NYSC INFORMATION SYSTEM ENHANCED WITH SOCIAL NETWORKING

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CERTIFICATION

This project titled, NYSC INFORMATION SYSTEM ENHANCED WITH SOCIAL NETWORKING, prepared and submitted by **ADETILOYE ADEOLU** in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE** (**Computer Science),** is hereby accepted.

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DEDICATION

This project is dedicated to the creator and doer of all things, the Almighty God who has blessed me with strength and wisdom to do this project.

ACKNOLEDGEMENT

ABSTRACT

The NYSC program has being a way for Nigerian youths to mix with other tribes and culture and help with Nigeria's unity and integration development. The youths of the country are expected to go out and socialize to as much as to the best of their abilities. Some of the ways the corp members communicate is through the basic social media platform which most times is not always secure and it's not maximizing the socializing experience as the program was created to. This project was designed to create a platform where corp members can communicate efficiently with each other efficiently and securely. This project was carried out using PHP and MYSQL as the database for the backend to create, implement, test and deploy the platform after thorough research and study. This study creates a web-based platform where registered NYSC members can login, add friends and communicate effortlessly. Some of the limitations of the system is the feature to share pictures as it is not a full social media, thus further improvements could be made on that aspect.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND STUDY

The Nigerian government established the National Youth Service Corps (NYSC) to promote Nigerian society's unity and integration. The scheme is a one-year program in which graduates are assigned to various locations across the country to serve their fatherland with zeal and patriotism. Nigeria does not have military conscription, although graduates of colleges and polytechnics have been compelled to participate in the National Youth Service Corps program since 1973. This is known as national service year. Until 1975, Ahmadu Ali was the NYSC's first Director-General. The incumbent Director-General is Shuaibu Ibrahim.

Newly registered members of the youth service corps are assigned to states different from their home state. They are encouraged to socialize with people from other tribes, as well as people from different social and family origins, in order to learn about the indigenous peoples' culture in the area where they are stationed. They are encouraged to socialize with people from other tribes, as well as people from different social and family origins, in order to learn about the indigenous peoples' culture in the area where they are stationed. The National Youth Service Corps year begins with a three-week orientation program, which all Nigerian graduates called to national service are required to attend. For a huge number of Nigerian youths, the program has also contributed in the establishment of entry-level occupations. An NYSC members' forum was recently formed to bridge the gap between Corp members serving across Nigeria, as well as to provide a place for Corp members to share job information and career resources, as well as apply for loans from the National Directorate of Employment. Corp members receive training (physical and emotional

education) throughout the three weeks of orientation camp to prepare them for the work ahead. There is also a "passing out ceremony," and the primary objectives is followed by a month of vacation.

1.2 STATEMENT OF PROBLEM

The NYSC orientation camp lasts for 21 days, following which the Corp members are assigned to a place of primary assignment (PPA). These undergraduates encounter a variety of problems both before and after their 21 days of camping, including adjusting to a new system where they have no friends or family. Most of the youth corpers go to other platforms to create group chats to be able to communicate, which is not always secure as there could be imposters claiming to be one of the corp members. As a result of these flaws, this project will help to build a new system that will assist in making communication and information sharing easy and secure.

1.3 AIMS AND OBJECTIVES

The main objective of this system is to develop a platform where corpers can communicate efficiently and secure.

The specific Objectives are:

    i.   Identify the user and system requirements of the NYSC information system.

    ii.   Specify the design of the NYSC information system.

    iii.   Incorporate a medium for social interaction among the corp members

    iv.   Implement the system NYSC information system.

    v.   Test the system

1.4 RESEARCH METHODOLOGY

The following procedures were used in order to achieve the study's aforementioned aims.

a)   A review of literature will be done in order to identify and understand existing System.

b)   The user and system requirement of the system will be identified from system users via informal interview.

c)   The system design will be specified using unified modelling language (UML) diagram such as: use case, sequence diagram, class diagram.

d)   The database will be implemented using the SQL/JSON via MYSQL and the frontend will be implemented using VS Code

e)   The system will be tested by component and then finally tested as a whole.

1.5 SIGNIFICANCE OF STUDY

The use of various communication technologies has progressed far beyond phone conversations and text messages; the internet is currently the most widely recognized and popular mode of communication in society. It is not just acquiring the knowledge of ICT that is important, organizations need to understand how to use ICT in an instructive manner. For proper monitoring and control of the system, this project will be advantageous to the management of the NYSC orientation camps. When utilized properly, ICT can help to build higher cognitive skills, deepen learning, and aid in the acquisition of skills needed for lifelong learning and working in today's labor market. (Tchombe et al., 2008).

 Furthermore, this research will assist institutions in achieving the following goals:

i.   Maintain a database of all NYSC Corp members, both current and past.

ii.   Keep Corp members updated and in touch with each other.

iii.   Keep a high-level secured database of accurate information or details relating to them.

1.6 SCOPE AND LIMITATION

a) Much finance was required during the design of this work, and due to the global pandemic, the research was limited by finance and thus concentrated on the available materials within the locality. The research had a lot of trouble gathering information because of time constraints, which was one of the study's limiting factors.

b) This project was limited to developing a web platform. The target users are all users including other interested parties. The test case audience of this study is limited to the students.

1.7 DEFINITION OF TERMS

- **NYSC**– National Youths Service Corps.

- **PPA**– this is an acronym for Primary Place of Assignment. Corp members are therefore posted to a place relevant to their discipline (although sometimes national need may override this consideration) where they offer their services.

- **Technology**– The application of the knowledge and usage of tools (such as machines or utensils) and techniques to control one's environment.

- **Web applications**– A computer application that is accessed via a web browser over a network.

- **Corp members**– An individual who has graduated from a recognized university or some other institution within the country, then finished with the NYSC registration referred to as a copper.

- **PHP**– PHP is a general-purpose scripting language geared towards web development. Rasmus Lerdorf, a Danish-Canadian programmer, first built it in 1994. A PHP interpreter, which can be implemented as a module, a daemon, or a Common Gateway Interface (CGI) executable, is commonly used to process PHP code on a web server.

- **MYSQL**– MYSQL is an oracle-based open-source relational database management system (RDBMS) based on Structured Query Language (SQL).

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTCION

This chapter provides a review of the literature on the factors influencing the successful implementation of the NYSC information system enhanced with social networking. This chapter begins with the conceptual review, theoretical review, review of the related literature and the summary of the literature reviewed.

2.2 The National Service year

The National Youth Service Corps Year is divided into four (4) primary parts, each of which each Corps Member must complete satisfactorily before receiving a certificate of National Service. As a result, the service year entails:

a) Orientation Courses

b) Primary Assignment

c) Community Development Service

d) Winding up / Passing out

2.3 SOCIAL NETWORK

A social network is a social structure made up of a group of social actors (such as people or organizations), a set of dyadic links, and other social interactions between them. The social network approach offers a collection of tools for evaluating the structure of entire social entities, as well as a number of hypotheses to explain the patterns that emerge. Social network analysis is

used to detect local and global trends, uncover influential entities, and investigate network dynamics in the study of these systems.

2.4 NYSC INFORMATION SYSTEM

(CHIMELEZE ,2012), did a project on the implementation of an Automated NYSC information System using Camp AGWU as a Case study. She designed a system that would store information about corps member in secure and efficient manner, that could also be retrieved easily. The system was designed in a purpose whereby corp members would not need to go through stress to get their documents, she used a top-down software development approach.

(Johnpaul, 2012), did a project on computerized posting system. He designed a system that would allow cleared graduates to register, generate their call-up letters and post them to their various areas for deployment. He used Microsoft visual studio (ASP.Net) as its frontend and Microsoft SQL as its backend. Although this already being implemented in today's society and it has made posting graduates easy and efficient.

2.5 INSTANT MESSAGING

Instant messaging (IM) is a kind of online chat that allows users to send text messages in real time over the Internet or another computer network. Messages are often conveyed between two or more parties when each user inserts text and sends it to the recipient(s) via the same network. Instant messaging varies from email in that interactions take place in real time (hence "instant"). Most modern instant messaging apps (also known as "social messengers," "messaging apps," or "chat apps") employ push technology and include additional features such as emojis (or graphical smileys), file sharing, chatbots, Voice over IP, or video chat.

2.6 RELATED WORK

These are some of the related works on social platforms and NYSC information system.

S/N	AUTHOR	YEAR	TITLE	METHODOLOGY
1	JOHNPAUL, Hampo	2012	Design and Implementation of NYSC posting system	Automated posting system, using ASP and Microsoft SQL
2	Chimezie Linda	2012	Design and Implementation of NYSC orientation camp information	Used a top-down software development approach
3	Gabriel Amodu	2015	PeersView	Developed a platform for students all over the world could use
4	Landmark ICT	2014	LIME (Landmark Instant Messaging Environment)	A platform for the student of Landmark University (LIME for Landmark Instant Messaging Environment allows you to discuss thoughts,

				whereabouts, or important information with your friends.)

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CHAPTER THREE

METHODOLOGY

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3.1 METHOD OF IDENTIFICATION OF USER AND SYSTEM REQUIREMENT

Although several ways of user and system identification are available, the major source of user identification and system requirements employed in this project are:

a   **Primary source:** refers to a method of gathering information in which the requirements or data were gathered via the use of an empirical technique, such as an informal survey or a personal interview

b   **Secondary source:** Secondary sources of information included journal articles, library resources, periodicals, and newspapers, among other sources. Informal survey: The informal survey is one of the methods used in the collection of user and system requirement. Informal survey involves observation of already existing system.

Personal interview: It is a method of gathering information from a responder by directly addressing questions to the respondent and gathering information with the goal of promoting comprehension. The interviewing process for the proposed took place between the researcher, a drug counsellor, and a recovering drug addict patient, among others. On the basis of the questions posed throughout the system's development, reliable responses that aid in the understanding of the system's and user's requirements were gathered and evaluated.

3.1.1 Identification of System Requirement

System requirements are more precise descriptions of a software system's functions, services, and operational constraints. They are also known as functional specifications. The system requirements document, also known as a functional specification, should specify precisely what is to be implemented in the system under consideration.

The computer system is made up of many components that work together to accomplish a common purpose or objective. The following are the requirements for putting the system into operation:

    i. Functional Requirement of the System

   ii. Non-Functional Requirement of the system

  iii. Software Requirement

  iv. System Requirement

  a **Functional requirement**

      These are statements about the services the system should deliver, how it should respond to specific inputs, and how it should operate in specific situations. The functional requirement of the system developed are:

      i.   Corp members should be able to sign up and sign in to the system

     ii.   Corp members should be able to retrieve password if forgotten

    iii.   The system should be able to keep information about the corp member

    a. **Non-functional requirement**

Limitations on the system's services or functions, such as time, development process, and standard constraints. The system's non-functional requirements are as follows:

    i.   The corp members should be authenticated with their Phone Numbers and password before logging them into the NYSC information platform

    ii.   The system would be maintained by the admin manager

    iii.   The system should be useable by Corp members

    b. **Software requirements**

For the effective and efficient implementation of the system, the following software were installed and used:

    i. Web browser

    ii. Visual Studio Code

    c. **System requirement**

For the successful implementation of the system, the system requirement used is;

    i)   Systems with internet connection

    ii)   Systems with web browsers

3.1.2 Identification of user requirements

The NYSC information system must provide certain requirements for the user. The users of the systems are as follow:

    i)   Corp members:

a)   Corp members can sign up

b)   Corp members can sign in

c)   Corp members can manage their account

d)   Corp members can send messages

e)   Corp members can receive messages

ii)   Admin

a)   Edit Corp members accounts

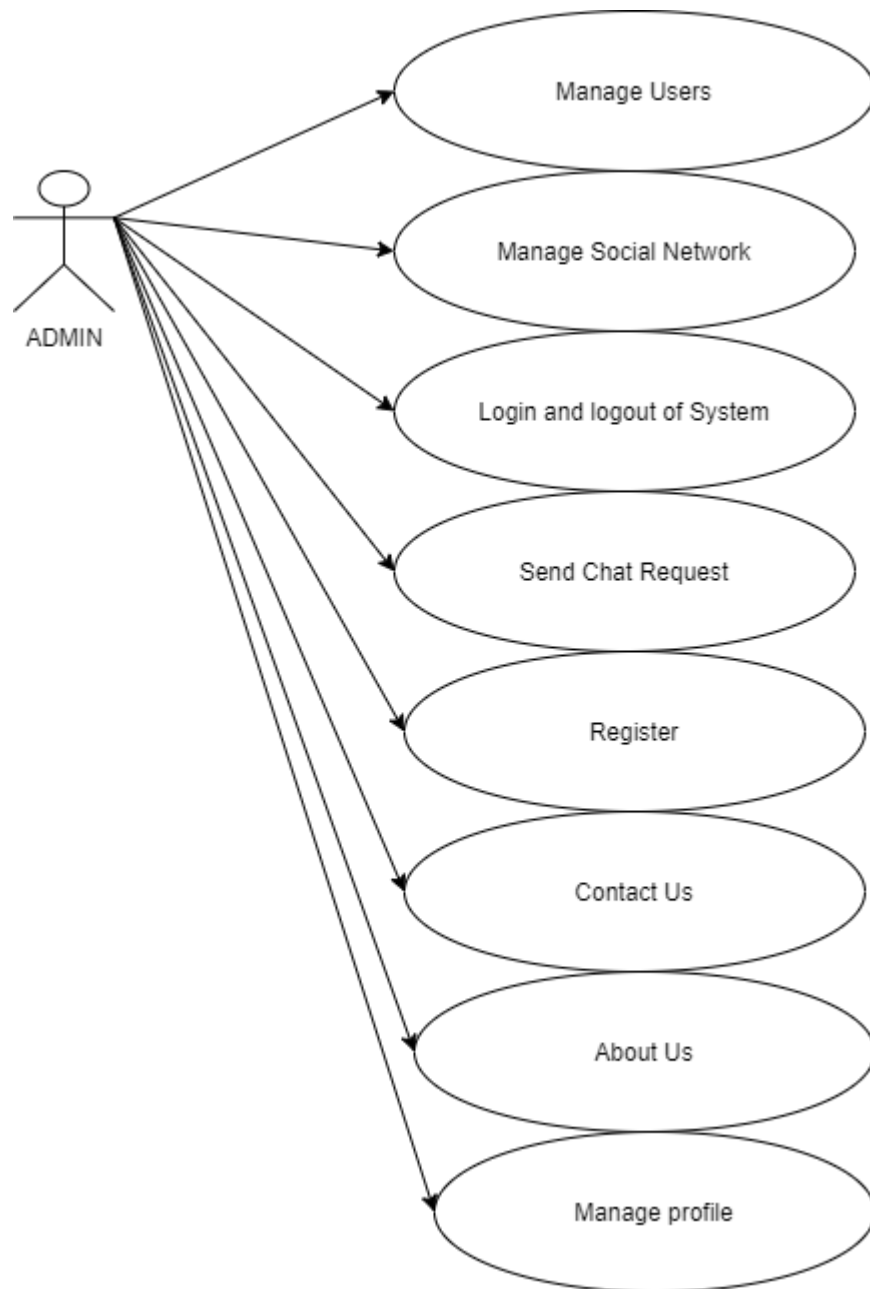b)   Send Information to Corp members

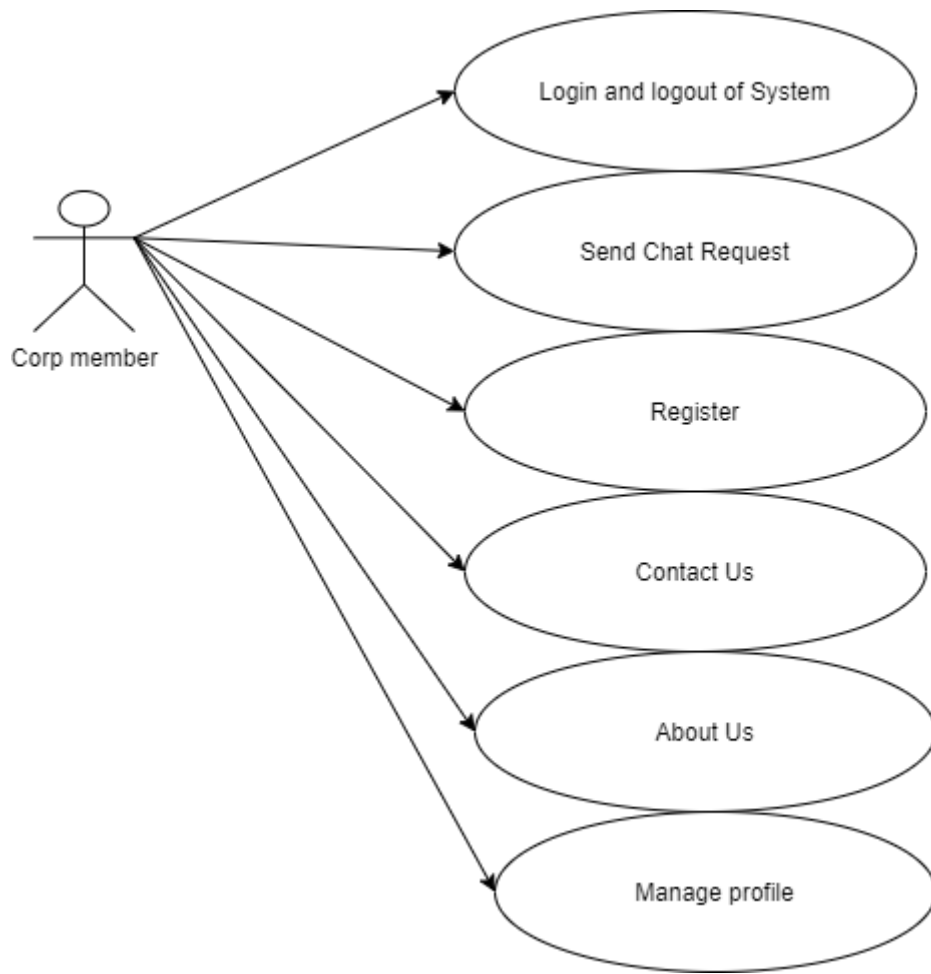## 3.2 USE CASE DIAGRAM

Fig. 3.1: Admin use case diagram

Fig. 3.2: Corp member(users) use case diagram

3.3 Flowchart Diagram

A flowchart is a diagram that shows how a workflow or process works. A flowchart is a diagrammatic representation of an algorithm, or a step-by-step procedure for completing a task.
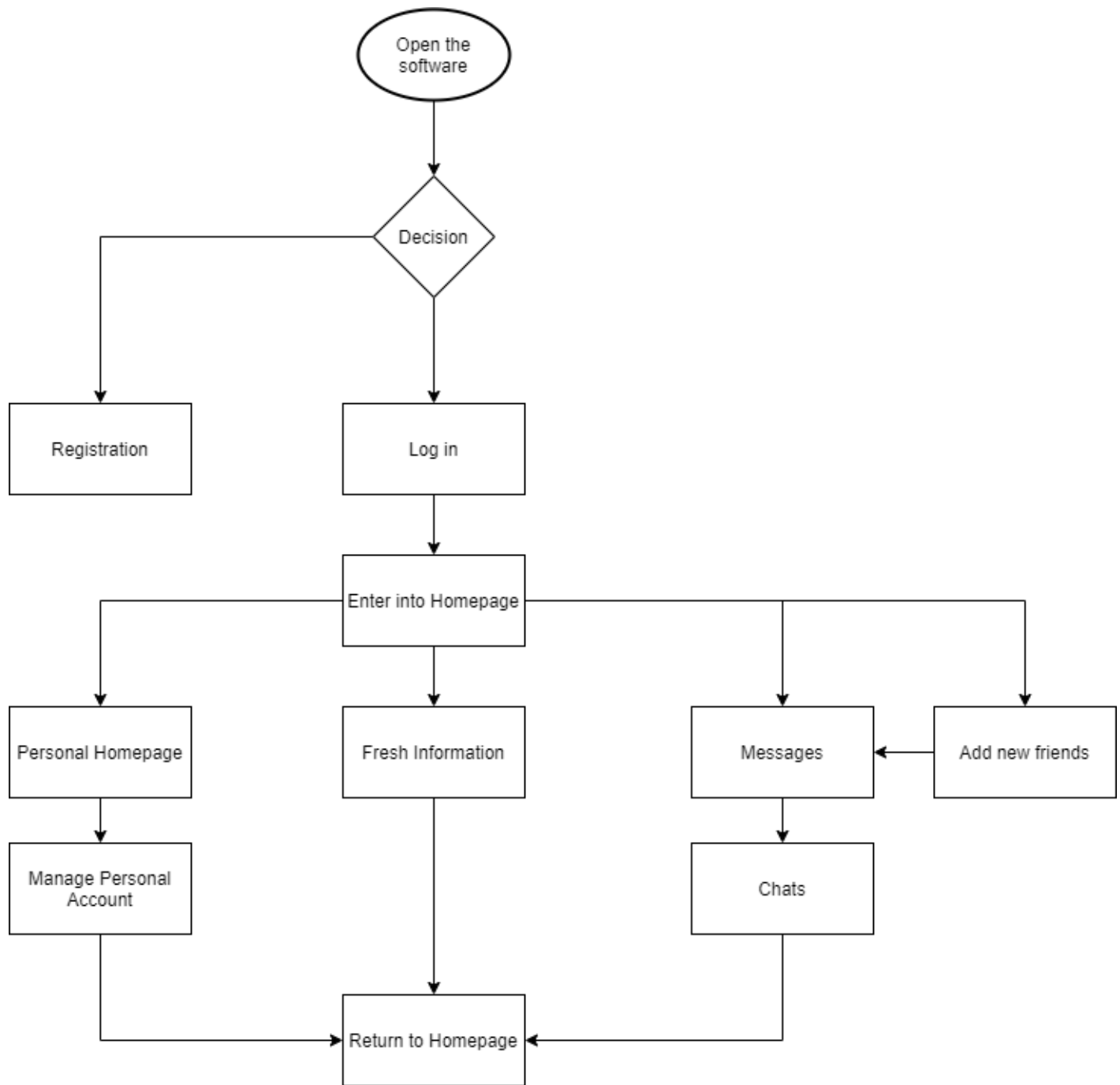
The flowchart for the user is illustrated below:

Fig. 3.3: User Flowchart diagram

3.4 Sequence Diagram

A sequence diagram is an interaction diagram that shows how operations are carried out, including which messages are sent when and when they are not. Sequence diagrams are arranged chronologically. As you scroll down the page, the time passes.

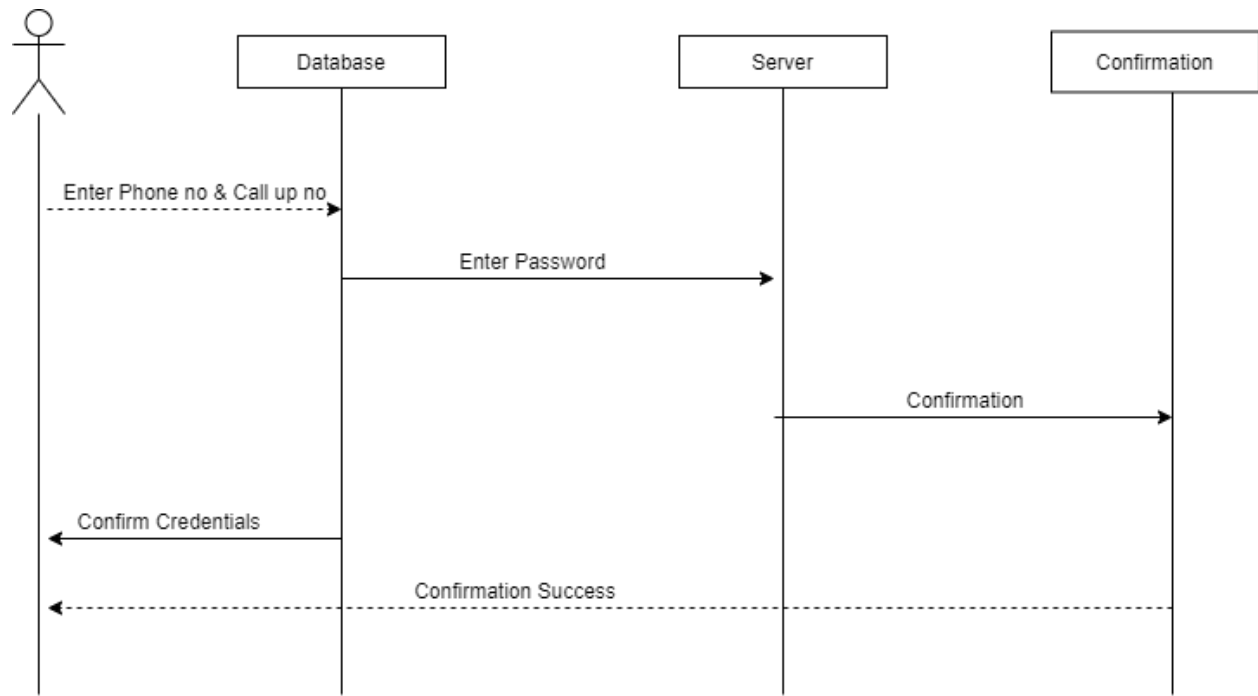The Sequence diagram of the system is illustrated below:
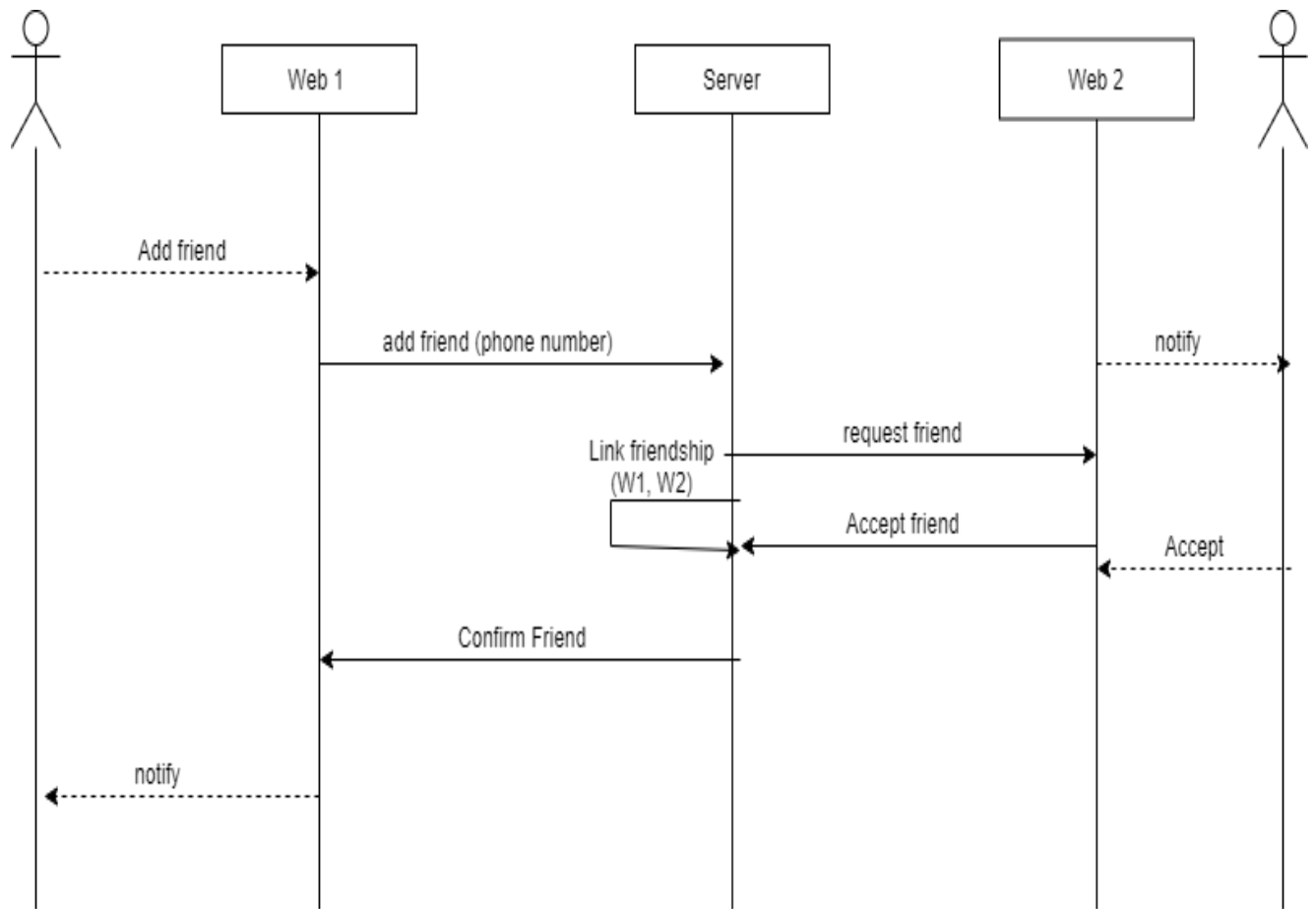

Fig. 3.4: User registration sequence diagram

FIG. 3.5: User Sequence Diagram

CHAPTER FOUR

IMPLEMENTATION

4.1 INTRODUCTION

This chapter illustrates the implemented system. The first section provides in detail information about the backend implementation of the system. The backend was built with the aid of Visual Studio code. Later sections provide details on the front-end design of the system which was built using react a JavaScript framework. Screenshots from the system are also illustrated to show the implemented functionalities.

4.2 SYSTEM IMPLEMENTATION

The implementation of this system begins by converting the logical structure of the system into physical architecture through coding and development of the system. The system was implemented using the following:

i **Language:** PHP

ii **Database:** MySQL

iii **User Interface:** JavaScript

iv **Operating System:** Windows 7 or higher version.

4.3 Database Implementation

The database of the system was developed using MySQL. MySQL Database Service is a fully managed database service to deploy cloud-native applications. The database of the developed system contains details of the users (corp members) during registration.

4.4 Discussion of Results

The result of the study on the topic NYSC information system with enhanced social networking expected results based on the objectives that were initially stated on the topic. The results of the identification of user and system requirement aided the definition of the system users been the administrative registration officer, and the corp members respectively. The result revealed that the administrative registration officer is responsible for the registration of corp members. The admin is responsible for managing the platform as a whole and managing the users of the platform.

The result also revealed that the methods adopted in this study adequately caters for the user and system requirement initially specified for the system with a unique interface for each user role and a database that handles records for all the involved entities in the system and their various operations. Hence it is safe to say that the result of this system presents a solution to the existing method of communication between corp members.
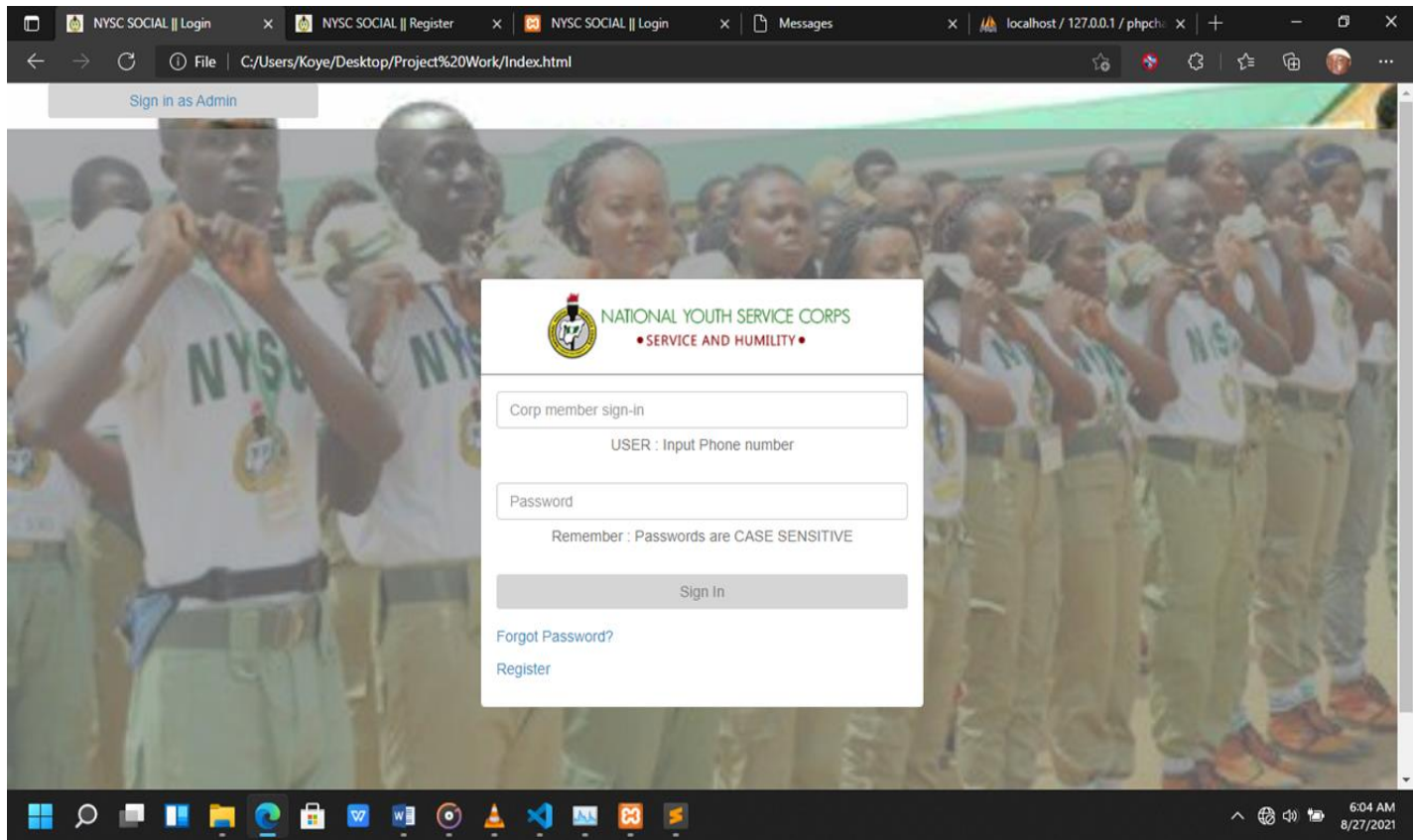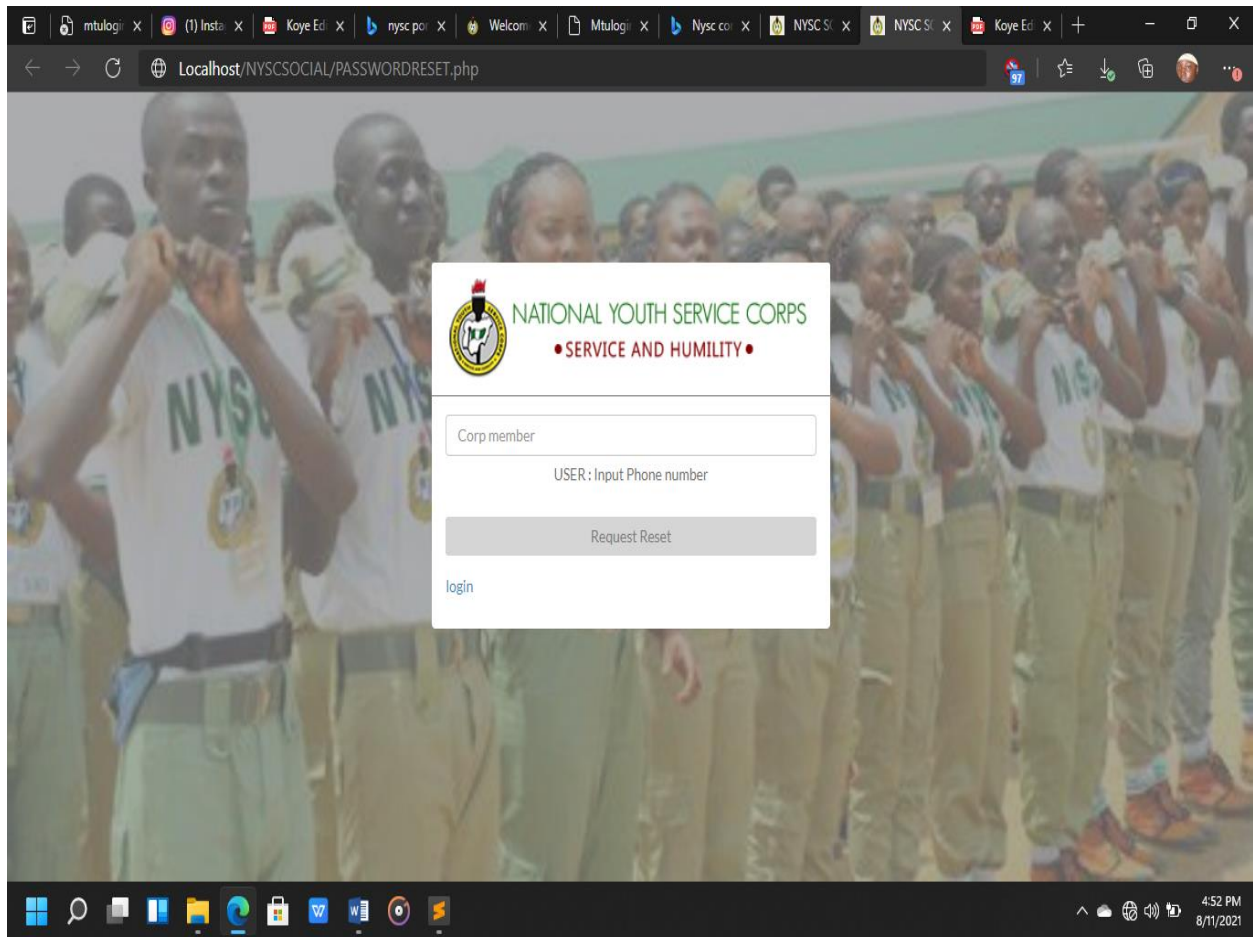
Fig. 4.1: Corp member sign-in page
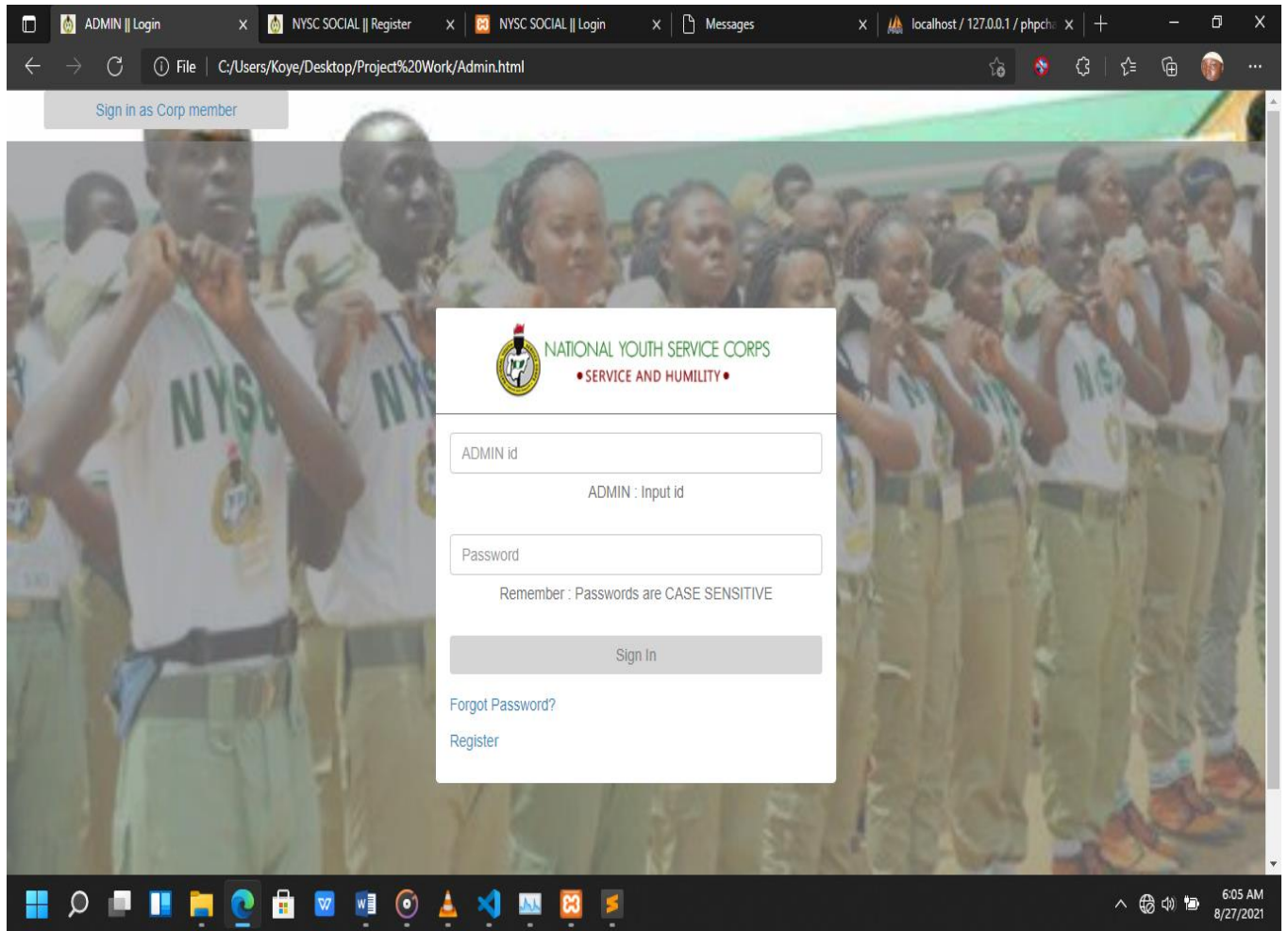
Fig. 4.2: Corp member forgot password page
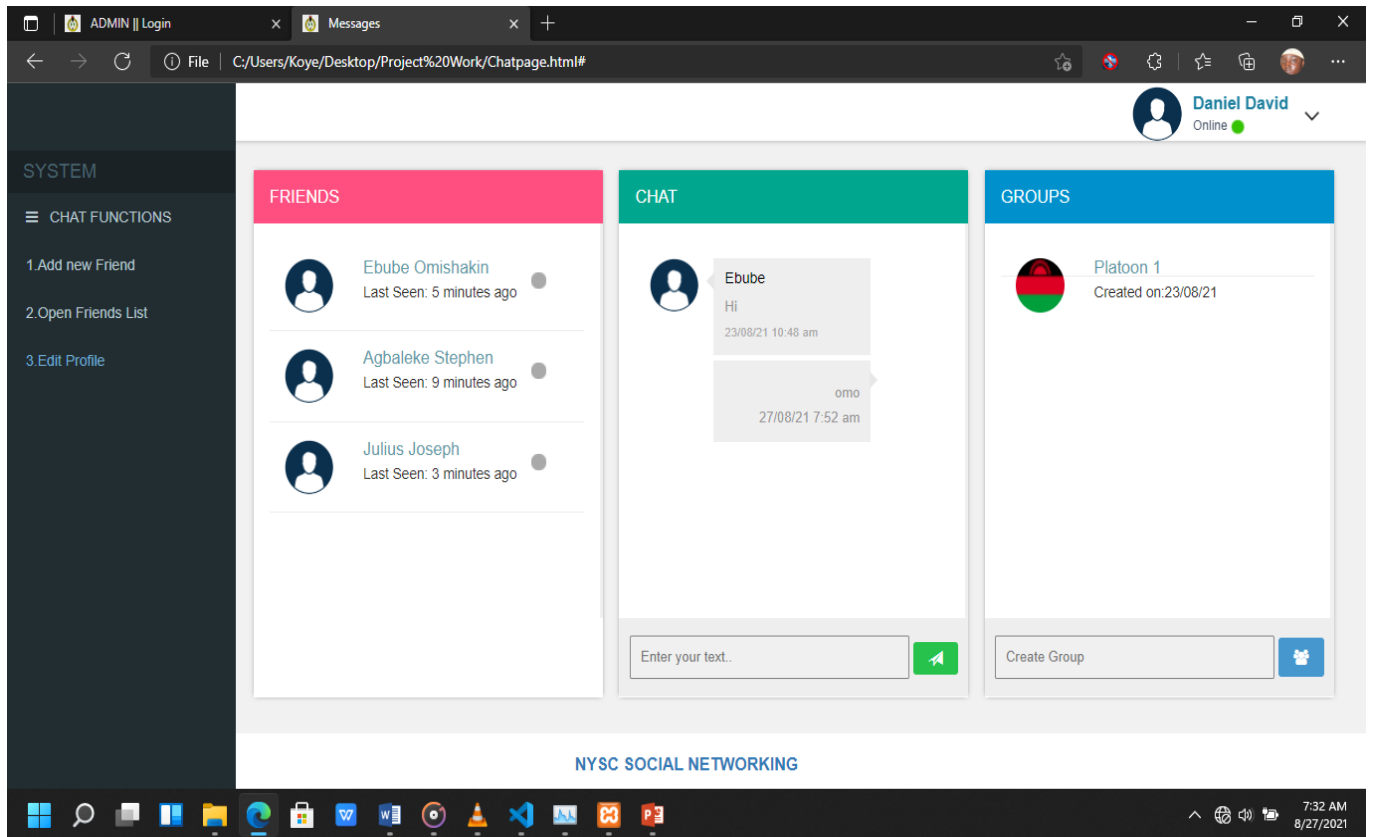
Fig. 4.3: Admin Sign-in Page

Fig. 4.5: Chat screen page of Corp member
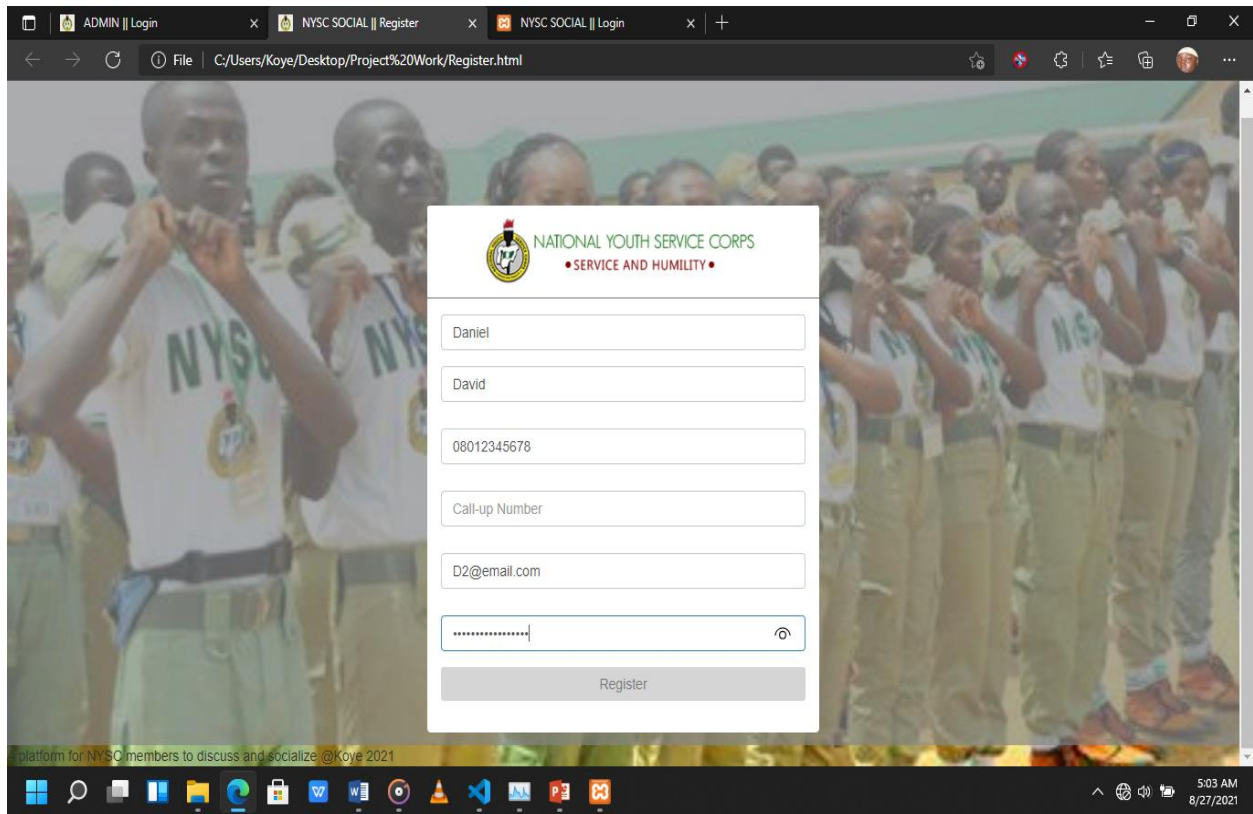
Fig. 4.4: Corp member registration page

CHAPTER FIVE

SUMMARY ANDCONCLUSION

5.1 Summary

This chapter has the following sections: Conclusion, Interpretation, Limitations, and Recommendation. An introduction to the NYSC, as well as a description of the existing system and its drawbacks, were offered at the opening of the project chapter. A brief discussion of the research problem, research techniques, and so on was held with the project's goal and objectives in mind. The primary subjects discussed in the chapter two literature review on the NYSC and social network. In chapter three, system analysis and design were investigated utilizing a variety of flowcharts, use cases, and sequence diagrams to provide explanation. The hardware and software specifications have also been released. In chapter four, the implementation and screenshots of the working system were explained, as well as the justifications for using certain languages., and the system was examined and concluded at the end of the chapter.

The requirements were also specified using UML diagrams such as use case diagram, activity diagram, sequence diagrams and class diagram for user requirement and system modelling respectively. The system was developed using visual studio code framework for the frontend as well as MS SQL server and entity framework for the database management on the system.

5.2 Limitations

Because this is a B.Sc. project, it has limits This project is only accessible to students who have completed their youth service requirements. There were other constraints which made this project difficult.

The following are the constraints:

a. Time constraints

b. Cost

c. Constraints on resources and internet connectivity

5.3 RECOMMENDATION

I recommend that future works in this area be done to integrate other features as photos, video sharing and voice message etc.

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