ONLINE OXYGEN MANAGEMENT SYSTEM

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

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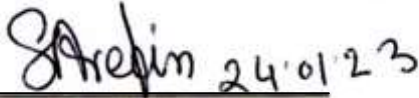
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APPROVAL

This Project titled "**Online Oxygen Management System**", submitted by "Juni Chakma" "Shayon Kumar Basak" and "Khondaker Akib Ishtiakh" to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 24th January 2023.

<u>BOARD OF EXAMINERS</u>

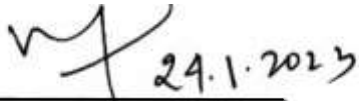|	
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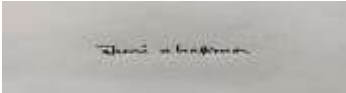East West University
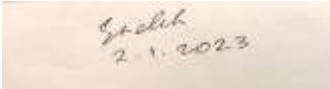
DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Md. Sadekur Rahman, Assistant Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.
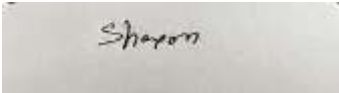
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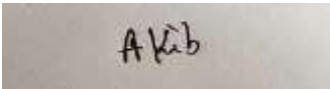Daffodil International University

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We really grateful and wish our profound our indebtedness to **Md. Sadekur Rahman**, **Assistant Professor**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "*Online Oxygen Management System*" to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this project.

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Finally, we must acknowledge with due respect the constant support and patience of our parents.

ABSTRACT

The Second wave of COVID'19 Coronavirus has brought a human unseen condition for demand on Oxygen Supply in all over the world and especially in Bangladesh. Due to the unavailability of a proper channel of getting Oxygen, made people to find the supply of oxygen through phone calls, sms, Whatsapp message, posting through facebook, twitter and so many social medias. But only few got the right suppliers and many could not get their demand satisfied at the right time. Even hospitals faced the same situation. To combat such problems, in this project we propose a unique system for Online Oxygen Management System which can effectively meet the crisis situation in an effective way. To combat the crisis of oxygen shortage in the face of the raging Covid-19 wave, this proposed system is launched as a digital platform to fast-pace the supply chain to both people and hospitals.

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CHAPTER 1
Introduction

1.1 Introduction

Oxygen Cylinder is utilized by sufferers in hospital or in anywhere for existence guide and for scientific treatment. It is important to make sure that the oxygen cylinder deliver device affords a secure and dependable deliver of oxygen to hospital or anywhere and sufferers as give up user. Past pandemic situation indicated that the outcome of gadget failure can be very serious. The consequently crucial is that each fueloline dealer and healthcare centers control recognize the necessities at the layout and set up of clinical oxygen deliver and pipeline providing system. This is mainly not unusualplace in Asia specially in south asia in which the fuel line provider is liable for the layout and set up of scientific deliver however can also additionally or might not be worried within the pipeline distribution system.

1.2 Motivation

Oxygen remedy is broadly used within the control of some of persistent and acute fitness situations which include persistent cystic fibrosis, Asthma, obstructive sleep apnea, coronary heart disease, case principal trauma and anaphylaxia. The remedy can be utilized in a District Level health center or pre-health center setting to control emergency conditions or withinside the domestic placing to control long-time period fitness conditions. In this covid19 situation the oxygen therapy is more vital to us. From that's kind of problem we generated an idea to launch this technology to help people and serve the peoples as soon as possible.

1.3 Objective

In the COVID'19 situation we have seen how emergence it was. It has been back a human unseen condition how much demand for Oxygen Supply in all over the world and especially in Bangladesh. Due to the accessibility of a right time of having Oxygen, create human beings to deliver the supply Of oxygen cylinder through telecalls, smartphone calls, sms, Whatsapp, posting through facebook, twitter,other social media and such a lot of social medias. But handiest few were given the proper providers and lots of couldn't get

their call for glad on the proper time. Even hospitals confronted the identical environment. To fight the such kind of problems, on this undertaking we recommend a completely unique gadget for Oxygen supply Management System which can practically meet the crisis situation in an effective way. To fight the disaster of oxygen scarcity withinside the face of the raising of Covid-19 wave, this proposed system is launched as a digital platform to immediate the supply oxygen cylinder to both people and hospitals.

1.4 Expected Outcome

❖ Oxygen supply management system provides a unique system and timely supply of oxygen cylinder and tools.

❖ It Prevents the demise instances because of Oxygen deliver call for or unavailability.

❖ Who desires a top level view of oxygen wishes and oxygen supply alternatives throughout to any place in Bangladesh.

❖ The needy can capable of touch the provider at once in case of emergency or in pressing urgent situations.

1.5 Project Management And Finance

The main important thing in the system is oxygen supplier can do business to sell the oxygen cylinder. After Oxygen supplier log in the system they sell to the user or hospital authority. In this way they could do a great business using this system and it is very efficient for them. In this way oxygen supplier will be benefited. But we proposing a system where we take 10% of oxygen supplier profit.

1.6 Report Layout

In the chapter 1 we have discussed the introduction whereas introduction, motivation, objective, expected outcomes, project management, and finance.

In the chapter 2 there are background included introduction, related work, comparative analysis, scope of the problems and challenges. In chapter 2 we have discussed the related work same as our project, the problems and challenges of selected work.

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In the chapter3 requirement specification included business process modeling, requirement collection and analysis, use case modeling and description, logical data model, design requirement. We have shown diagram of our project in this chapter 3.

Chapter4 there are design specification frontend design, backend design, interaction design, User experience, and implementation requirements.

Chapter5 Implementation and testing implementation and database, implementation of frontend design, testing implementation, test result, and report.

In the Chapter6 Impact of society there are environment and sustainability, impact of society, impact on environmental, ethical aspect, sustainability plan.

In the Chapter7 there are Conclusion and future scope discussion and conclusion scope for the further development.

CHAPTER 2

Background

2.1 Introduction

Patients in healthcare settings utilize medical oxygen for the life aid and health conduct. This is critical that the oxygen cylinder supply management system ensures a protected and consistent supply of oxygen cylinder to medical care institutions and patient as end users. Previous experience suggested that the consequences of system fail may Be severe. As a result, it is critical that both gas suppliers and healthcare facility management understand the requirements for oxygen cylinder supply and equipment distribution system design and installation. This is especially typical in Indian subcontinent gas provider is liable for oxygen supply design and installation but may or may not be engaged in the equipment providing system.

2.2 Related Works

There are many works as our project. I choose two work from the internet. There are given life nursing care and marium oxygen. We have selected these two works which is same as our project. In the life nursing care they have been selling oxygen and other equipment. They also serving other facilities like home care where nurse can serve the old people and different patience. Selected two is marium oxygen. This intitative goal also selling the oxygen cylinder and the other medical equipment to the peoples who need it emergency times. In our project we have shown the system where we serve the oxygen to the peoples or hospitals. Most important thing is that oxygen supplier update their equivalent oxygen cylinder where they can update the oxygen purity, the numbers of oxygen cylinders, quantity, quality. On the other hand users or hospital orders the oxygen by their chosen oxygen supplier. So as well as in these selected two related work has been accomplished same as our project. We have found relevant work and executed the ideas.

2.2.1 Life Nursing Care

Life Nursing Care Services has been imparting fine personal responsibility nursing offerings to Dhaka Bangladesh on account that 2015. Our intention is to make sure your family are furnished with the very best nice domestic fitness care. Are you searching out professional nurses to take care of your family's aged mother and father or unwell cherished ones? Life nursing care is supplied via way of means of skilled nurses and caregivers at domestic service. Now to get domestic nursing offerings at domestic, Life Nursing Care is at your side. Life Nursing Care Services has been supplying pleasant non-public obligation nursing offerings to Dhaka Bangladesh when you consider that 2015.

Features:

- ❖ Covid19 patient care at home
- ❖ Elderly care at home
- ❖ Nursing care at home
- ❖ Care giver support at home
- ❖ Medical equipment and service
- ❖ Oxygen cylinder home delivery

Figure 2.1: Life Nursing Care Home Page

Figure 2.2: Covid19 patient care

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Figure 2.3: Elderly Care
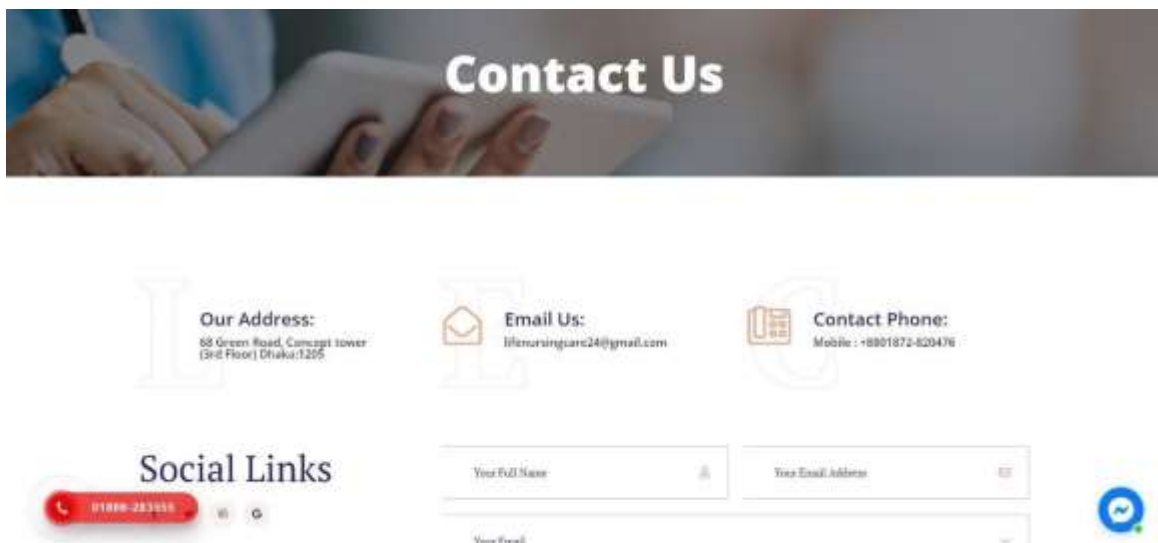
Figure 2.4: Life Nursing care Contact list

2.2.2 Marium Oxygen

We are significant and user friendly offer scientific oxygen cylinder service. Our scientific oxygen cylinders are of excessive quality. Which builds a worrying dating with the user. By accepting our Oxygen Services. Get recommendation on the usage of oxygen cylinders via way of means of families, in particular educated people. When our servants go to the patient's home, they degree the extent of oxygen of their frame and growth or lower the extent of oxygen. And they offer Oxygen Cylinder Home Delivery provider seven days per week for the desires of the patient. And our employer affords specially big clinical oxygen offerings for sufferers inflamed with the coronavirus. In this case, we region greater significance at the intellectual and bodily fitness of the patient.

Features:

- ❖ User-friendly
- ❖ Safe and simple
- ❖ Oxygen concentrator
- ❖ Medical equipment delivery fast

Figure 2.5 Marium oxygen Home Page
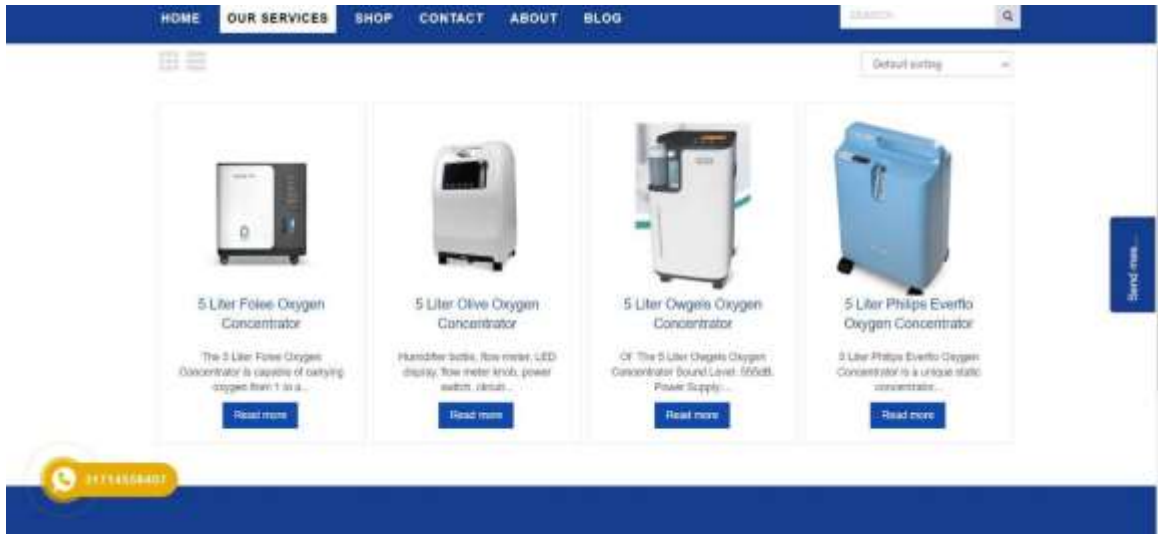
Figure 2.6 Marium oxygen concentrator
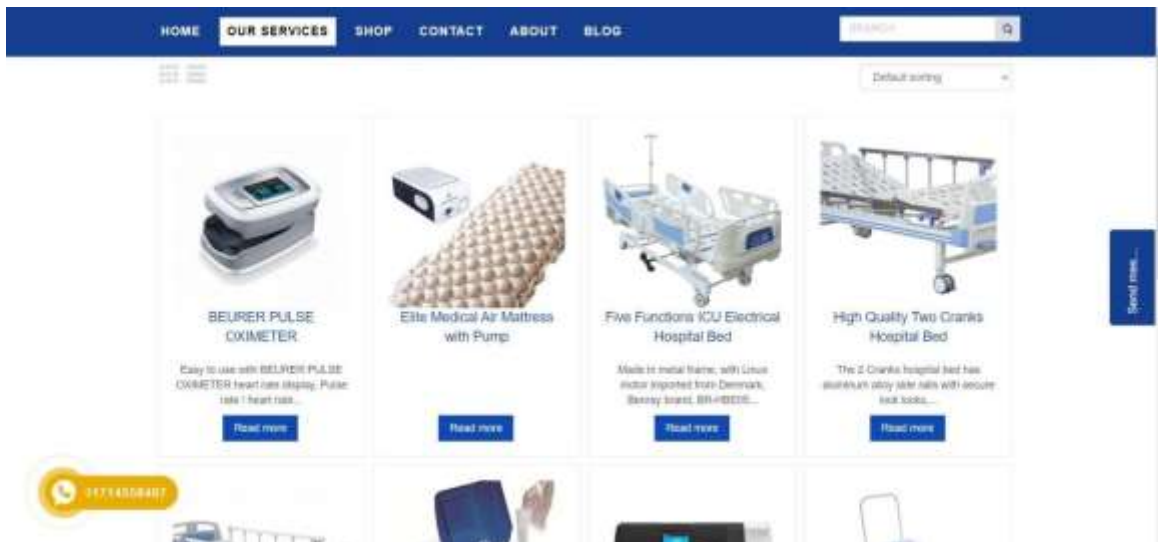
Figure 2.7 Marium oxygen medical equipment

2.3 Comparative Analysis

There are two type of use in the website one is administrator and one is customer. Each of them have to log in with their email and password. Each of them get benefited by the system, Therese are:

- ❖ Authentication system.
- ❖ Using friendly system.
- ❖ Unlimited login.
- ❖ Add or remove the user.

2.4 Scope of the problem

- ❖ Equipment management problem.
- ❖ High costing.
- ❖ Limited boundaries of the system.
- ❖ Delivering product not timely.

2.5 Challenges

Some challenge already we have faced that doing the unknown things. But we learned from while doing the project and execute. We faced some challenge are:

- ❖ Creating a user pleasant platform through the individual work.
- ❖ Building the secure database.
- ❖ Fixed the Code of bugs.

CHAPTER 3

Requirement Specification

3.1 Business Process Modeling:

Business process model shows that how the business and system architecture depicts in the way. In the business process model is the consist of different diagram. There are included like activity diagram, Bubble chart diagram, use case diagram and so on diferrent visual concept of many architecture. We have included activity diagram to show the how our system work has been executed.

3.1.1 Activity Diagram:

Activity diagrams are graphical representations of workflows of stepwise activities by-step workflows of components in a system. An activity diagram shows the overall flow of control. In the diagram we have shown how the user, hospital and oxygen supplier system has been updated. System of the user is after log into the system view oxygen cylinder, oxygen cylinder details enter needed quantity and order oxygen cylinder. System of the hospital is same as well as the user system. Oxygen supplier system is after login into the system enter oxygen cylinder details, add stocks, update quantity, approve user/ hospital orders. In the activity diagram that we depicts how the our system work and executing the particular concept.

Figure 3.1: Activity Diagram

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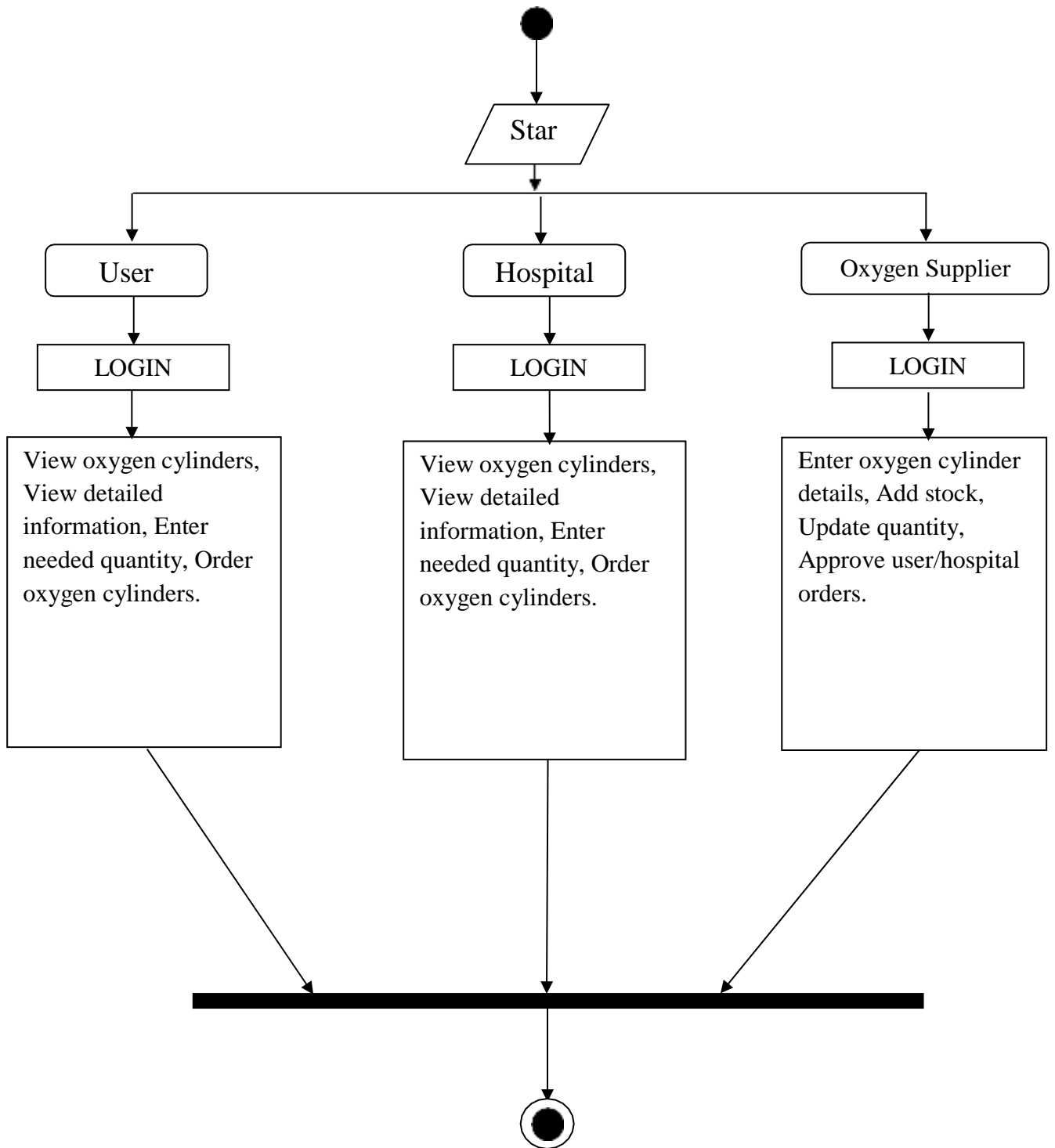
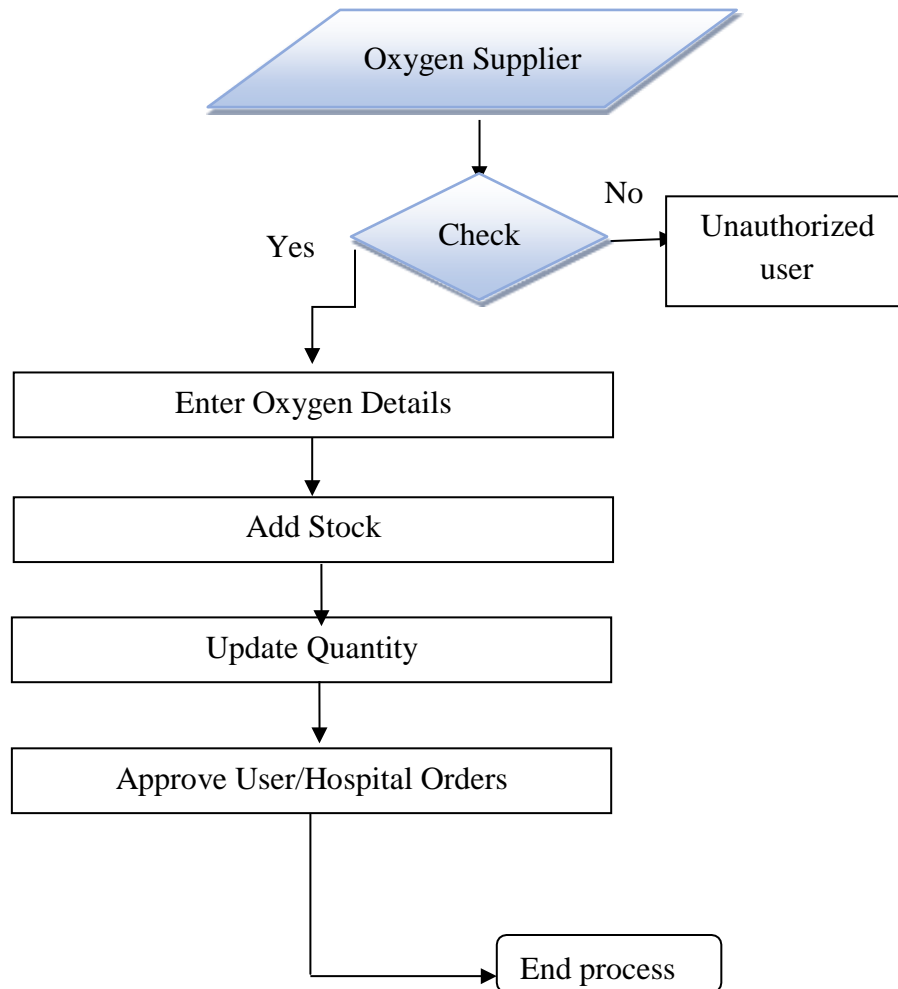**3.2 Flowchart of The System:**

3.2.1 Oxygen Supplier:

Figure 3.2: Oxygen supplier login

In this diagram have shown that if the oxygen supplier registered into the system, they can access the system and log into the system after log into the system they can enter oxygen details, add stocks, update quantity and approve user/hospital orders.

3.2.2 User:


```
                            ┌──────────────┐
                            │  User Login  │
                            └──────────────┘
                                   │
                                   ▼
                              ◇ Check ◇ ──No──▶ ┌──────────────┐
                   Yes                           │ Unauthorized │
                    │                             │     user     │
                    ▼                             └──────────────┘
            ┌──────────────────────┐
            │ View Oxygen Cylinders│
            └──────────────────────┘
                    │
                    ▼
            ┌──────────────────────┐
            │View Detailed Information│
            └──────────────────────┘
                    │
                    ▼
            ┌──────────────────────┐
            │ Enter Needed Quantity│
            └──────────────────────┘
                    │
                    ▼
            ┌──────────────────────┐
            │ Order Oxygen Cylinders│
            └──────────────────────┘
                    │
                    ▼
            ┌──────────────────────┐
            │Contact Supplier if Needed│
            └──────────────────────┘
                    │
                    ▼
                ( End process )
```
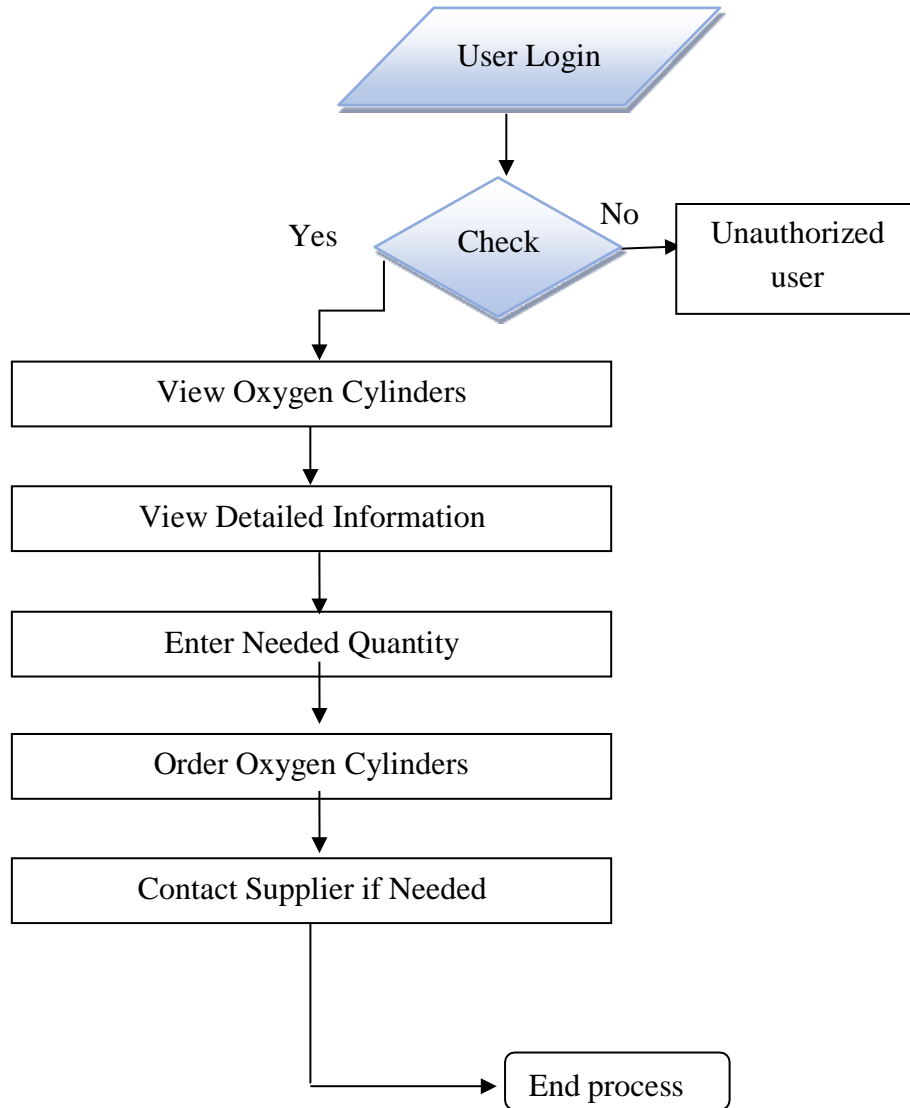
Figure 3.3: User Login

In this diagram have shown that if the user registered into the system they can access the system and log into the system after log into the system they can view oxygen cylinders, view detailed information, enter needed quantity, order oxygen cylinders and contact the supplier if needed.

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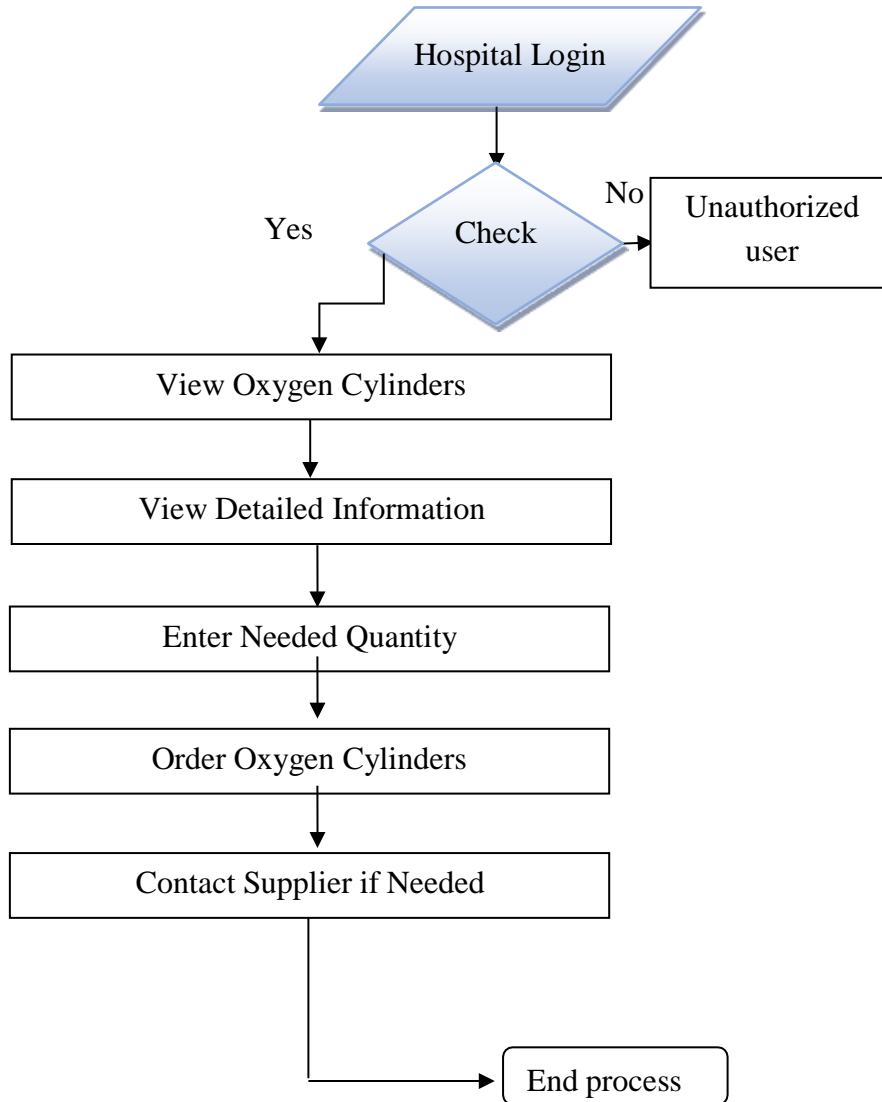
3.2.3 Hospital:

Figure 3.4: Hospital Login

In this diagram have shown that if the hospital registered into the system they can access the system and log into the system after log into the system they can view oxygen cylinders, view detailed information, enter needed quantity, order oxygen cylinder and contact the supplier if needed that is the process of the system.

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3.3 Requirement Collection and Analysis:

Requirements evaluation additionally referred to as necessities engineering, is the system of figuring out person expectancies for a new updated product. These update feature of new product, the requirement of the product is quantifiable, detailed and the relevant. These reuirement are the functional requirement in software engineering. Requirements research and analysis is an important aspect of system management. In order to resolve any dispute or ambiguity in requirements as requested by different users, minimize feature creep, and record every step of the development project process from beginning to end, requirements analysis requires regular communication with system users to ascertain precise feature expectations.

3.4 Use Case Modeling and Description:

A use case diagram inside the Unified Modeling Language is a type of behavioral diagram that is explained and invented utilizing a Use-case analysis. Its purpose as well as provide a graphical assessment of the capacity provided by applying a machine in the contexts of actors, their goals, and any relationships among the use cases. The main focus of a use case diagram is to show which gadget characteristics are realized for particular filed. The roles of the field within the machine might be portrayed.
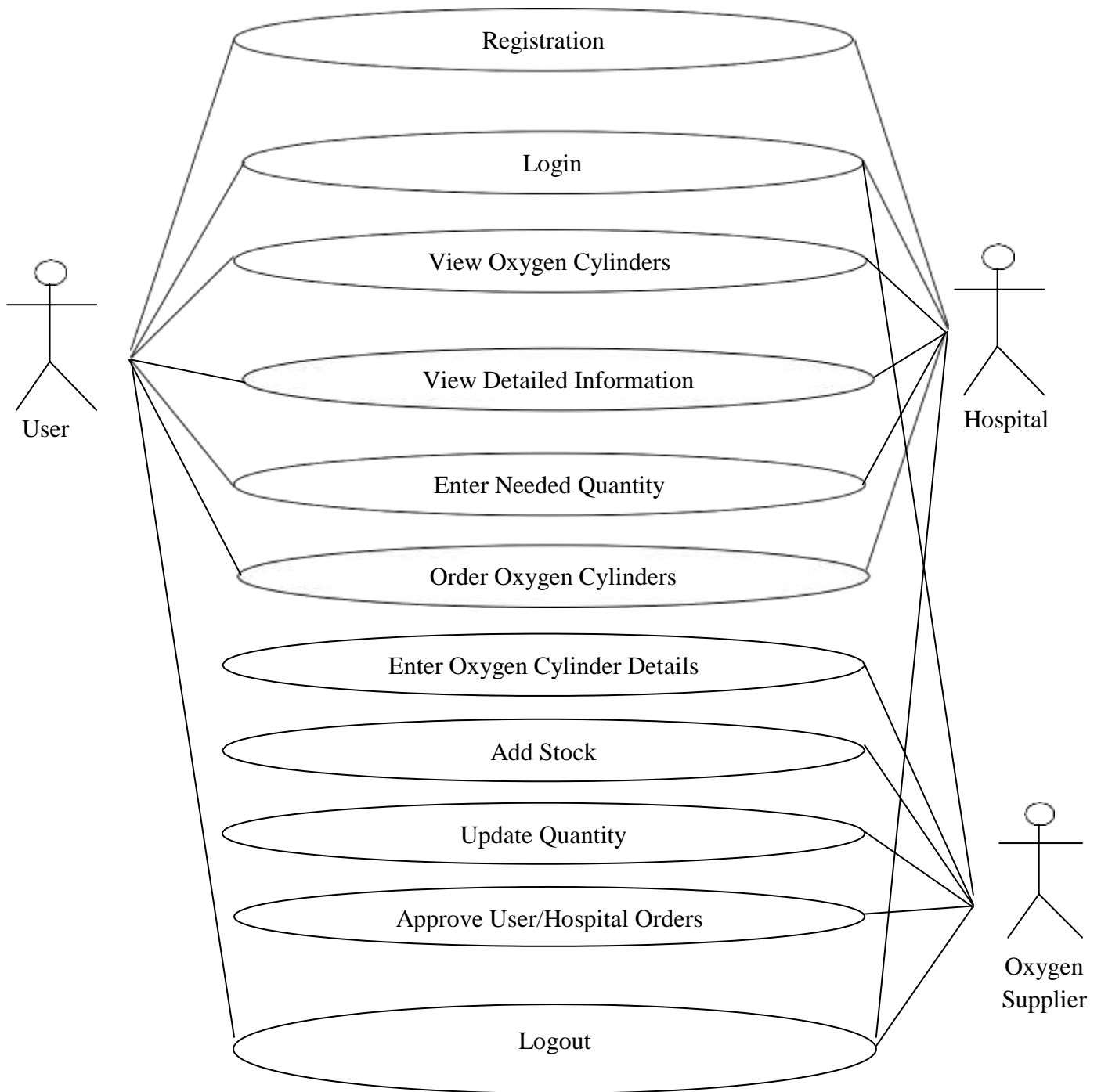
Fig3.5: Use Case Model Diagram

In this use case model diagram has presented the system process of how the user/hospital/oxygen supplier registration and login into the system. The user and the hospital can view the oxygen cylinder after the login and can order an oxygen cylinder. On the other hand, oxygen suppliers enter oxygen supplier details, add stock, update quantity, approve user/hospital orders and then log out.

3.5 Logical Data Model:

The logical information version is a version that isn't unique to a database system that outlines the topics on which an agency wants to collect data, as well as the links between those topics. A logical version contains upholding of entities and attributes, relationships, particular identifiers, subtypes and supertypes, and restrictions among relationships. A logical version can also comprise area version objects or relate to one or more area or thesaurus models. After describing logical items and relationships in a logical records model, you may utilize the workbench to turn the logical model into a database-precise physical depiction inside the shape of a bodily records model.

3.6 Design Requirement:

Our system adheres to a completely dynamic web-based application. In this system, we have employed web programming languages such as HTML, CSS, Java Script, and Java for the backend. For the database server, we utilize MYSQL. The project is mostly concerned with the spring framework and the bootstrap framework.

Efficient: This website has very good efficient for using and serving any product for use. This platform give any slightly task where user and supplier wants for.

User-friendly: It's easy to use even non-friendly technology user also finds it easy.

users. The layouts are all beautifully modified and ascending things is excellent.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-End Design:

Frontend design include writing the HTML, CSS, javascript, and bootstrap framework code that comprise a user interface. The image below depicts our project page, which was created using HTML, CSS and Bootstrap.

Figure 4.1: User Home Page

In the figure 4.1 here is the User Home Page of our project where user could log in.

Figure 4.2: Hospital Login Page

In the 4.2 figure is the hospital login page of our project where hospital authority could log in.

Figure 4.3: Oxygen Supplier Login Page

In the 4.3 figure is the oxygen supplier page of our project where oxygen supplier could log in.

Figure 4.4: User Registration

In the 4.4 figure is the user registration page of our project where user could registration.

Figure 4.5: User Home Page

In the 4.5 figure is the user home page of our project where user would face after log in.
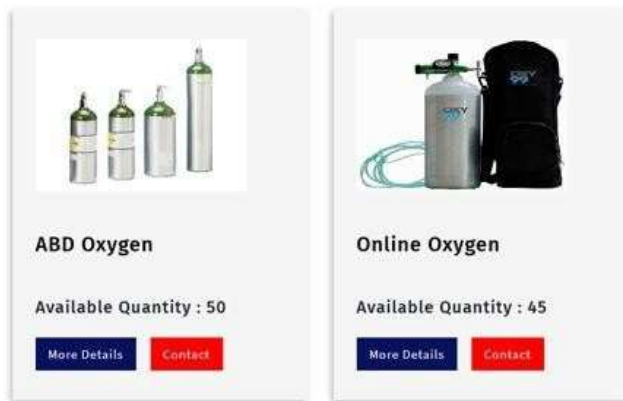
Figure 4.6: User View Oxygen Cylinder

In the 4.6 figure is the user page of our project where user could view the oxygen cylinder.

Figure 4.7: User Order List

In the 4.7 figure is the user order list of our project where user can see their order list.

Figure 4.8: Oxygen Cylinder Order

In the 4.8 figure is the user page of our project where user order the oxygen cylinder.

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Figure 4.9: Oxygen Supplier Homepage

In the 4.9 figure is the oxygen supplier home page after log in.

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Figure 4.9.1: Oxygen Cylinder Details

In the 4.9.1 figure is the oxygen supplier update their oxygen cylinder.

Figure 4.9.2: Oxygen Supplier User Order List

Available Quantity Of Oxygen Cylinder:

Figure 4.9.3: Available Quantity Of Oxygen Cylinder

4.2 Back-End Design:

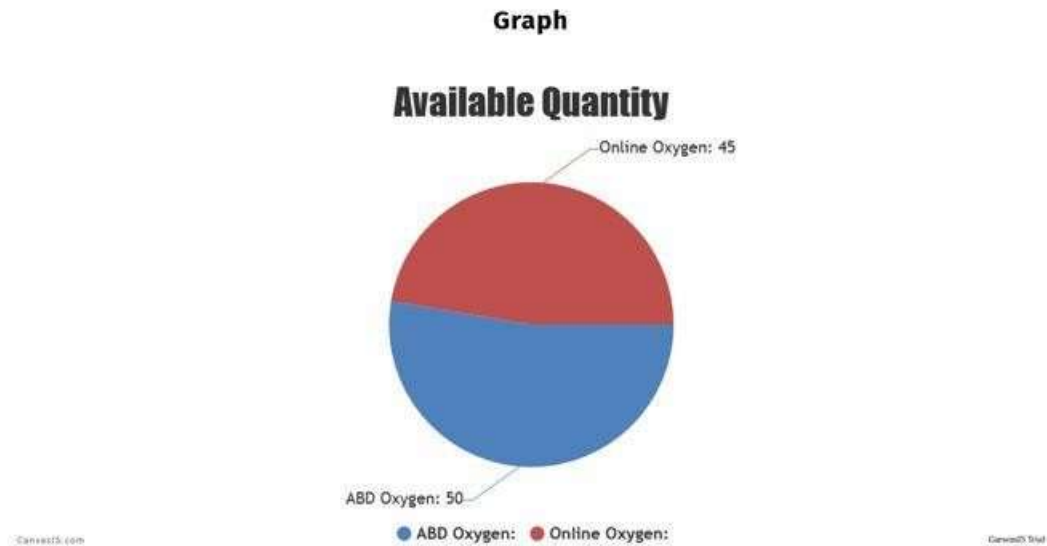The back-end design, our project employs Java programming language. One of the most widely used programming languages worldwide is Java. We use it as a backend development tool since it is incredibly practical and effective. Using the Java programming language, we created many packages of our backdrop design for different users. When people sign up for our application, we also employ a real-time Firebase database. There are various characteristics in this project. Users and administrators can both easily utilize this software.

4.3 Interaction Design and User Experience (UX)

Everybody needs interface design their laptops and tablets these days. The use of interaction design makes software more approachable and engaging to users, piquing their interest. Design has to build that it help people satisfy their needs by enabling them to accomplish their purpose in the most sufficient way possible. The process of watching how a system interacts with its users is known as the interaction design process. User experience, on the contrary, attention on the overall interaction and experience between hospital/user and an website. The goal of interaction design is to accurately observe how a system interacts with its user and to ascertain how that interaction might be enhanced.

4.4 Implementation Requirements:

To finish the designs and create the entire project and make them a reality, this project will need to use netbeans or visual studio code. We also required setting the system of a browser and a new google users on the database for the backend. For the testing, our project will require the NDK, the JDK, and the SDK. As a result, in order to execute the apps on the device, it could be required to run and test them on a virtual device on the PC. For various projects, different sorts of icons and backdrops are frequently created using visual studio code. Additionally, to upgrade Netbeans, we required a robust internet connection.

HARDWARE REQUIREMENTS:

- ❖ System : Intel core i3 7th generation
- ❖ Hard Dusk : 140GB.
- ❖ Floppy Drive : 2Mega Byte.
- ❖ Screen : 16 HD Color.
- ❖ Mouse : Walton.
- ❖ Ram : 1GB.

SOFTWARE REQUIREMENTS:

- ❖ Operating system : Windows 7/11.
- ❖ Coding Language : JAVA/Javascript/J2EE.
- ❖ Data Base : MYSQL Query Browser.

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Chapter 5

Implementation and Testing

5.1 Implementation of Database:

We utilize JDVC, which is a java database connection produced by an independent datab ase standard API for Java. Java Database Connectivity or JDVC created by sun microsysytem. It is honored SQL database access technique that contains a constant interf ace to a wide range of RDBMSs. If a database vendor wants JDBC support, he or she mu st provide the driving force for each platform on database and Java execute. We thought t hat the major purpose of our database was to develop a SQL interface for Java. Although it is no longer the lowest database interface degree available, it is at a low adequate degre e for higher degree hardware.

5.2 Implementation of Front-End Design

First of all frontend part, We have used HTML, CSS and BOOTSTRAP and a little bit of java script for dynamic. In the frontend design system, we kept three section user, hospital and oxygen supplier. In these way we design the sytem and implemented it.

5.2.1 User

In the system firstly user have to registration and login. After successfully registration and log in if they want to order the oxygen cylinder they can order the order the cylinder from the certain oxygen supplier. They also view the order of oxygen cylinder and message to the oxygen supplier.

5.2.2 Hospital

Hospital authorities also have to register and log in for order the oxygen cylinder from the oxygen supplier. Same as the user they also got the order and order as how much they need the cylinder as well. They could also message to the oxygen supplier for any emergency.

5.2.3 Oxygen Supplier

For selling the oxygen cylinder oxygen supplier have to registered and logged in. After log in oxygen supplier update the cylinder like oxygen quantity, purity, oxygen cylinder figure, how big is oxygen cylinder is and the price. They can view the user/hospital order and check the message as well. Then if they approved use will see it then deliver the product as well.

5.3 Testing Implementation

There are several testing implementations such as integrated testing, functional testing, system testing, black box, and white box testing.Integration tests are intended to test incorporated software program additions to see whether they truly run as one program. Testing is event-driven and is more concerned with the first outcomes of displays or fields. Integration evaluations show that, despite the fact that the additives were for my part satisfaction, as demonstrated by correctly unit testing, the total of additives is accurate and sequentially. During the functional examination, Functional tests give systematic proof that the functionalities evaluated are available as distinct via corporate and technical requirements, device documentation, and user guides.

Invalid Input: Recognized invalid enter lessons should be refused.

Functions: Recognized characteristics should be used.

Output: Recognized utility output training should be practiced.

Interfacing structures or techniques must be invoked via systems/procedures.

System testing verifies that the accurate software system as a whole fits the criteria etc.

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It evaluates a setup to ensure recognized and the outcomes. The configuration oriented system integration test is a form of system testing. White Box testing is a type of testing in the software program tester is aware of internal working, design, and language of the software, or at the very least its goal. Black Box testing is the process of testing a software program out of knowing anything about its internal working, shape, or language era.

5.4 Test Result and Reports

There are some in unit testing. Verify that the entries are in the right format before allowing unauthorized access. All hyperlinks must direct the user to the correct page. All of the above-mentioned test cases succeeded successfully during integration testing. There were no flaws discovered. And then there's the acceptability testing. All of the above-mentioned test scenarios were successful. There were no flaws discovered.

CHAPTER 6

IMPACT ON SOCIETY

6.1 Impact on Society:

In the second wave of covid19 we have seen the critical moment of the situation in the worldwide. There are millions of peoples died by covid19. Most of the peoples are lack of oxygen mask and oxygen cylinder. In India we have seen the situation how it was critical moment for us. From that's view the situation we have generate the idea the online oxygen management sytem it will be easy to supply the oxygen cylinder as soon as possible. Even in critical time this system has to compulse deliver in the emergency situation. This is not even in city boundaries even in rural are. In the subdistrict where there is internet and mobile network it is available to that particular area. Ongoing clinical or supplying medical equipment or oxygen cylinder development means, amongst different things, higher remedy options, longer existence expectancy and progressed nice of existence in spite of present illnesses. Improving, restoring and retaining fitness additionally has a social and financial impact. For example, a better nice of lifestyles allows chronically unwell humans to maintain working, to pursue their every day sports and as a consequence to hold their independence. However, those outcomes are frequently now no longer right away obvious and quantifiable. With our analyses, we might consequently want to degree now no longer best the outcomes at the fitness of the individual, however also The social and monetary outcomes of scientific improvements and for this reason highlight a brand new attitude at the importance of scientific progress. Based on tested outcomes of oxygen at the blessings of scientific improvements for a suitable affected person population, we quantified the productiveness and value-introduction capacity attributable to those benefits. Our fashions are primarily based totally on scientific studies, records from affected person surveys, and legitimate facts on employment, productivity, and country wide accounts. In addition to employment, we additionally recall the value-introduction capability due to the outcomes on unpaid work, consisting of housework or nursing activities. In our analyses, we paintings with legitimate statistical strategies and depend on modern-day studies consequences from

fitness economics and medicine. With the "Social Impact of new Innovations", we degree the advantages to society in phrases of health, productiveness and price creation.

6.2 Impact on Environment:

 oxygen is the only method for COVID-19 sufferers to live. Hospitals began seeking for a suitable oxygen cylinder and equipment delivery system to address the pandemic's rise in oxygen demand. Despite the fact that studies on the compact of COVID-19 on a range of parameters, including the global economy and the environment, no research has been conducted on the environmental consequences of oxygen equipment supply to hospitals on the pandemic situation.

In this study, we analyze three local oxygen supply scenarios for hospitals/users. According to the results of the research, the oxygen in tank scenario has the lowest Global Warming Potential and Fine Particulate Matter Formation Potential equipment, which are 250 kg CO_2 equivalent and 0.209 kg PM2.7 equivalent, respectively. The on-site oxygen generation scenario may result in the greatest reductions in terrestrial acidification. According to our findings, the scenario with the liquid oxygen in cylinders had the greatest environmental impact. Of the economic assessment was conducted to compare the operational expenses per month and per year of the scenarios under consideration. According to the research, hospitals suffer the lowest yearly expenditures when using the on-site oxygen generation scenario.

6.3 Ethical Aspect:

Technology evolves swiftly in the Information technology age, and information expansion even faster than anything. It can be difficult for the legal system to keep up with new technical breakthroughs and innovative e-business execution. In the result, the law usually slips behind and politicians end up passing legislation to address problems rather than prevent them. Consider digital file sharing or peer to peer, sometimes referred to as piracy. Before millions of songs has been stolen and the music industry has been decimated, there were no laws against digital piracy. Due to the delay in the law, executives in e-business must rely on ethics as they go forward.

6.4 Sustainability Plan:

Because of this, students from our university who work in the field of web development will be able to contribute to the website and showcase their noteworthy skills because our software will be open source. In the case of a back-end server, our method is inexpensive. It aims to reduce reliance on the back-end server by the web application. As a result, we have faith that our online website applications will last for a very long time.

CHAPTER 7

Conclusion and Future Scope

7.1 Discussion and Conclusion:

The Online Oxygen Management system is basically serving to the people and the other business management system. It would help those where need oxygen at emergencies time. The conclusion indicate the project development.

- ❖ It offers a pleasant person a point where two systems which proves to be higher while in comparison to the present system.
- ❖ The complete device improves proficiency.
- ❖ It offers suitable get right of entry to the legal customers relying on their authentication.
- ❖ Updating of oxygen cylinder becomes so easier for oxygen supplier.
- ❖ This will System safety, facts safety and authenticity are the putting prominence.
- ❖ In the system, this has to be modified and creating in future update in oxygen cylinder management system.

7.2 Scope For Further Development:

- ❖ Oxygen cylinder management system will be effectful for some kind of patient who have asphyxia problem.
- ❖ This system would develop on a medical sector for future.
- ❖ It would have added more feature in future.
- ❖ For any pandemic time in the future it would be a great example for preventing death rate and helping people who need oxygen at emergency times.
- ❖ People would be more beneficial even in rural side peoples will be beneficial by oxygen supply.

REFERENCES

[1] Gartner-Group, "SOBAs Will Revolutionize Application Integration," http://searchwebservices.techtarget.com/originalContent/0,289142,sid26_gci965822,00.html, 2002.

[2] J. Dang and M.N. Huhns, "Coalition Deal Negotiation for Services," Proc. First Int'l Workshop Rational, Robust, and Secure Negotiations in Multi-Agent Systems (RRS '05), p. 67, 2005.

[3] L. Brownsword et al., "System-of-Systems Navigator: An Approach for Managing System-of-Systems Interoperability," Technical Note CMU/SEI-2006-TN-019, http://www.sei.cmu.edu/publications/documents/06.reports/06tn019.html, Oct. 2006.

[4] J. Lee, K. Siau, and S. Hong, "Enterprise Integration with ERP and EAI," Comm. ACM, vol. 46, no. 2, pp. 54-60, 2003.

[5] D. Robey, D.L. Farrow, C. Franz, and R. Franz, "Group Process and Conflict in Systems Development," Management Science, vol. 35, no. 10, pp. 1172-1191, Oct. 1989.

[6] C. Brown and I. Vessey, "Managing the Next Wave of Enterprise Systems: Leveraging Lessons from ERP," MIS Quarterly Executive, vol. 2, no. 1, pp. 65-77, 2003.

[7] M. Hellinger and S. Fingerhut, "Business Activity Monitoring: EAI Meets Data Warehousing," Business Integration J., 2002.

[8] W.N. Robinson, "A Roadmap for Comprehensive Requirements Monitoring," Computer, pp. 64-72, vol. 43, no. 5, May 2010.

[9] D.K. Peters and D.L. Parnas, "Requirements-Based Monitors for Real-Time Systems," IEEE Trans. Software Eng., vol. 28, no. 2, pp. 146-158, Feb. 2002.

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