, project

management, tools for defining system requirements, data flow diagrams, decision tables, and decision trees, systems analysis, systems development life cycle models, object-oriented analysis, and use-case modeling are among the topics addressed. Feasibility analysis, Structured analysis, systems prototyping, system design and implementation, application architecture, user interface design, front-end, and back-end design, database design, software management, hardware selection, and information system case studies All of these lessons contributed to the ultimate project's success.

2.2 Related Works

Most of the company's portfolio landing pages use simple HTML, CSS, Bootstrap, JavaScript, and jQuery for their Design, and also for their development they use PHP, Laravel, etc. WordPress is also used to remove any level of hard coding or to faster the development. Our goal for this project is to design & develop a fort-folio website. We can see many websites on the internet. Nowadays, from Small company to Big company has their portfolio website.

3 Project Management & Financing

3.1 Work Breakdown Structure

Work Breakdown Structure (WBS) is a hierarchical structure which demonstrates a project's breakdown into smaller segments. For our project, we have produced a WBS so that our work is coordinated. WBS covers a visual of all the scopes, risks, points of communication, responsibilities, costs and guarantees that it does not skip essential deliverable. For brainstorming and collaboration, it is the ideal tool for the team. In our WBS, we have used the top-down approach.
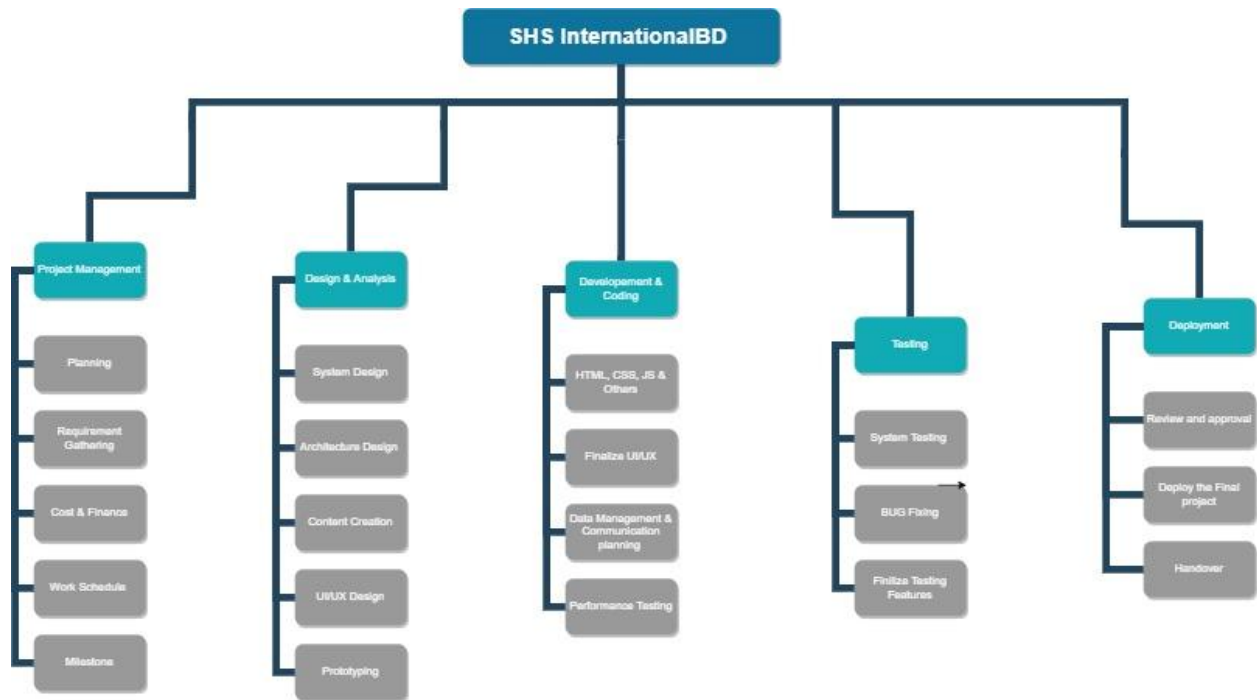
Figure 1:   Work Breakdown Structure

3.2 Process/Activity Wise Time Distribution:

The work and time distribution of our project is as follows:

Index	Activity Description	Dependency	Duration
A	Proposal	none	5 Days
B	Acceptance	A	2 Days
C	Planning	A, B	4 Days
D	Requirement Gathering	C	8 Days
E	System Design	D	15 Days
F	UI/UX Design	D, E	11 Days
G	Content Creation	F	5 Days

H	Coding	E, F, G	28 Days
I	Testing	H	8 Days
J	Deployment	I	4 Days

Table 1:   Activity wise time distribution

3.3 Gantt Chart:

The Gantt chart is made from the WBS mentioned in the earlier section. It shows How we have implemented the work. We started at June 1, 2022 for this project and finally after at August 31st,2022 we implemented the system.

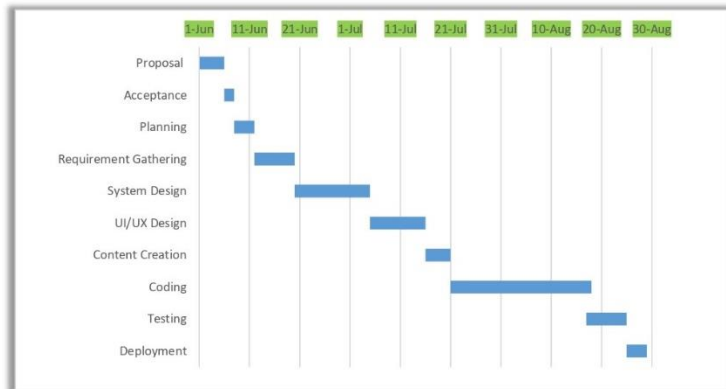| Activity Description	Date	Day to complete
Proposal	01-06-22	5
Acceptance	06-06-22	2
Planning	08-06-22	4
Requirement Gathering	12-06-22	8
System Design	20-06-22	15
UI/UX Design	05-07-22	11
Content Creation	16-07-22	5
Coding	21-07-22	28
Testing	17-08-22	8
Deployment	25-08-22	4

Figure 2:   Gantt chart

3.4 Process/Activity Wise Resource Allocation

Resource allocation is the process of assigning assets in a manner that supports your team's goals. For this project, the developers are considered as the primary resource followed by the computers used in the office, the servers required for the deployment of the project. Every employee of the company is considered a resource; hence everyone has assigned a particular assignment with certain deadlines, all of which collaborated to the entire production of the project. For this project, we need total 90 days for building the whole system. Following are the details of every step of the project:

Activity Wise Resource Allocation		
Activity Description	Day to complete	Work Percentage
Proposal	5	5.56%
Acceptance	2	2.22%
Planning	4	4.44%
Requirement Gathering	8	8.89%
System Design	15	16.67%
UI/UX Design	11	12.22%
Content Creation	5	5.56%
Coding	28	31.11%
Testing	8	8.89%
Deployment	4	4.44%
Total	90	100.00%

Table 2:   Activity wise resource allocation

3.5 Estimated Costing:

Features	Costs
Front-End Development	BDT 4,000
Back-End Development	BDT 18,000
Hosting	BDT 15,000
Others Expenses	BDT 1,500
Total Costs	BDT **38,500**

Table 3:   Estimated costing

4   Methodology

Software Development Methodology is a process or series of processes in an organized manner or arrangement of procedures used in the software development field to develop software by dividing the development work into smaller, parallel, or sequential steps to reduce time and follow a discipline to the development process. It is a broad and vast issue that includes steps such as planning, defining requirements, designing, developing, testing, deployment, and maintenance. It outlines how software should be produced and what discipline should be followed to deliver a successful result in a specific time frame.

We used the Agile method in the project.

The reason we choose This methodology is given below:

Productivity and Quality: Because the Agile technique is incremental, projects are completed in short periods, making them more manageable. It allows the project to be pushed out quickly and allows for development adjustments to be made at any moment. It can also discover problems and produce solutions quickly and efficiently, allowing team members to gather user input and constantly improve the program.

Customer Satisfaction: Regular team meetings and cooperation, as well as consumer reactions, will enable us to give timely feedback, allowing us to make major adjustments that will help us satisfy customers' expectations and requests throughout the development lifecycle. As a consequence, consumers are happy and satisfied.

Faster Development time: Agile is an iterative process, which means the product is ready to market sooner, remaining one step ahead of the competition and reaping the rewards sooner. Agile approaches minimize development costs and release time.

Flexible Control: Because the Agile approach is based on incremental development, tasks and phases may be broken down into smaller portions and completed in rapid and iterative cycles. This lets project team members communicate progress, solve concerns, and build solutions through daily meetings, bringing openness to the whole process.

5 Body of the project

5.1 Work Description:

SHS InternationalBD is a web-based application that can manage relation between Their company and people. In this system, we are going to create an easy, faster and smooth online website. By using this website people can easily get to know about the company.

This system consists of six modules. These are:

Home: Where both admin and people can see company popular services, achievements, latest blog of the company, Company partners etc.

About: Where both admin and people can see company profile- who they are, their mission, Vision and what they do

Gallery: Where both admin and people can see company pictures.

Services: Where both admin and people can see company services.

Standards: Where both admin and people can see many ISO Certification in Details.

Contact us: Where both admin and people can see contact form.

5.2 Requirement Analysis

5.3 System Analysis:

System analysis is a problem-solving method that involves looking at the wider system, breaking apart the parts, and figuring out how it works in order to achieve a particular goal. It is applied to information technology, where computer-based systems require defined analysis according to their makeup and design

5.3.1 Six Element Analysis:

PROCESS	HUMAN	NON-COMPUTING HARDWARE	COMPUTING HARDWARE	SOFTWARE	DATABASE	NETWORK & COMMUNICATION
Browsing Website	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN
Home	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN
About	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN
Gallery	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN
Services	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN
Standards	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN
Contact Us	All Users	N/A	Laptop, Computer, Smartphone	Chorme, Firefox, Opera, Brave etc.	MYSQL	WAN/LAN

Table 4:   Six Element analysis

5.3.2 Feasibility Analysis:

We have completed feasibility analysis and found that this software is quite feasible to the organization. We have done the feasibility analysis on Operational Feasibility, Technical Feasibility and Economic Feasibility.

Operational Feasibility:

Operational feasibility determines the extent to which the required system performs a sequence of levels to solve business problems and customer requirements. It is mostly depending on human resources that includes the developer team and see if the system will operate correctly after it is developed and will be operative after installation.

SHS InternationalBD website is developed with such a plan that it can be used with ease and people of all age can easily use the system, it will require very less physical and technical effort. It is planned in such a manner that it will not require too much of technical knowledge to use this

system. Every instruction will be clear and precise.

Technical Feasibility:

Technical feasibility determines whether the current resources including hardware, software and technology which will be required to accomplish the user requirements in the software can be meet within the given time and budget. It evaluates in detail, how we decide to deliver the system to the client.

SHS InternationalBD Website build by HTML, CSS, JavaScript, jQuery. These technologies are now very popular and are continuously used in modern day industries.

Economic Feasibility:

Economic feasibility determines whether the software we are making will generating revenues or any kind of financial gain for the organization. It involves analyzing if the cost might increase from development team for production, an estimated cost of hardware and software. It usually accounts for the expenses in purchasing the hardware required for developing the software and tasks required to proceed through the software development

Our web-based system is basically a product that will yield revenues throughout the time and most importantly it will reduce a huge amount of expenses. Customers are our biggest revenue generators; it will not only save expenses but rather gain revenue from good corporations and services we will provide when using the website.

5.3.3   Problem Solution Analysis:

During the project implementation various problems occurred. We tried to solve them and implement them. For all problems we followed some basic steps. They are as follows:

• Identification: Identifying the problem as precisely as possible.

• Requirements that are affected: The project requirements that are affected by the problem.

• Solution: Finding the most accurate and precise solution.

• Implementation: Implementing the particular solution.

• Testing: Testing if the solution solved the problem. If not, then previous steps are followed again.

5.3.4   Effect & Constraints Analysis:

As we start adapting to the new system and implementing it some major effects and constraints are faced while using the system. Effects and Constraints Analysis detects how the new software

might change the norms of the organizations and some setbacks and constraint of the system in the organization.

Some of the effect are, the design is based on HTML, CSS, JavaScript, jQuery Which is standard But Not advanced Programming Knowledge. Constrains will be, as it has Done only Design part. There need to do backend part.
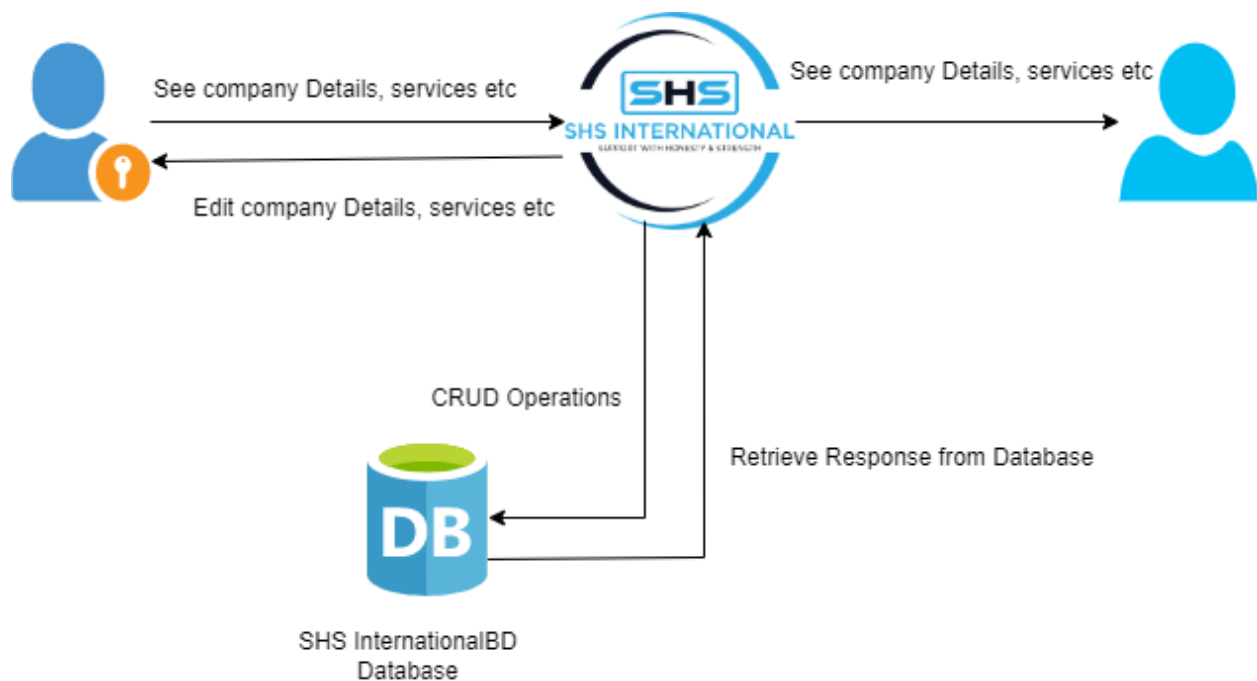
5.4 System Design:

Rich Picture:

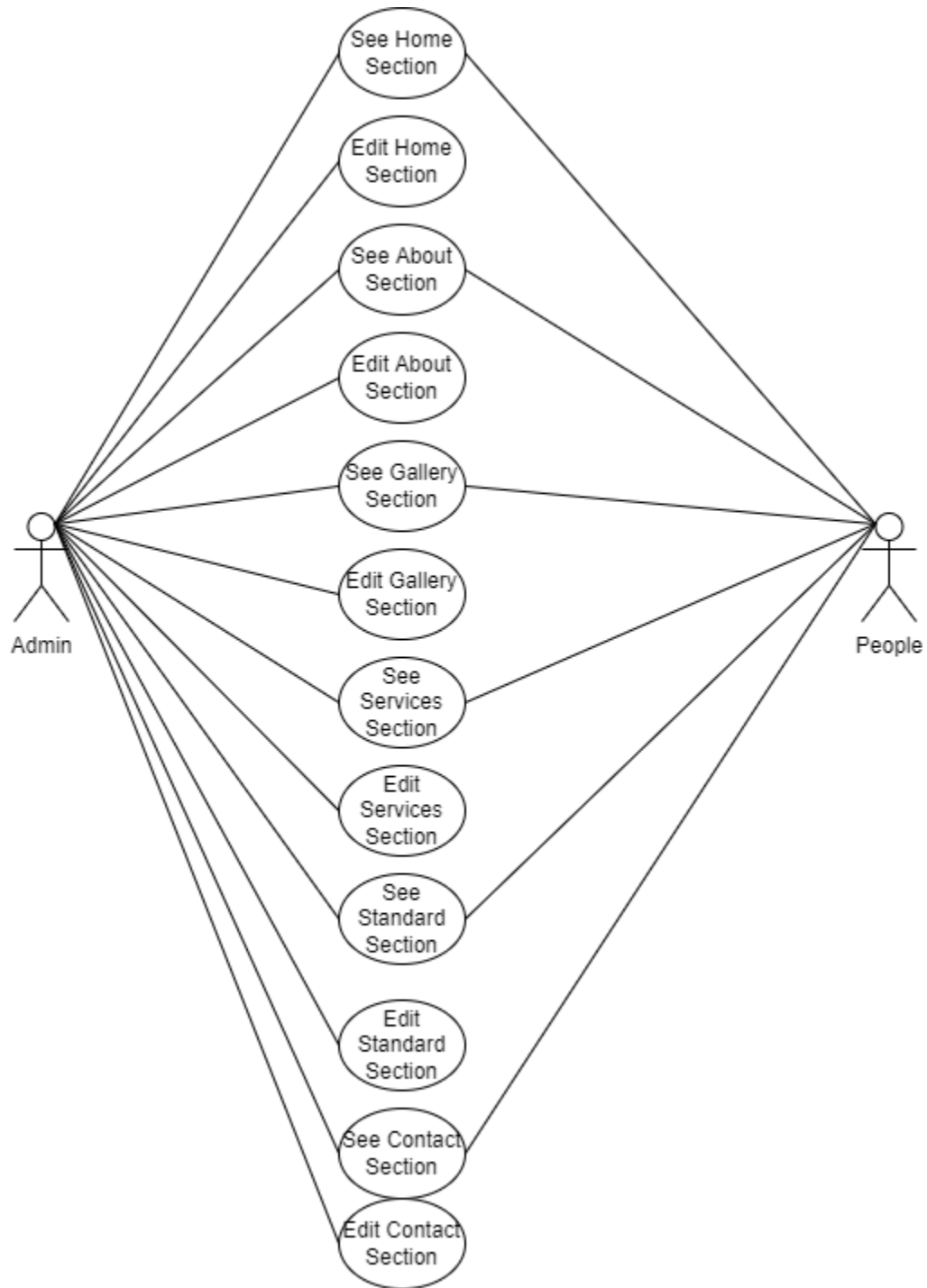Figure 3:   Rich picture
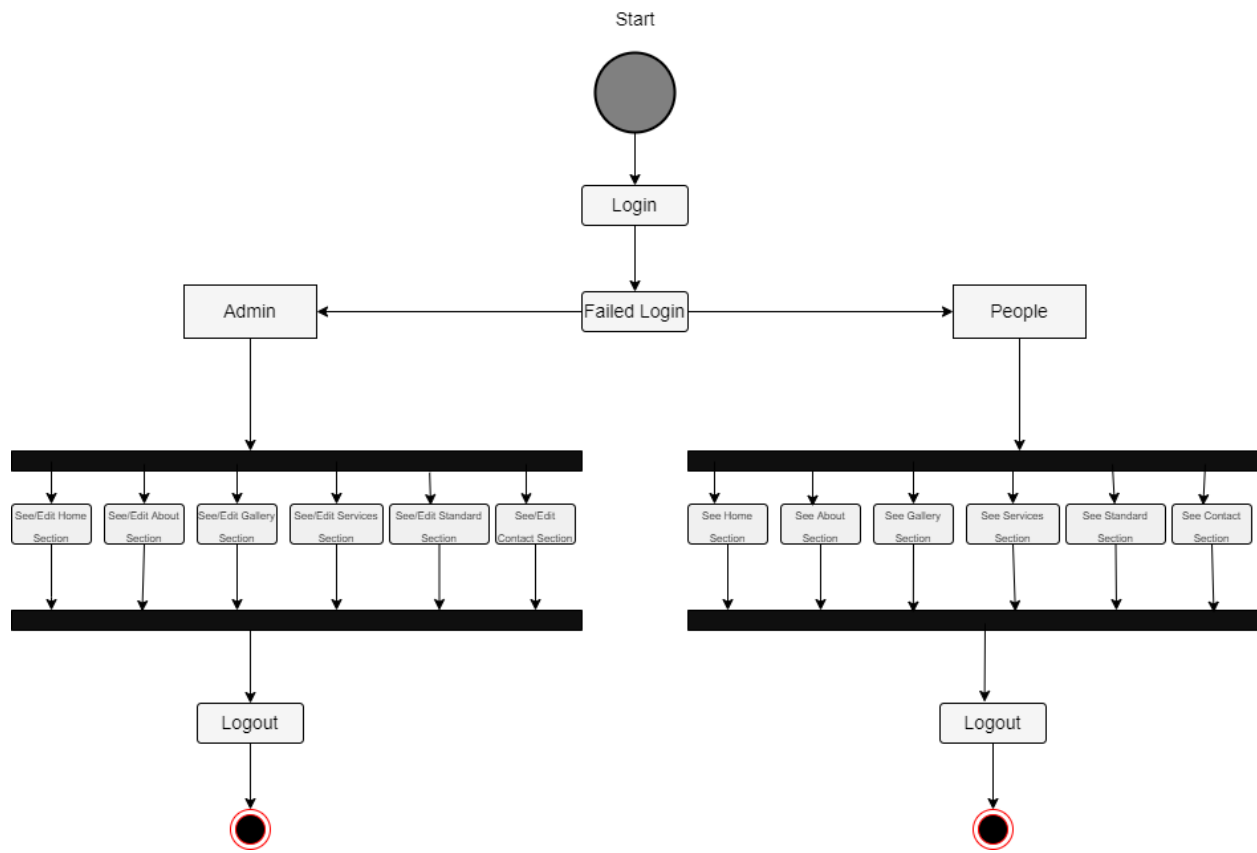
UML Diagram:

Figure 4:   UML Diagram

Activity Diagram:

Figure 5:   Activity Diagram

Functional Requirements:

Functional requirements are usually a software or system's features and functions that needs to be implemented to make a user accomplish its task or goal, it basically describes the system's behaviors under certain conditions, this includes what the system will do, their features, interfaces and focus on the user's requirements and how the system will respond to given inputs.

These are few of the functional requirements our system must have in order to achieve and accomplish its goals:

Admin will able to add, remove and edit Home details.

Admin will able to add, remove and edit About details.

Admin will able to add, remove and edit Gallery details.

Admin will able to add, remove and edit Services details.

Admin will able to add, remove and edit Standard details.

Admin will able to add, remove and edit Contact details.

Other user will able to see Home details.

Other user will able to see About details.

Other user will able to see Gallery details.

Other user will able to see Services details.

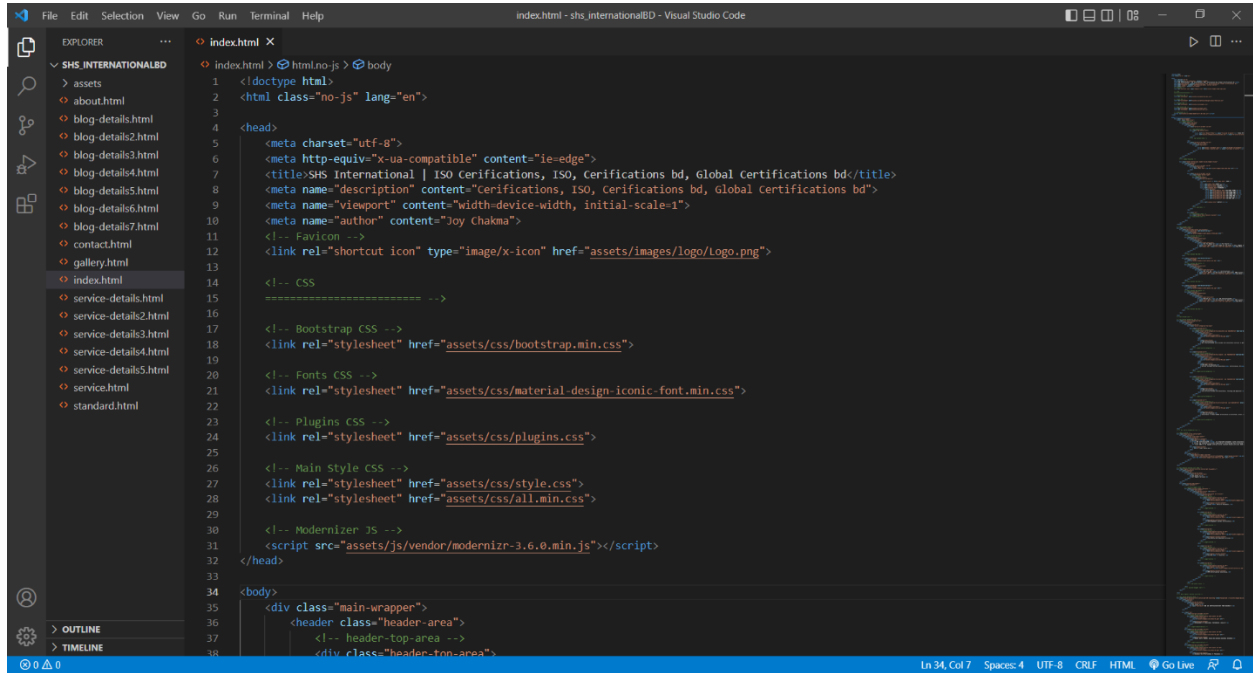Other user will able to see Standard details.

Other user will able to see Contact details.

Non-Functional Requirements:

A nonfunctional requirement is a description of the features, characteristics, and attributes of the system as well as any constraints that may limit the boundaries of the proposed solution. The non-functional requirements for the project are given below:

• Performance: The system will provide better performance. Performance requirement represents the performance. The system is required to exhibit to meet the need of users. The response time of the system should be quicker to save the time.

• Information: Information is an important resource. It represents the information that is pertinent to the users in terms of content, time accuracy and format. All the information will be kept in the database.

• Control and Security: The information will be automatically saved in the database. The control unit of accessing the details is the administrator of the software. It ensures the data accuracy and data security.

• Availability: It is a online software. So, it can be accessed anytime from anywhere.

• Usability: The software is quite user friendly

5.5 Implementation:

Figure 6:   Implementation

5.6 Testing:
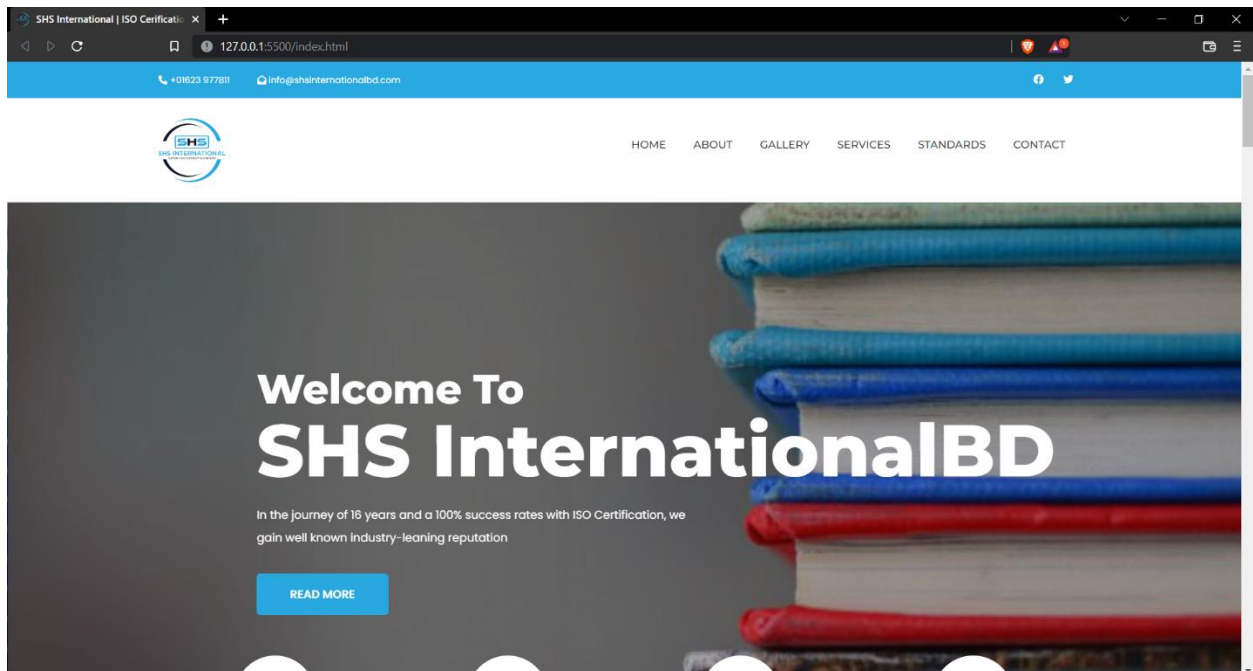
Home Section:

Figure 7:   Home section
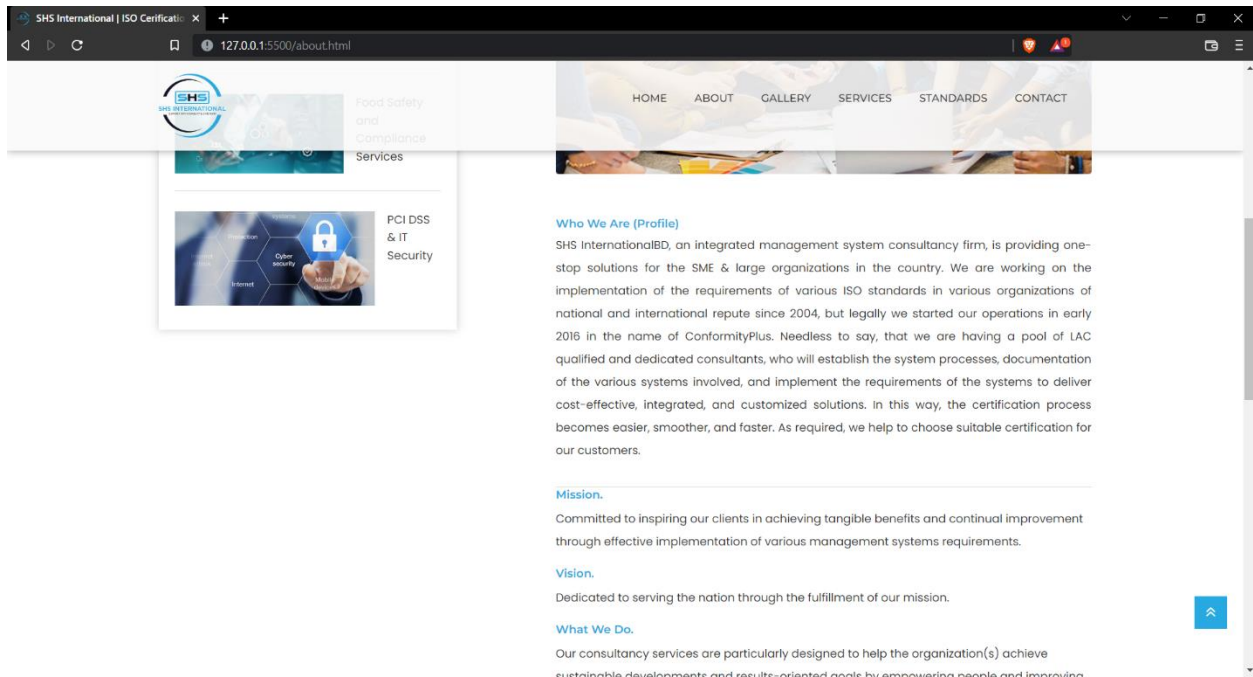
About Section:

Figure 8:   About section
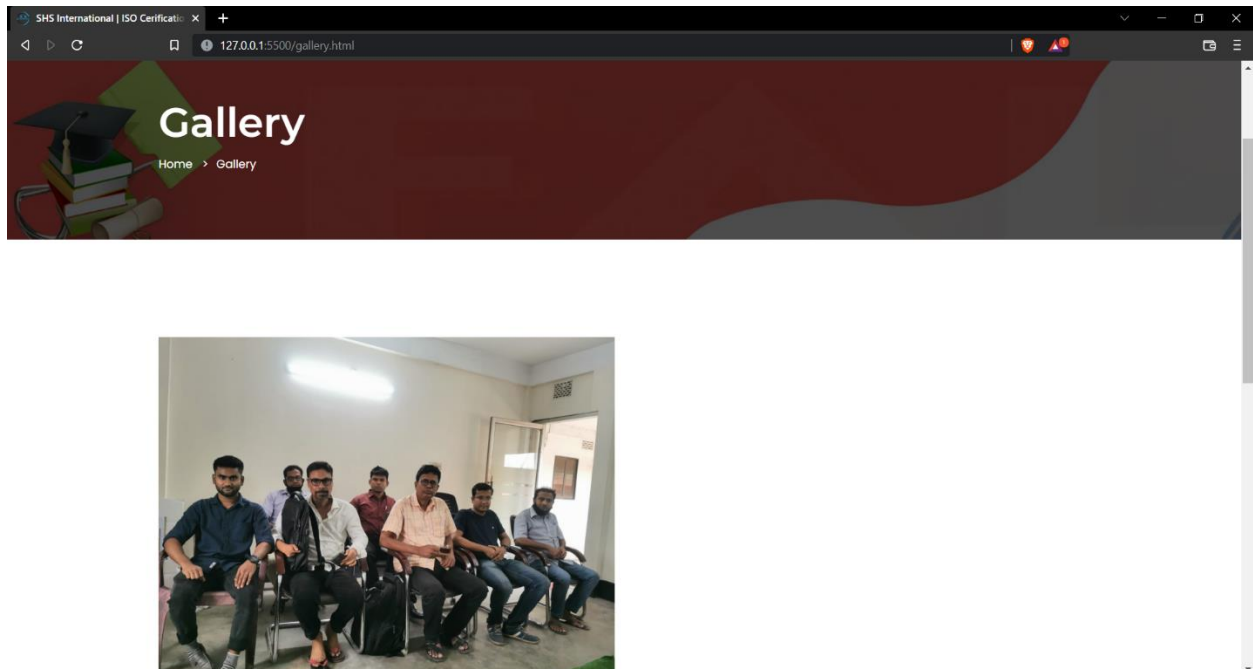
Gallery Section:

Figure 9:   Gallery section

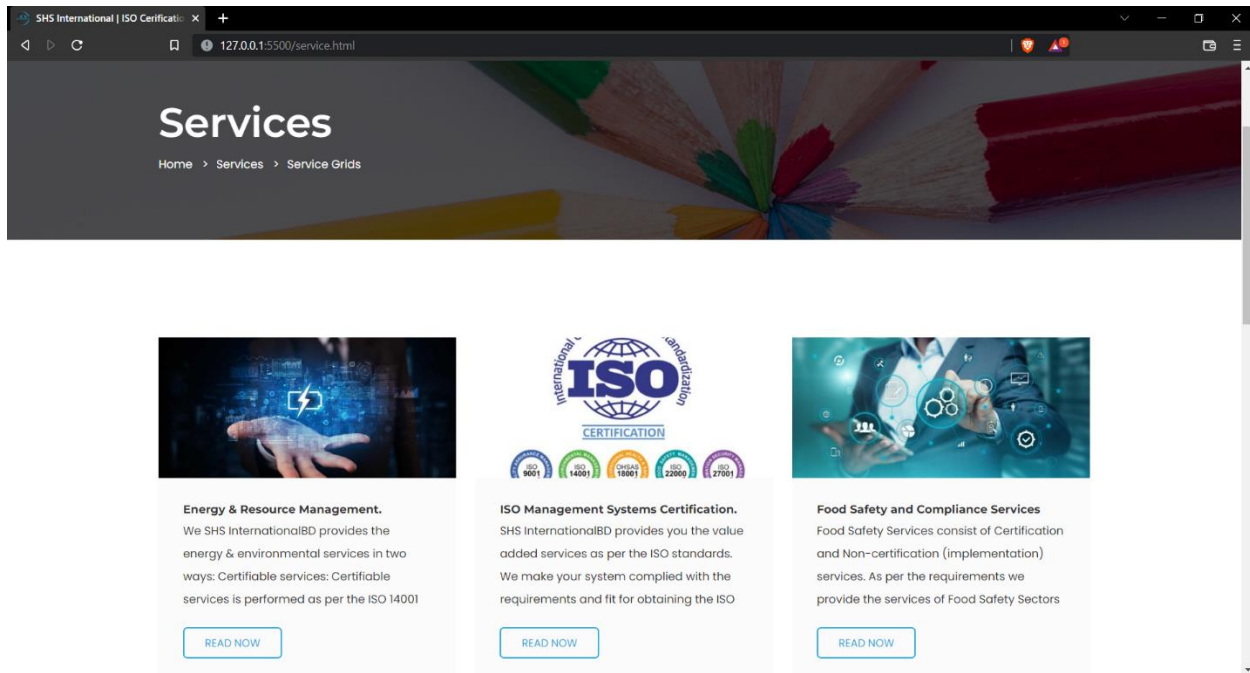Services Section:
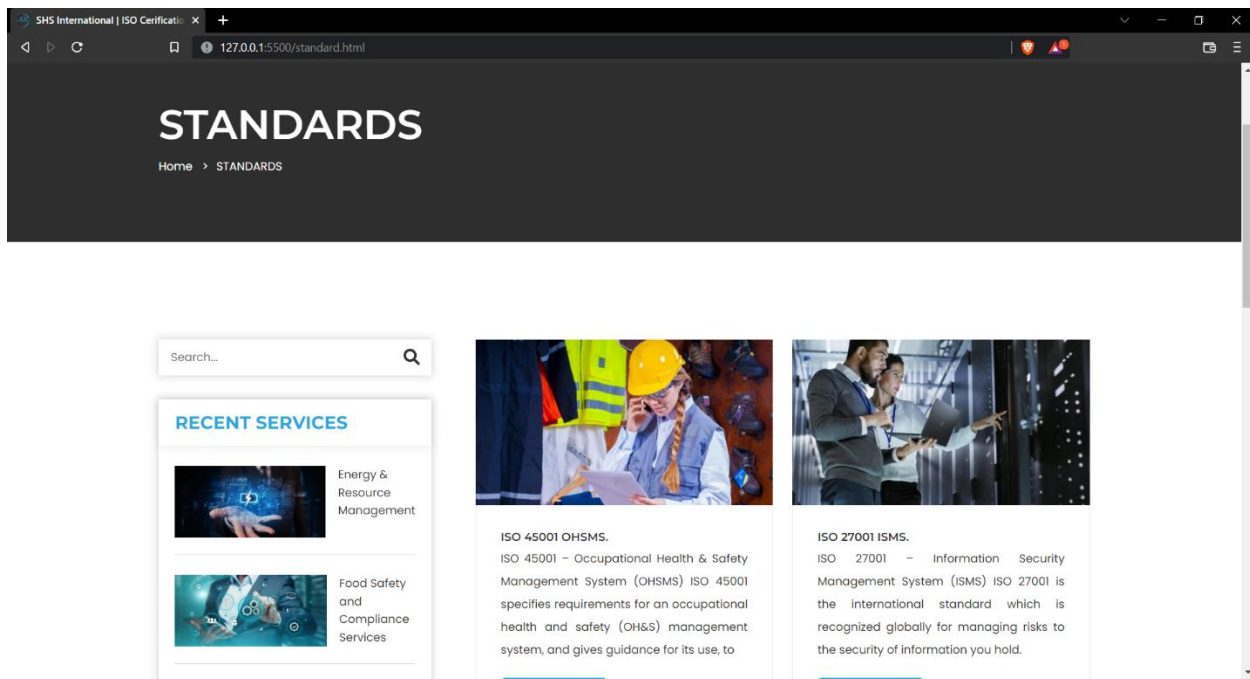

Figure 10:   Services section

Standard Section:

Figure 11:   Standard section

Contact Section:

Figure 12:   Contact section

6   Result & analysis:

In this section results or outcomes and their analysis is shown. For any project this type of analysis on the result is very crucial as it will motivate possible business analysts and clients engaged with the software and thus it may pave success path for the software itself. The final software product is the result of our efforts. Actually, an analysis has started at the very beginning and carried out whole through the project and it should be carried on by the development team. We've devised a rudimentary strategy for analysis:
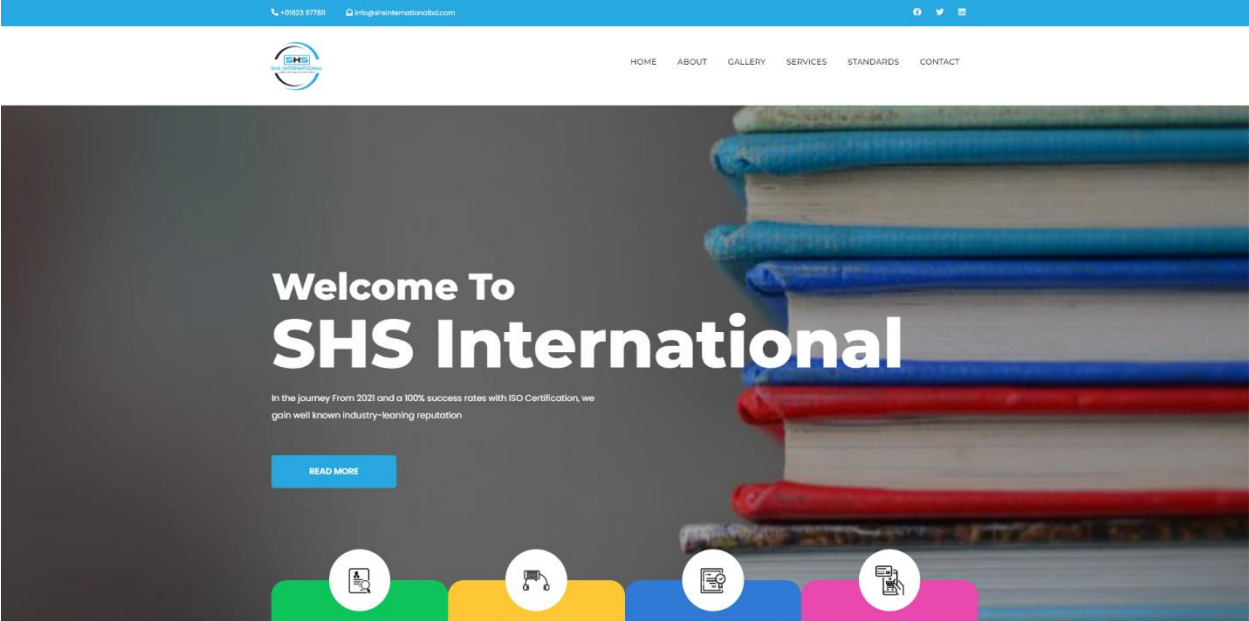
Figure 13:   Result & analysis

7   Project as Engineering Problem Analysis

7.1   Sustainability of the project/work

Sustainability is the ability to be maintained at a certain rate or level. The project that I have worked on is not different than current world other projects. It's not like something that will be kept as it is forever. Over time requirements may change and with them the web application is easily changeable. Thus, it meets the highest level of sustainability possible. The technology used for this project front-end part is html5, CSS3, bootstrap, j-query. So, we can rely that this web application

can grow for a long time without any difficulty.

7.2 Social and Environmental Effects and Analysis:

Social Effect analysis:

The software fully works internally in an organization. The software binds or integrates all the employee working in the organization. As it is an information system, limited but valuable information of all the employee is shared to each other on how employee are growing inside the organization. This really motivates or triggers everyone to work to their fullest.

Environmental effects Analysis:

Any PC programming that unequivocally hopes to exchange or decrease the necessity for mental activity runs the peril of wiping out the limit of individuals to endeavor these activities for themselves. In like manner, moreover, with the customer being clueless of it, as experience of a particular programming group grows, any weakness in reasoning or cycle that is made into the item is inclined to be passed on forward as show. Our software is fully online. So no use of extra pen ,paper ,plastic etc that can harm the natural environment. Also as data access is restricted and maintained by admin so not anyone can simply have access to the system and can use forgery of data or steal data or interrupt the data. And as admin have power to restrict employee from the org that means previous employees cannot access to the system anymore. Thus cannot spread toxicity or distractions in the system.

7.3 Addressing Ethics and Ethical Issues:

Moral issues happen when a given decision, circumstance or development unveils a conflict with an overall's moral guidelines. The two individuals and associations can be locked in with these conflicts, since any of their activities might be put to address from an ethical viewpoint. Individuals are subject to these issues in their relationship with others or in their relationship with affiliations and same goes for affiliations. Here in our software as admin or manager of the company himself monitors everything so this kind of conflict may never happen. An everything is automated. So no excuse of not doing that thing or done earlier things. But the accounts section manager must be loyal and hence need much more look up over that field and audit is compulsory

8 Lesson Learned

8.1 Problem faced during this period:

During the work period I faced few problems. I will try to elaborate those problem here.

Adapting to new Environment: Since this was the first time, I have ever worked on a web application in an office Environment I had to learn and adapt to new technologies of the company. Although acquiring the skill set was possible it became hard to apply them in real life situations.

Keeping up to Speed: After learning new technologies and putting them to use was a slow process for me initially as it was the first time, I have ever used it with an office environment. Hence, it was quite difficult to meet weekly deadlines and this slowed down the overall pace at which the application was developing.

Identifying and Fixing Bugs: Often there were bugs which were very hard to find, and even after they have been found it became a big problem to fix it. There were bugs that were so difficult to deal with that it would take a whole week to fix it.

8.2 Solution of these problem:

Adapting to New Technologies: In the beginning it was a difficult situation for me to adopt with new technologies. But after some days I habituate with the entire process by the help of my supervisor and support of web developer team.

Keeping up to Speed: Initially it was a slow process for me as it was the first time, I have never used it with an office environment. After some days, It became easier to maintaining work load and speed.

Identifying and Fixing Bugs: We have project boards linked to the shared file on google drive where we keep updating a list of bugs/features we are working on. This makes understanding the state of the code-base and fixing bugs easier for me and also for the web developer team

9 Future Work & Conclusion

9.1 Future Works:

As the project is the first version. It has many sides for improvement. Some of them are:

Add live chat system

Add premium features

Improving existing features

9.2 Conclusion

This intern opportunity was my first ever professional level experience with trained professionals. Till now whatever I have learnt or implemented was some requirements for particular courses or only for learning purposes. But finally, I got a chance to implement my academic knowledge to practical life. Finally, some contribution of mine will be used in real life. Though there were time constraint, still I really loved to work against new challenges. Life is an ever-going school of learning and experience. I learnt new technologies, Office ethics, Communication skills etc. Loyalty, honesty and integrity was some virtues that I could practice during my internship period.

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By

Joy Chakma

Student ID: **1820565**

Summer, 2022

Consent Form

The student modified the internship final report as per the recommendations made by his academic supervisor and/or panel members during final viva, and the department can use this version for archiving.

(Signature of the Supervisor)

Sanzar Adnan Alam

Department of Computer Science & Engineering

Independent University, Bangladesh