Independent University, Bangladesh (IUB)

Internship Report

On

Online Home Care Service System

In consideration of the partial fulfilment of the requirements for the degree of

B.Sc. in Computer Engineering

Submitted By: Noor Shila Haider

ID: 1620473

Supervised By: Mohammad Noor Nabi

Senior Lecturer

Department Of Computer Science and Engineering

Attestation

This report entitled

Online Home Care Service System- IT WORLD

By **Noor Shila Haider**

Has been approved by

The Department of Computer Science and Engineering,

Independent University, Bangladesh

Supervisor: **Mohammad Noor Nabi**

The final copy of this report has been examined by the signatory and I find that both the
content and the form meet acceptable presentation standards of scholarly work in the above
mentioned discipline.

Signed..............................

Date.................................

Declaration of Originality

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at IUB or any other educational institution, except where due acknowledgement is made in the report.

Any contribution made to the research by others, with whom I have worked at IUB or elsewhere, is explicitly acknowledged in the report. I also declare that the intellectual content of this report is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

Signature.............................

 Noor Shila Haider

Acknowledgement

Letter of Transmittal

10th June, 2021

To

Mohammad Noor Nabi

Senior Lecturer

Department of Computer Science and Engineering

Independent University, Bangladesh Bashundhara R/A, Dhaka

Subject: Submission of Internship Report on

Dear Sir,

It is my great pleasure to submit the Internship report entitled "Online Home Care Service System "at IT World for the completion of the course CEN499 on the semester Autumn 2020 as a requirement of Undergraduate program of B.Sc. In Computer Engineering. I have concentrated my best effort to achieve the objectives of the report and hope that my endeavour will serve the purpose. While preparing this report, I have tried my level best to follow your instructions and include all the relevant issues of my internship program. Working for three months in IT World was inspiring and a great learning experience for me. I hope this knowledge will facilitate me a lot in my future career.

I would really be grateful if you enlighten me with your thoughts and views regarding the report. Also, if you wish to enquire about an aspect of my report, I would gladly answer your queries. Thank you again for your support and patience.

Sincerely yours,

Noor Shila Haider

ID: 1620473

Evaluation Committee

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Signature

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Name

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Supervisor

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Signature

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Internal Examiner

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External Examiner

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Convener

Abstract

This report was described us to investigate and relate different functional, operational and technical requirements of a dedicated website for online home care services which name is 'Galaxy Home Care LLC' for **IT World**. This System will facilitate the functioning of web-based home care services of a healthcare company in USA. Basically this website is only for the old citizen of USA. The purpose of this system is to develop a website for the people who can contact and hire home carer along with their requirements. . A user can search a carer or physician he/she wants to hire according to their need. The project has been planned to be having the view of distributed architecture, with centralized storage of the database. Using the constructs of MY-SQL Server and all the user interfaces have been designed using the HTML, CSS, PHP, JQUERY, JAVASCRIPT, and BOOTSTRAP. The database connectivity is planned using the "SQL Connection" methodology. The standards of security and data protective mechanism have been given a big choice for proper usage.

Letter of Endorsement

To Whom It May Concern

Subject: Approval of the report.

This letter is to certify that all the information mentioned in this document is true and confidential for the company. The project mentioned here has been successfully done with the involvement of Noor Shila Haider, 1620473, Bachelor in Computer Engineering, Independent University, Bangladesh (IUB).
 I wish him all the best and hope he will lead a successful career.

Internship Supervisor
Sign…………………...
Eng. Parvez Ahmed (CEO)
IT WORLD.

Table of Contents

Chapter 1

Introduction

The main objective of the web application Home Care Service System requires home care services; for those old citizens who are not able to do their own household works and do not take care of their self. It is an online system through which customers can view available services, register, log in, contact for getting the services. This application can take information from the customers by filling their details. The proposed system is completely integrated online systems. It automates the manual procedure in an effective and efficient way. The purpose of this system is to develop a website for the people who can get emergency healthcare, nursing, ambulances and vehicle booking, housekeeping, monthly health check-up services also. A user can search a carer anytime when he/she wants to hire according to their needs. This most reliable service system for old citizen those who needs extra care only through a text.

Overview of this Project

There are so many senior citizen around the whole New York City in USA who are live alone or without their family members or relatives. Most of them are not able to do their own household works and do not capable to take care of their self. They need support to go on outsides of their house for shopping, taking for healthcare services. In this case, they need extra care and support. By this application they can solve their all problems through filling up a contact form. Then the service centre will contact them by their address and phone number which they provided. By this application they can get professional, personalised care in the privacy and comfort of their own residence.

Objectives

- To develop a web based system.
- User friendly for every user.
- Provide solutions for customers/users 24/7
- Minimize time & cost.

Scopes

- Development of Web App and implementation.
- Working & updating back-end code
- Generate new ideas for online services.
- Learned how to work with a professional team
- Team management and collaboration
- Research based work.

Chapter 2

Company Profile

2.1 Company Background

IT World is an IT consulting and software development company in Bangladesh concentrating in customized ERP application and web-based solutions. IT WORLD is founded by Eng. Parves Ahmmed. IT World offers elevated business automation with professional services of outstanding quality. IT WORLD provide 24/7 Domain & web hosting solutions all over the world. Web Develop Business Software for Bank, Govt. office, Private office, Media and Radio sector, Mobile Company, Real Estate Sector, Hospital & Clinic Multipurpose Company and also made shoppers website for publishing their product. IT WORLD do every kind of IT work. This company is Bangladeshi by origin but international in terms of quality, commitment and professionalism standards. They have lots of experience and Top class programmer in their team.

2.2 Mission

IT WORLD provides exciting, game-changing software products to clients around the globe. We believe real innovation stems from implementing relevant high tech solutions to actual business problems.IT WORLD aspire to developing employees who are seen as tech industry thought leaders and who produce leading edge technology.

2.3 Vision

Our vision is to unleash the full potential of the amazing pool of software engineers in Bangladesh by providing world class outsourcing services.

2.4 Address and Contact Information of IT WORLD

 Address: Flat A1, House 21, Block C, Kabi Jasim Uddin Road, North Kamlapur, Motijheel 1217, Dhaka. Telephone: +8801615759783 Email: mail@itworldbd.net Website: www.itworldbd.net

Chapter 3

Literature Review

3.1 Relationship with Undergraduate Studies

We know that, internship is professional training in a safe and structured working environment that encourages the mentor-mentee relationship. A typical internship program assigns interns to a mentor or one of the experts in the field from whom we can learn from. Mentors train and give professional advice to their interns on how to navigate workplace culture in a specific industry. Internships are designed to help develop work habits that will lead to success. It is the practical experience of the courses a student has done in his undergraduate period. My project is directly and indirectly related with few courses I have done. Here I am describing the relation of the project with my undergraduate courses:

Web Applications and Internet (CSE309/CSC454): I have done Web Applications and Internet course under Lecturer Sanzar Adnan Alam . Web application and internet is a basic course for an intern in computer science and engineering student. The project is directly related to the

project. Like other courses I also have done few projects based on web application and internet. Personal Portfolio, Company Website and few other projects helped me a lot in learning web development.

Database Management (CSE303/CEN401/CSC401): I have done Database Management course under Mr. Abu Sayed, Lecturer. This course is a pre requisite course of Web Application Development. I leaned about php, MySQL and XAMPP from this course. Without a basic knowledge in Database Management is not possible to work in a project containing real time data. Entity Relationship Diagram, Rich Picture, Process Diagram, SQL and many other key parts of database management were taught here. These concepts helped me a lot to complete the project. The project is also connected with few other courses. The project is also indirectly related with few courses or topics not described here.

3.2 Related Works

Actually as a junior web developer intern, I had to a survey for a project as client's requirement. In spite of being an intern, I had to do client dealing, email client, and keep updating them about the progress of work etc. as the other employees do.

Chapter 4

4. Project Management and Financing

4.1Work Breakdown Structure (WBS)

The work-breakdown structure in project management and systems engineering, is a deliverable oriented breakdown of a project into smaller components. A work breakdown structure is a key project deliverable that organizes the team's work into manageable sections. A work-breakdown structure element may be a product, data, service, or any combination thereof. A WBS also provides the necessary framework for detailed cost estimating and control along with providing guidance for schedule development and control.
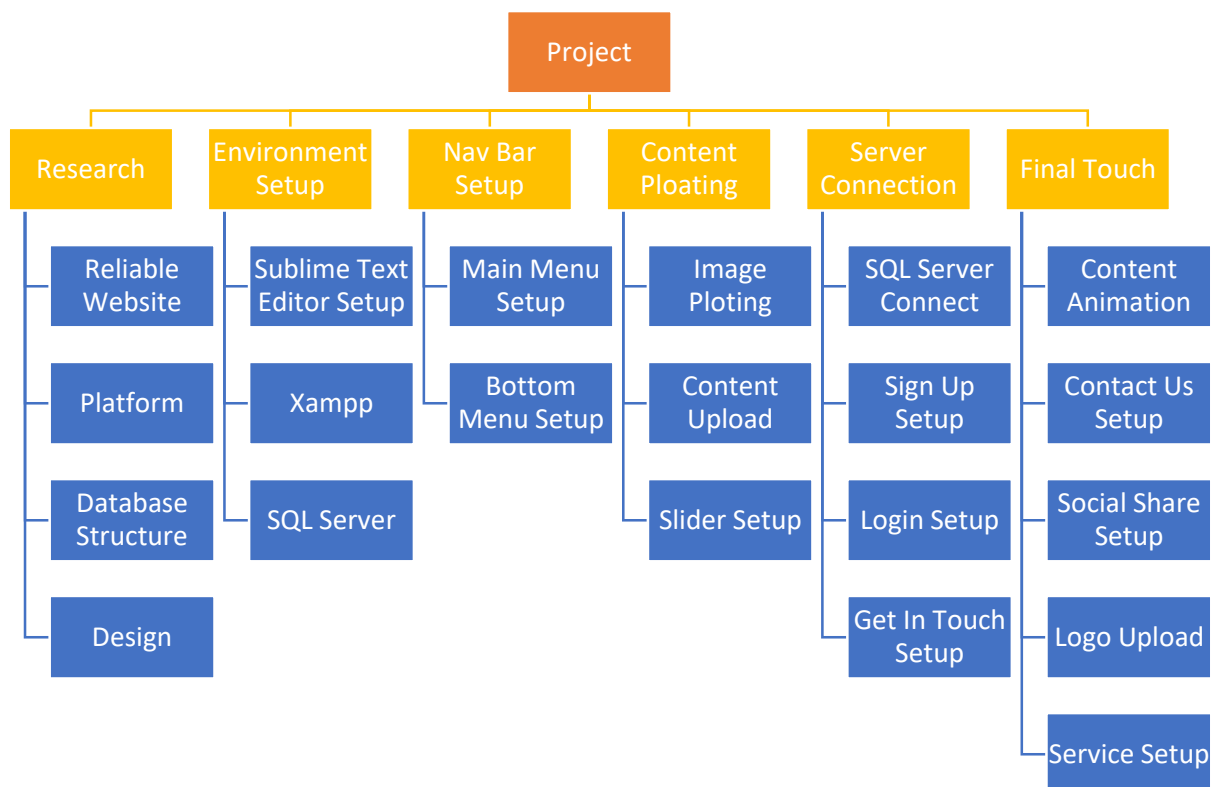
4.2Activity Wise Time Distribution:

Assigning time to the tasks is important for timely completion of the project. This means breaking down the project into different tasks. This can be achieved by creating a to-do list. Next, the tasks should be prioritized according to the importance. Not all the tasks have equal priority. Some of the tasks need to be completed first to avoid project delays. The complex tasks should be performed first while the easier ones should be performed later. Prioritizing takes in this way can result in improved decision making regarding the project. Poor time allocation can lead to ineffective decision making and increased stress within the team. This will ultimately lead to failure of the project.

No	Activity	Start Date	End Date
1	Customer Requirement Analysis	18.10.2020	20.10.2020
2	Work Breakdown Structure	25.10.2020	25.10.2020
3	Designing	26.10.2020	28.10.2020
4	Implementation	02.11.2020	03.11.2020
5	Testing	04.11.2020	04.11.2020
6	Project Submission	05.11.2020	05.11.2020

Table no 4.2: Activity wise time distribution

4.3 Gantt chart

Activity	18.10.20	25.1020	26.10.20	02.11.20	4.11.20	05.11.20
Customer Requirement Analysis	██					
Work Breakdown Structure		██				
Designing		██	██			
Implementation			██	██		
Testing					██	
Project Submission						██

Table no 4.3: Gantt chart

4.4 Process Activity Wise Resource Allocation

Resource allocation is the process of assigning and scheduling available resources in the most effective and economical manner. Projects will always need resources and resources are scarce. The task therefore lies with the project manager to determine the proper timing of those resources within the project schedule. Resource management is prone to several challenges that developer needs to be aware of to properly allocate resources and manage them throughout the project.
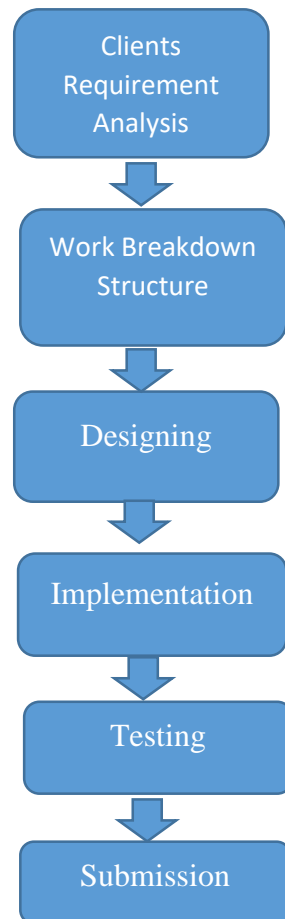
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┌─────────────────┐
│     Clients     │
│   Requirement   │
│     Analysis    │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│  Work Breakdown │
│     Structure   │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│    Designing    │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│  Implementation │
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│     Testing     │
└─────────────────┘
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┌─────────────────┐
│   Submission    │
└─────────────────┘
```

Figure: Process Activity Wise Resource Allocation

4.5 Estimated Costing

Total Website Development Cost (125000BDT)

Purpose	Cost
Analysis	15000 BDT
PSD Template Design	10000 BDT
Domain	1000 BDT
Hosting Server	5000 BDT
Logo Design	5000 BDT
Graphical Content Design	15000 BDT
Development	50000 BDT
Maintenance 2 months	24000 BDT

Table 4.5: Estimated Costing

Chapter 5

5. Methodology

Every software development methodology framework acts as a basis for applying specific approaches to develop and maintain software. Several software development approaches have been used since the origin of information technology. We choose agile process as methodology for this project.

Agile development consists of iterations. This means, the website owner receives a viable piece of website at the end of each iteration. First it's the design of the future product then is launched the development, where the product receives new features and gets tested, iteration by iteration. Besides, the software owner can track the progress of development by receiving timely reports. Furthermore, this allows the owner to shape the picture of the app by giving feedback and altering requirements. Requirements to develop a software tend to change. Vision

and strategy change. Users may demand new features or pay less attention to other "useless" features. These requirements may vary from insignificant ones to those which require rewriting quite a bulk of code. Agile method adds more room for change/improvement. As agile developer, we can keep track of the altering/improving the website.
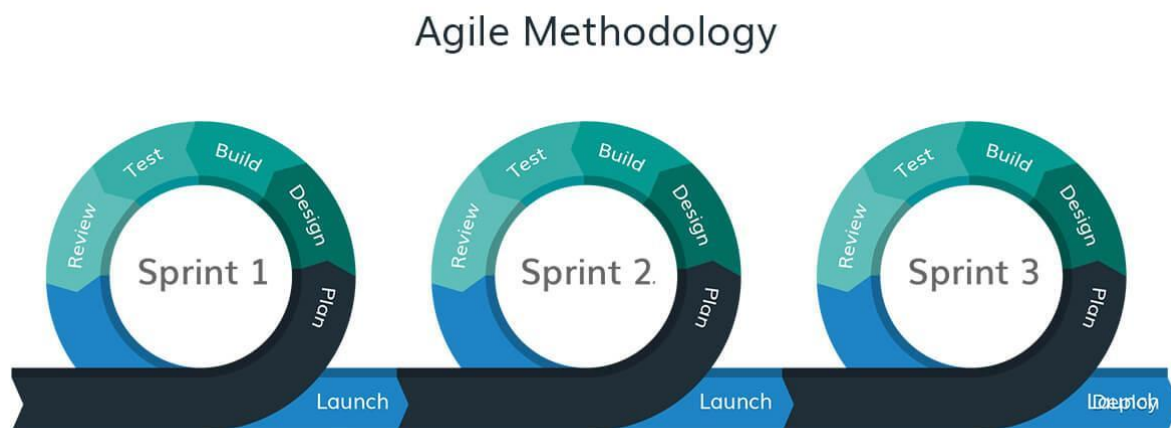

Figure: Agile methodology

Chapter 6

6. Body of the Project

6.1 Work description

This project is a home care services web application system. It is an online system through which customers can view available services, register, log in, contact for getting the services. This application can take information from the customers by filling their

details. The proposed system is completely integrated online systems. It automates the manual procedure in an effective and efficient way. The purpose of this system is to develop a website for the people who can get emergency healthcare, nursing, ambulances and vehicle booking, housekeeping, monthly health check-up services also. A user can search a carer anytime when he/she wants to hire according to their needs. This most reliable service system for old citizen those who needs extra care only through a text. This web application is made by using css, html, php, Bootstrap, basic JavaScript and My SQL database server.

6.2 System Analysis

Analysis can be defined as breaking up of any whole so as to find out their nature, function etc. It defines design as to make preliminary sketches of, to sketch a pattern or outline for plan. To plan and carry out especially by artistic arrangement or in a skilful wall. System analysis and design can be characterized as a set of techniques and processes, a community of interests, a culture and an intellectual orientation. The various tasks in the system analysis include the following. Understanding application. Planning. Scheduling. Developing candidate solution. Performing trade studies. Performing cost benefit analysis. Recommending alternative solutions.

6.3 Feasibility analysis

Feasibility analysis is the process of confirming that a strategy, plan or design is possible and makes sense. This can be used to validate assumptions, constraints, decisions, approaches and business cases. The importance of a feasibility study is based on organizational desire to "get it right" before committing resources, time, or budget. A feasibility study might uncover new ideas that could completely change a project's scope. It's best to make these determinations in advance, rather than to jump in and to learn that the project won't work. Conducting a

feasibility study is always beneficial to the project as it gives you and other stakeholders a clear picture of the proposed project.

Here are some key benefits of conducting a feasibility study:

• Improves project teams' focus, feasibility analysis makes a project well planned and helps to focus on important parts.

• Provides valuable information for a "go/no-go" decision, by feasibility analysis, we have called about where we should work and where we should not.

• Feasibility analysis narrows the business alternatives.

• Identifies a valid reason to undertake the project,

• Enhances the success rate by evaluating multiple parameters.

• Aids decision-making on the project

• Identifies reasons not to proceed Apart from the approaches to feasibility study listed above, some projects also require other constraints to be analysed

• Internal Project Constraints: Technical, Technology, Budget, Resource, etc.

• Internal Corporate Constraints: Financial, Marketing, Export, etc.

• External Constraints: Logistics, Environment, Laws, and Regulations, etc.

Figure: Fesibility analysis

6.4 System Design:
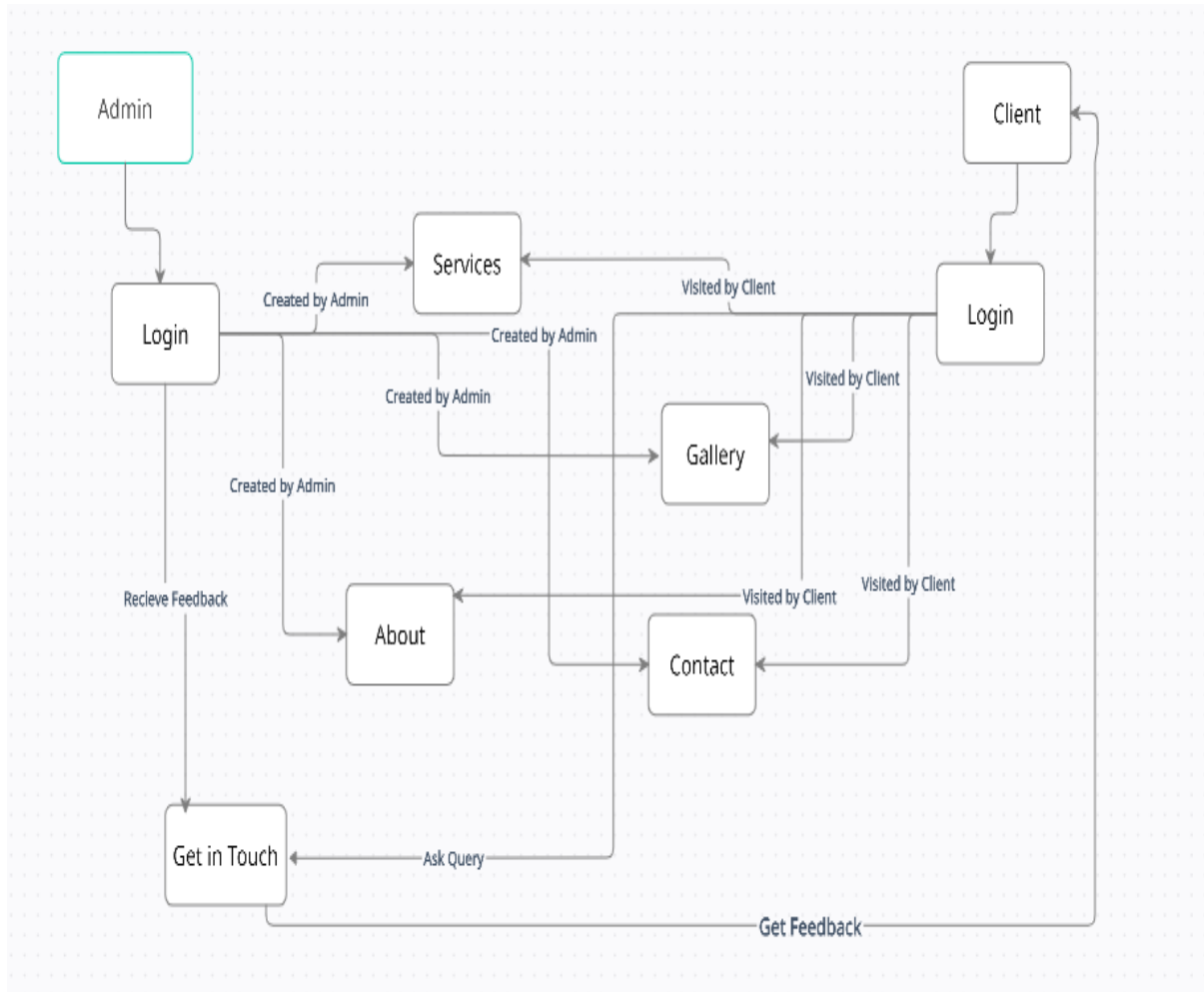
Figure. Data Flow Diagram

6.5 Six Element Analysis

Process	Human	Non Computing Hardware	Computing Hardware	Software	Database	Network and Communication
Visit Website	All users	N/A	Pc, Laptop, Smartphone and Tabs	All browsers	MySQL	WAN
Login	All users	N/A	Pc, Laptop, Smartphone and Tabs	All browsers	MySQL	WAN
Register	All users	N/A	Pc, Laptop, Smartphone and Tabs	All browsers	MySQL	WAN
Contact	All users	N/A	Pc, Laptop, Smartphone and Tabs	All browsers	MySQL	WAN
Get In Touch	All users	N/A	Pc, Laptop, Smartphone and Tabs	All browsers	MySQL	WAN
Admin Panel	Users who have access	N/A	Pc, Laptop, Smartphone and Tabs	All browsers	MySQL	WAN

Table 6.5: Six Element Analysis

6.6 Rich Picture
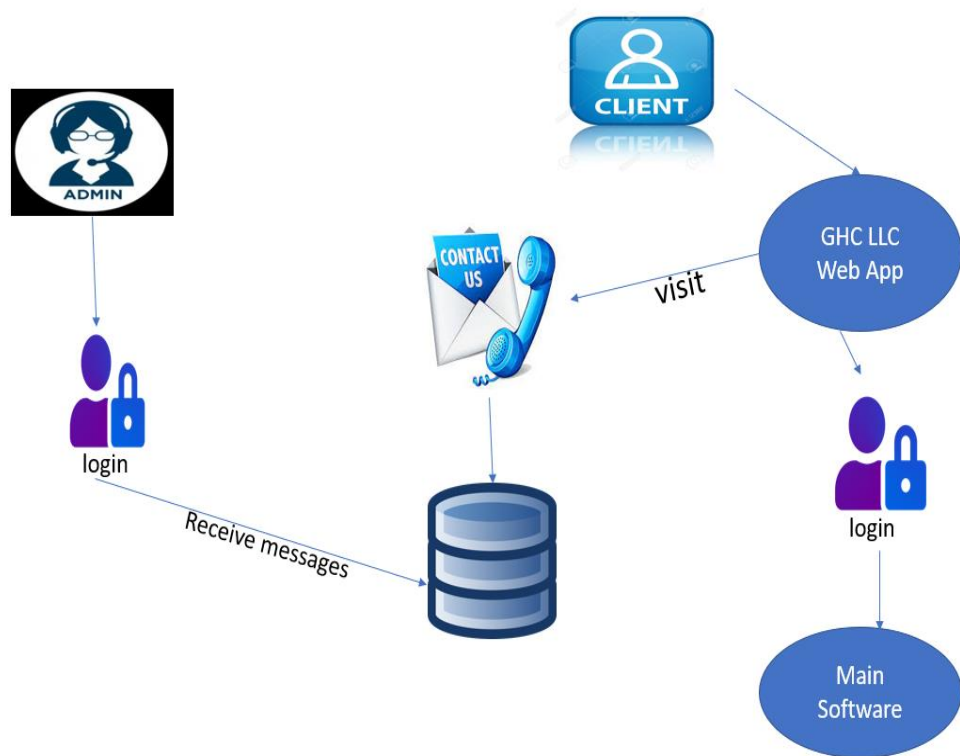
Figure: Rich Picture

6.7 UML Diagram
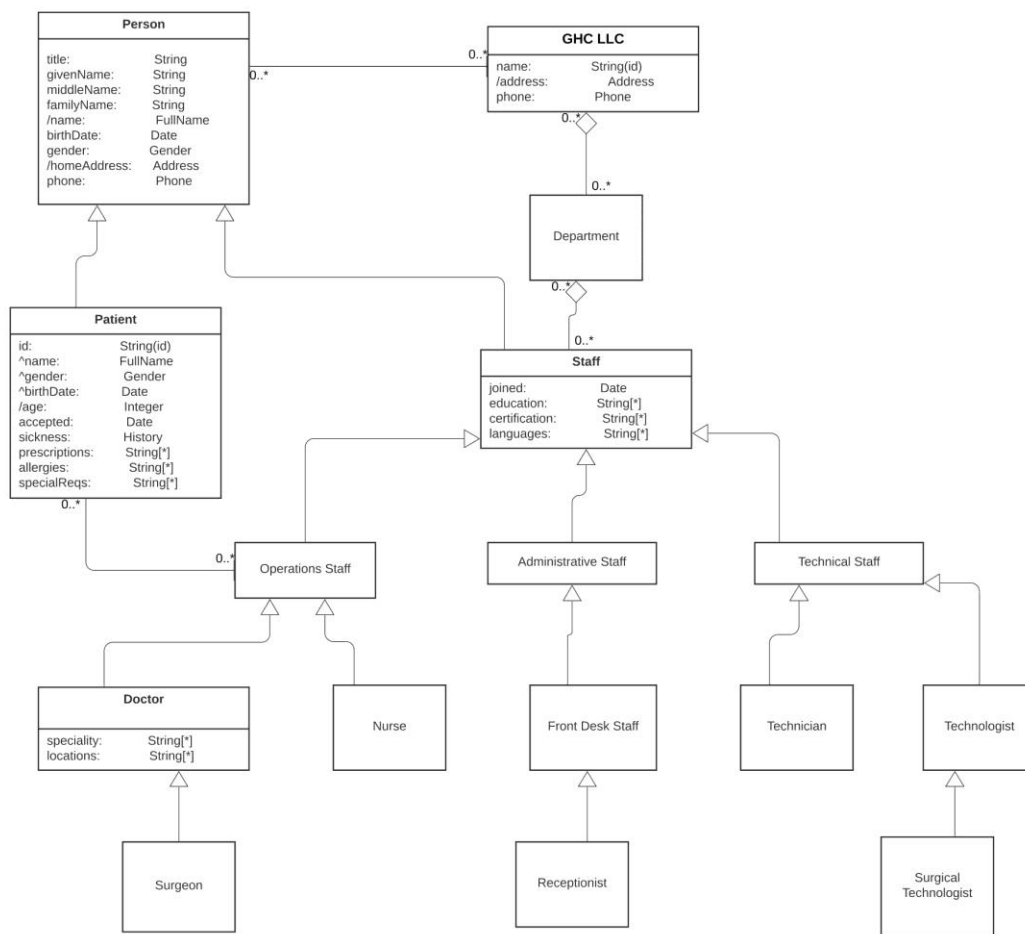
Figure: UML diagram

6.7 Functional and Non- Functional Requirements

A functional requirement is a function or feature that must be included in an information system in order to satisfy the business need and be acceptable to the users. A functional requirement defines what an application & its component are and what these components are supposed to accomplish. The following functional requirements were gathered with our decided requirements gathering methods. This part has done in our website development department.

6.8 Products Features

- ❖ Log in
- ❖ Registration
- ❖ Get in touch
- ❖ Service Details
- ❖ Gallery
- ❖ Contact Form

6.9 Input & Output

This web site will work to help the elderly. This system is featured so that they can communicate very easily. When the client logs in here, it will directly enter another software and the main activities will be done there. Again, when the client fills in the contact form and gives a message, it will be stored in the database. And through that the GCH LLC's authority will be able to call the client and talk about the services. The password will be always encrypted whenever the client logs in. The admin will never see the client's password from database.

7. Result and Analysis

All functionality worked successfully. After final testing from the quality management team of IT World it has given to the company for user acceptance test. GHC LLC's representative tests the web app and provide their feedback. According their feedback action is taken and produce a final deliverable product. Another development team of IT World is still working with the main software of this project which will be linked up with this website very soon.

8. Problem and Solution Analysis

This system has nothing but if this system can reach the users it will definitely bring benefits. On the other hand benefits will come depending on the uses.

- Internet: As this system will require stable internet connection once it is launched. So during vising this site no internet may cause problems to the users.
- Load shedding: If anyone uses desktop and wifi-routers then load shedding may create problems while using this system.

Solutions: While there is a problem, there is a solution also. Now I am going to discuss about the solutions of the problems mentioned above –

- Solution to the internet problem: Nowadays internet data is not so costly that we cannot afford that. Our system will not consume a lot of data as well.
- Load shedding solution: As this system can be run from laptop and mobile that do not require continuous electricity connection so users can use them very easily.

9. Future Work

The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. Another software development team of IT World is still working on another automation software of Galaxy Home Care LLC which will be connected very soon with this website. Then the users of this site will get the automatic systematic services by this site. After login through their id password they will enter the main software and also will buy the services and they will be able to payment online.

10. Recommendation

This is a web-based project, so before using this system user should able to understand some basic things that needed for using this system. This will help to use this system use easier and interactive.

So, some recommendations are listed below:

1. This is web-based project. Before using this system, user should understand using internet.

2. User should able to know using browsers.

3. Before use this system, user should check their device internet connections.

4. User should able to know how to login to the system.

5. User doesn't have to be an IT guy but should have some knowledge about software and it uses.

11. Conclusion

This internship has been an excellent and rewarding experience. I have been able to meet and network with so many people that I am sure will be able to help me with opportunities in the future. One main thing that I have learned through this internship is time management skills as well as self-motivation. I can honestly say that my time spent interning with IT WORLD was very good. Not only did I gain practical skills but I also had the opportunity to meet many fantastic people. The atmosphere at the office was always welcoming which made me feel right at home. Additionally, I felt like I was able to contribute to the company by assisting and working on projects. This internship has shown and provided me a wonderful opportunity to acquire various technological skills. Though it will take more time to master those skills, at this moment I am confident to apply those in any of my projects.

References

1. Accessify - Web accessibility tools and resources. 2021. *Access itworldbd.org. Account Suspended*. [online] Available at: <https://www.accessify.com/i/itworldbd.org> [Accessed 27 April 2021].

2. Google.com. 2021. *agile methodology - Google Search*. [online] Available at: <https://www.google.com/search?q=agile+methodology&tbm=isch&ved=2ahUKEwiP3-bgy5vwAhVegNgFHdpIDwQQ2-> [Accessed 27 April2021]

3. En.wikipedia.org. 2021. *Work breakdown structure - Wikipedia*. [online] Available at: <https://en.wikipedia.org/wiki/Work_breakdown_structure> [Accessed 27 April 2021].

4. 2021. [online] Available at: <https://scholar.google.com/> [Accessed 27 April 2021].

5. 2021. [online] Available at: <https://scholar.google.com/> [Accessed 27 April 2021].

6. Google.com. 2021. *agile methodology - Google Search*. [online] Available at: <https://www.google.com/search?q=agile+methodology&tbm=isch&ved=2ahUKEwiP3-bgy5vwAhVegNgFHdpIDwQQ2-> [Accessed 27 April 2021].

7. 2021. [online] Available at: <https://scholar.google.com/> [Accessed 27 April 2021].

   Home Care Assistance. 2021. *8 Health Benefits of Socialization*. [online] Available at: <https://homecareassistance.com/blog/health-benefits-of-socialization> [Accessed 27 April 2021].
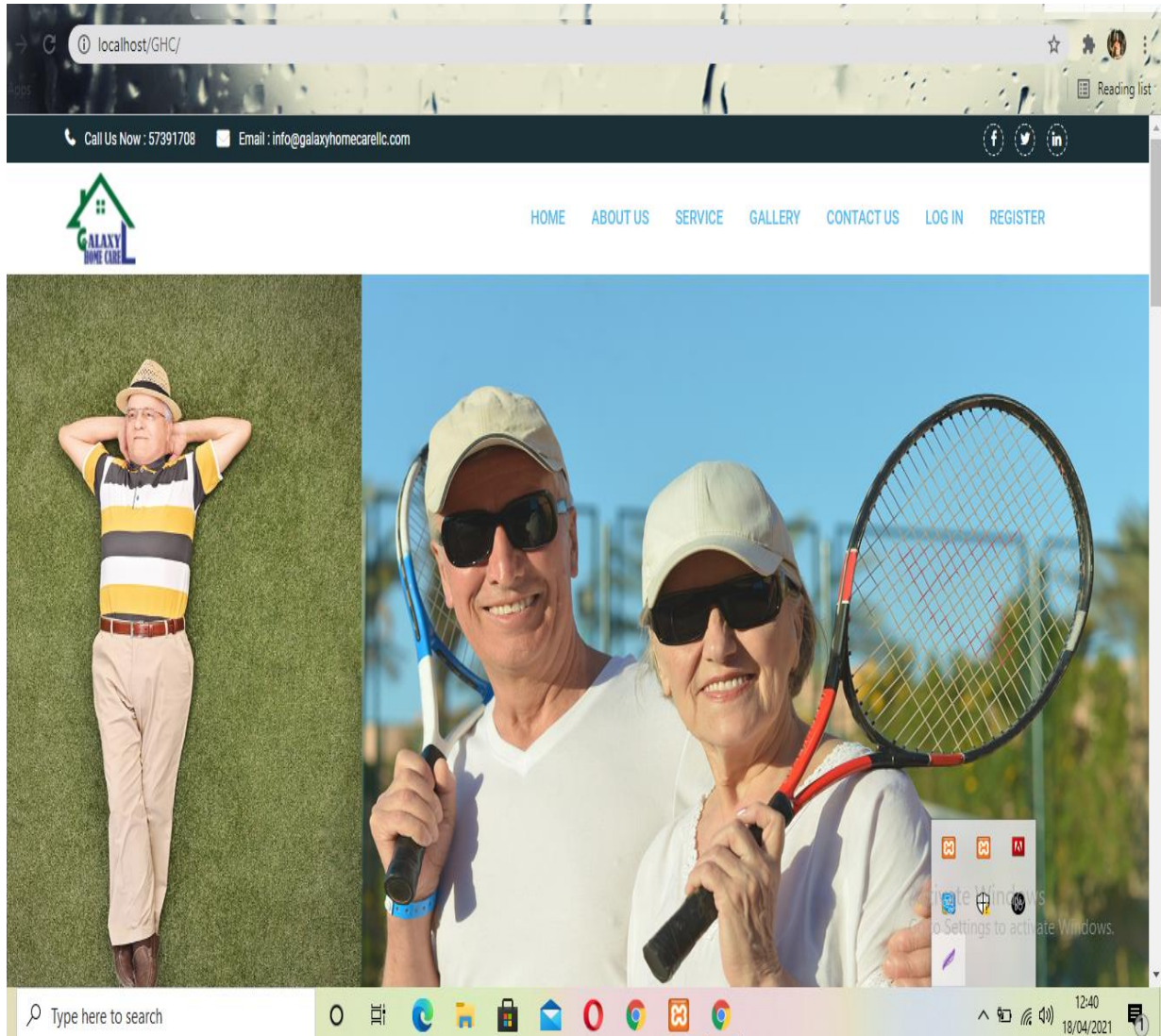
Appendix: Screenshot of this project
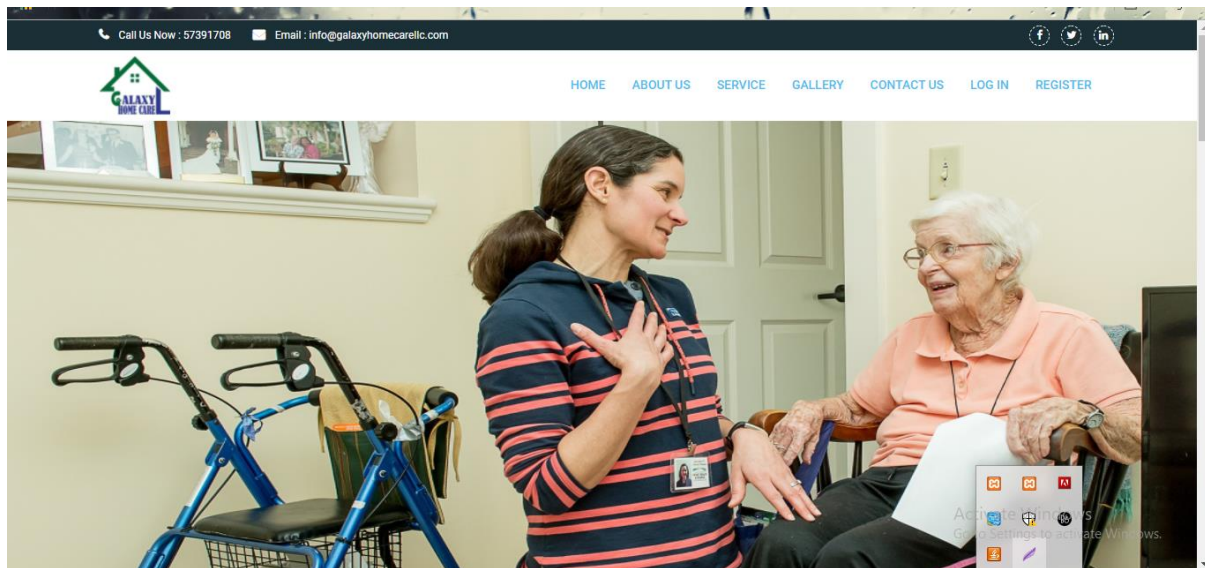

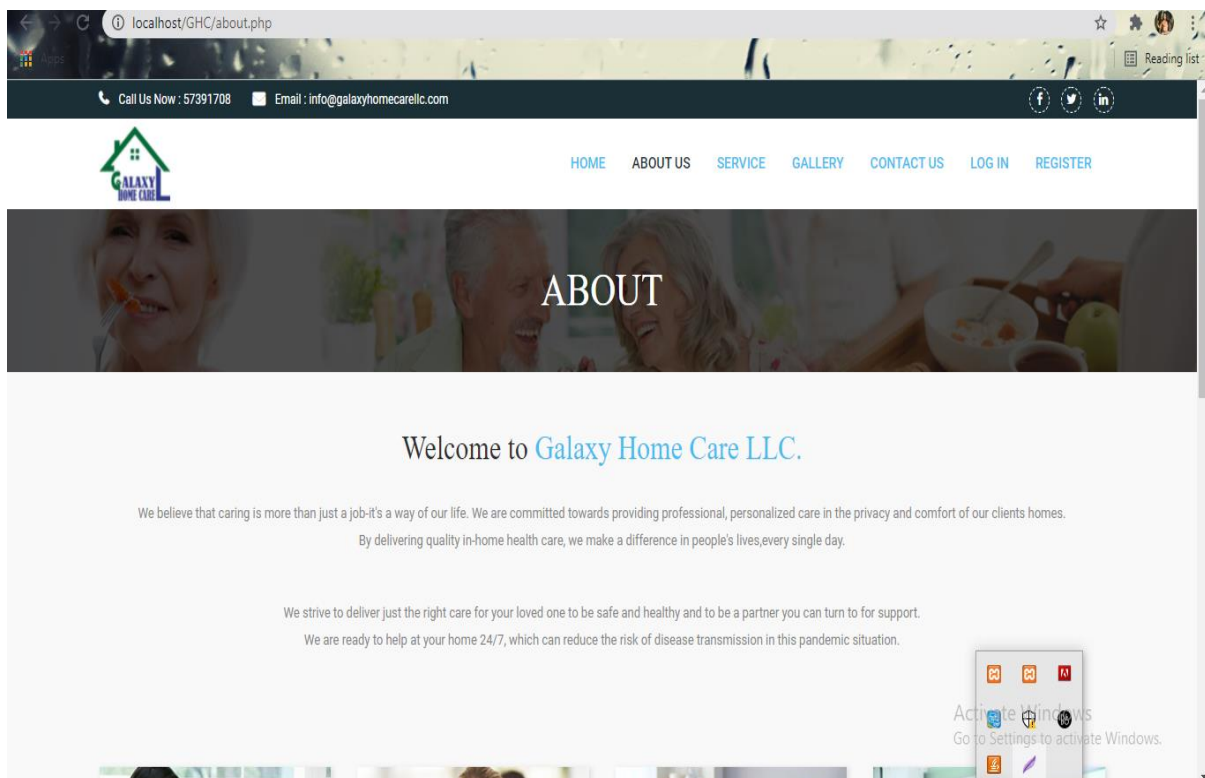Figure: Website's Home page view

Figure: Website's home page view 2

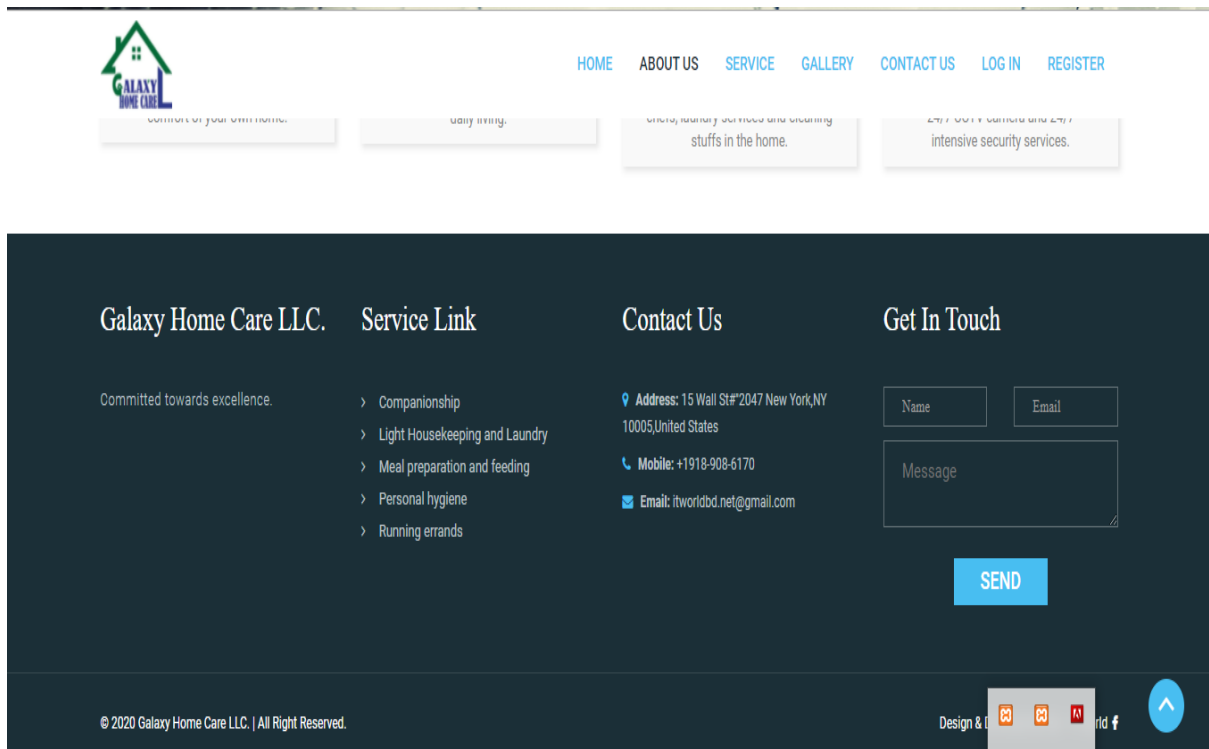

Figure: About GHC LLC

Figure: Services

Figure: Get In Touch
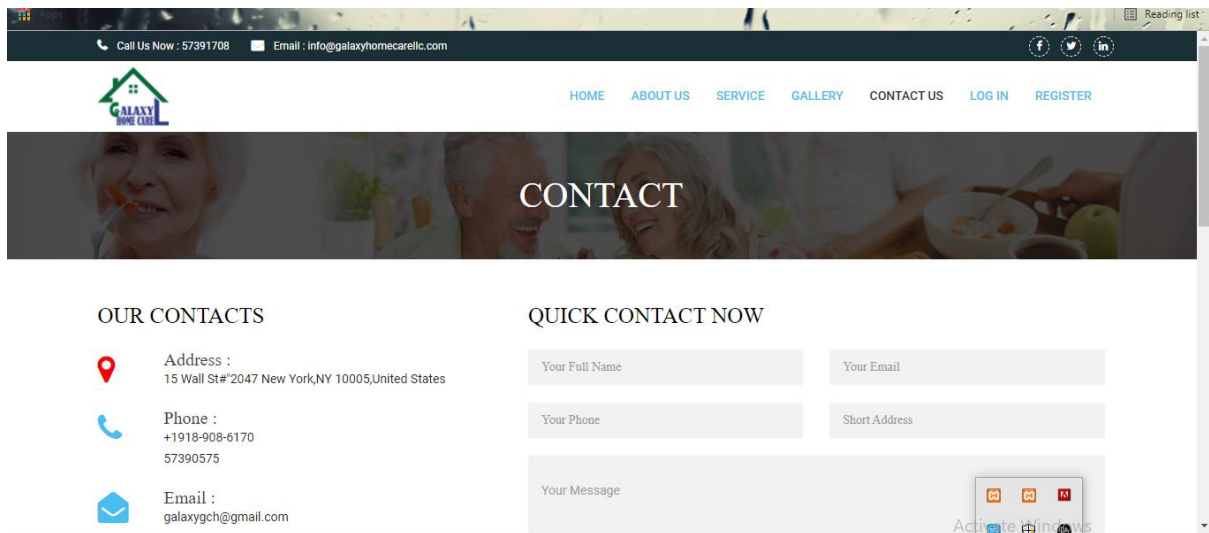
Figure: Contact Form

Figure: GHC Database
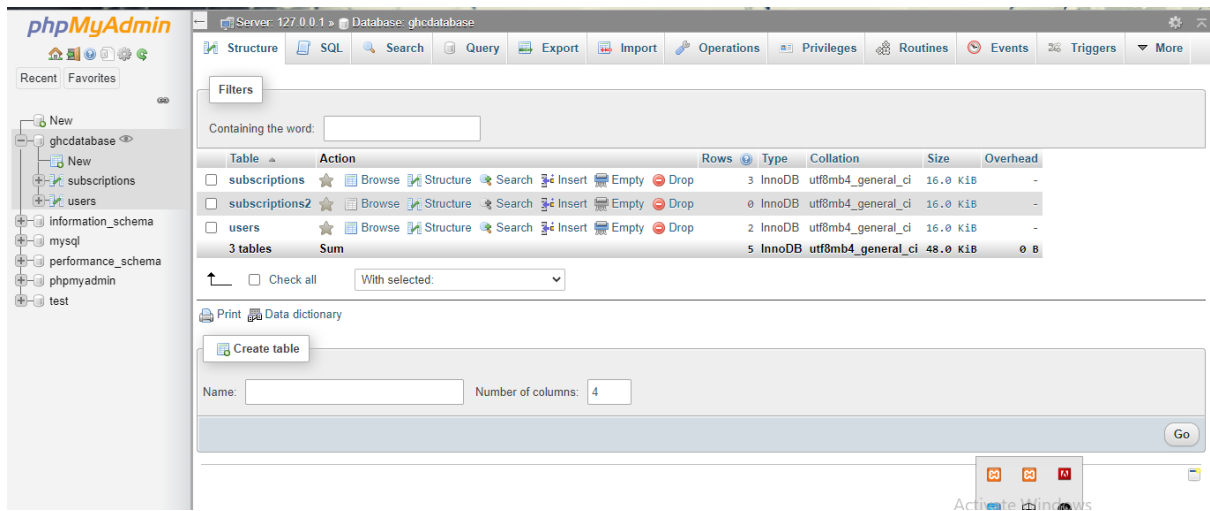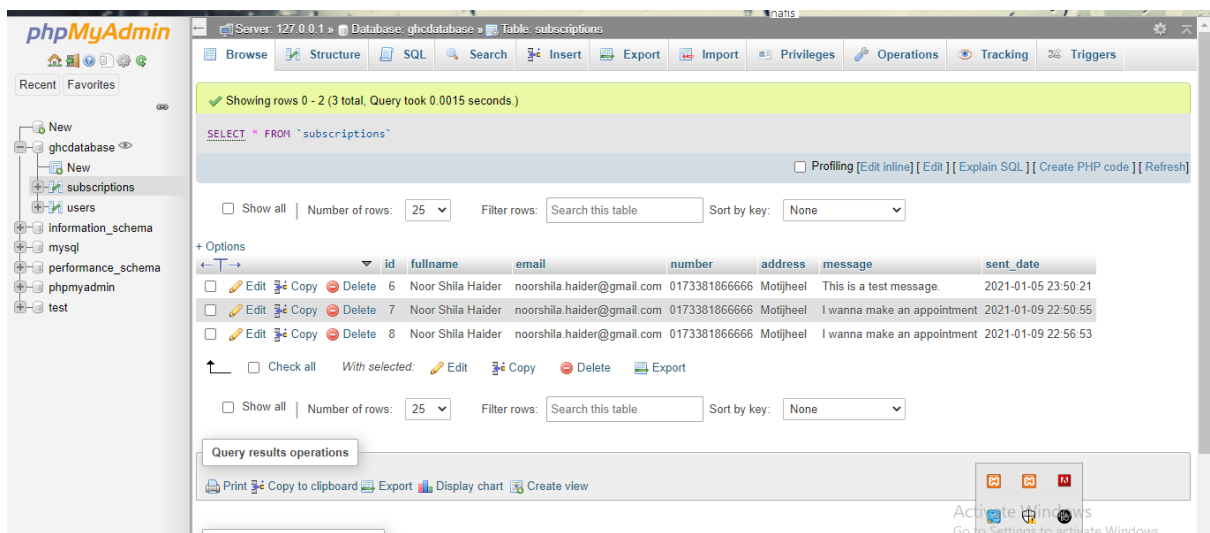

Figure: GHC Database

Figure: Log In form

Figure: Registration Form of GHC