DESIGN AND IMPLEMENTATION OF AN ONLINE ALUNMI MANAGEMENT SYSTEM

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BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE, SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY, AUCHI POLYTECHNIC, AUCHI, EDO STATE

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CERTIFICATION

We, the undersigned hereby certify that this project was carried out by **MOHAMMED ABDULAFEEZ, MOHAMMED VICTORY IMADE, MOMOH SYLVIAN, MUNTARI PRECIOUS, AND NEGBE CYNTHIA HAPINESS** of the department of Computer Science, School of Information and Communication Technology. Auchi Polytechnic, Auchi. Edo State.

We also, certify that this project is adequate in scope and quality in partial fulfillment of the requirements for the award of Higher National Diploma (HND) in Computer Science.

_____ _____

Mr. Uduigomen U.C **DATE**
 (Project Supervisor)

_____ _____

Mr. Akhetuamen S.O **DATE**
(Head of Department,
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DEDICATION

This research work (project) is dedicated to God Almighty, for His infinite strength towards the course of this project.

ACKNOWLEDGEMENT

We are grateful to God for this work and for sustaining me to the end of this programme, I sincerely appreciate my supervisor **Mr. Uduigomen U.C** for his relentless effort in supporting, correcting, and advising me in the course of this project work.

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Finally, our special gratitude goes to God Almighty, who sustains life and enables success in every endeavor.

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ABSTRACT

This is an era in which information technology is highly advanced and contact information of one's classmates from all over the world is always changing with living areas changing. This will inevitably make one lose touch with their classmates and alma mater. Based on this situation, a platform to strengthen one's connection with the college is urgently needed. Therefore, alumni management system comes into being. It's a platform for alumni to communicate with each other which is beyond the restriction of time and space. Through this system, alumni can discover new employments opportunities they can apply for them. Alumni can also publish any announcement approved by the system administrator. The system should collect information about the working experience of graduates. It can improve communications and facilities teaching process. This system is based on web technology and implemented using PHP Programming language and MySQL as development tools.

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND TO THE STUDY

Alumni are one of the most valuable assets to the school because they are the people who represent the school in the real world.

Alumni form associations to foster a sense of unity and loyalty among former students and to strengthen ties between alumni, the community, and the school. Because of their enormous outreach potential that benefits the school and helps current students in their career paths, these associations have grown in importance in the development of the school.

According to Gunasekara (2017)," most alumni members are leading professionals spread across the country and worldwide…alumni association is working toward achieving the objectives such as building team strength, developing friendship and brotherhood among the membership, facilitating the upgrading of the college academic, extra-curricular activities and infrastructure etc. The alumni association provides a channel for professional and social communication between the past pupils themselves and the school". The Auchi Polytechnic Alumni Association is still using an old-fashioned contact system that can no longer keep up with the current pace of life due to human error, inefficiency, time consumption, and so on. As a result, the alumni management system must provide a platform to address these shortcomings.

As the name implies, an alumni management system is a platform for alumni and alma mater to communicate with one another. System administrators and regular users are the two kinds of users. System administrators must be added to the database, whereas regular users can register on the site. Ordinary users can post and view news and messages on the website, resulting in true online communication. Asress Tilaye (2017).

The system provides a mutual contact platform for alumni. In such a rapidly changing era, our social circle become more and more widely, contact information may be due to various reasons will be replaced very frequently. If you replace Information, notifying everyone who would contact you was somewhat realistic and time-consuming. We can collect and organize information more effectively. Alumni management System helps administrators maintain alumni contact information, plan fundraising initiatives, process and track donations, and organize alumni events. NPOInfo (2021).

As this project mainly focuses on Alumni Management System on web to manage the Association Memberships, Scholarships, News and Events. It uses methods based on web development tools like HTML, CSS, JavaScript, and VS Code Editor for its Frontend, along with PHP, MYSQL, and XAMMP for its Backend technologies.

1.2. STATEMENT OF THE PROBLEM

- **Lack of an accurate and homogeneous database of the school's alumni** Alumni records have been kept in a variety of ways throughout the school's history. The records were archived once the student graduated, making access to these records difficult and time consuming.

- **Limitations in expanding the membership**
  Because members must submit membership forms by hand, most former students are hesitant to join the association. There are geographical constraints in developing international alumni relations and gaining overseas alumni membership.

- **Conventional process for communication**
  Communication is essential for the association to inform members and others about its goals and activities, as well as to motivate them to become involved with the association and the school. By sending individual letters through the mail, alumni are informed about membership renewals, meetings, and events in the

traditional process. This method is time consuming, expensive, and has a low response rate.

▪ **Outdated information in the current static website**

The current website only provides information about the school through one-way communication, leaving little room for future activities and member interaction. Members have no or limited opportunities to participate in decision making by providing feedback to align services with existing and emerging needs.

1.3. AIM OF THE STUDY AND OBJECTIVES

The proposed system is intended to meet the following objectives:

- Maintain the updated and current information of all alumni.
- Encourage, foster and promote close relations between the school and the alumni and among the alumni themselves.
- Encourage the alumni to support and participate in programs, services and events of the association.
- Obtain feedback and opinions from alumni for planning and implementing the activities of the association.
- Provide a contemporary centralized base of information that is easy to use by alumni committee members.
- Provide efficient standard reporting and ad hoc reporting capabilities.

1.4. SIGNIFICANCE OF THE STUDY

This system can be used as an application for the Alumni Management System to manage the college information and student's information. The system is an online application that can be accessed throughout the Association and Guests with proper login provided, which will give better service to the customers which includes:

- Save time and cost.
- Automate the mechanism for search and retrieval of information.

- Can be accessed remotely from any part of the world.
- Easier to alter and implement changes in the existing data.

1.5. SCOPE OF THE STUDY

The scope of this study is limited to designing a web-based Alumni Management System for The School of Information and Communication Technology, Auchi Polytechnic, Auchi. Which will serve as a central repository for all information of her graduates.

1.6. LIMITATIONS OF CASE STUDY

As for the limitations:
- The alumni will only be the former and new students of the Alumni Association and it cannot be access by students who is not graduated of the institution.
- The users cannot chat or make private message to the other alumni using the system.
- The users cannot be notified if there are a new comments or posted topics and job description.
- The system can only be access with the used of internet connection.
- The System will be a web-based system so the customers will not be able to enjoy the full experience using mobile phone.
- The developers are always open for future improvements for android and IOS devices.

1.7. DEFINITION OF TERMS

- **Web-Based:** is any program that is accessed over a network connection using HTTP. Web based applications often runs inside a web browser.
- **XAMMP:** is an abbreviation for cross platform, Apache, MySQL, PHP and Perl, it allows you to build WordPress site Offline, on a local web server on your computer.

- **Database:** is a collection of information that is organized so that it can be easily accessed, managed and updated.

- **PHP:** Is a programming language that is widely-used open source generalpurpose scripting language that is especially suited for web development.

- **MySQL:** Is a freely available open source Relational Database Management System that uses structured query language. SQL is the most popular language for adding, accessing and managing content in a database.

- **Human Error:** Refers to something having done that was "not intended by the actor, or desired by set of rules or an external observer, or that lead to task, or system outside its acceptable limits".

- **Administrator:** A person who installs, maintains, and supports an organization's information technology systems and is responsible for the upkeep, configuration, and reliable operation of computer.

CHAPTER TWO

LITERATURE REVIEW

2.1. REVIEW OF RELATED LITERATURE

So here in this chapter the previous work, review of related literature and the study of our system will be discussed. As when an institution grows, it needs to evolve in order to effectively manage the increased amount of information required to effectively run. Today, this means making the leap from analog to digital.

Alumni are one of the important components of any institution, because they are peoples who represent that college in the world. The system we developed is a web-based Alumni Management System that shortens the gap between the institute and its alumni network in order to create and expand opportunities for both. SchoolSoftwarePro (2019).

According to Nayyar et al., (2021), the need for communication between graduates and their colleges and universities increased in recent years to learn a lot about them and their needs and the labor market needs. This research continues to contribute to building a solid base among graduates and university students to learn more about the needs of the Saudi labor market of qualified labor enough to strengthen the labor market in the field of information technology and new efficiencies.

Hayman and Partridge (2013) concluded that alumni networks can be used to help young people navigate the transition from education into employment and to support schools to finance extra-curricular activities and infrastructure projects.

The alumni involvement is the most important part of an educational institute or a foundation. A portion of esteem of a college rests on its Alma Mater. After the students completing their education, they begin their voyage in the corporate world. Reuniting with their friends in the college has been a very significant part of their memory. Alumni web portals are not only for bridging a path between alumni with

their friends and college. It is also necessary for lending the helping hand to the currently studying students to improve their knowledge. Sasikumar et al., (2020).

2.2. THE INITIAL SYSTEM STUDY

The Initial or existing systems are both manual and computerized. The conventional process is to store alumni and current students' details in ledgers. This will be maintained by each department. So, there is no centralized database. It requires the college to collate all the details of the alumni and maintain it. As it is all about maintaining ledgers, it will consume more space.

Another method of computerized is to store the students' information in the excel sheets. It is also same as of manual process except that details entered in ledgers are replaced by excel sheets which will be maintained in the computer without consuming external space for the Association. It makes advantage of accessing the information at any time. Searching and accessing a particular student record will be somewhat easier in excel sheets than manual one. Developing from these and all now some colleges maintain a web portal which maintains alumni information. In addition to that it bridges a path a between alumni and currently studying students by providing a forum between them.

2.3. DRAWBACKS OF THE INITIAL SYSTEM

These portals allow the admin only to post events related to their colleges and other colleges. These forums are public and any members of this portal can see. Subashini & Sowndarya (2017).

- The conventional method leads to more time and space consuming.
- Tedious process to collect and keep updating the alumni details.
- Difficult to maintain the historical data.
- Difficult to search a particular record ☐ The excel sheets are not centralized.
- Web portals have lack of privacy. ☐ Many unrelated information

2.4. THE PROPOSED SYSTEM

The proposed system will be online so it can be accessed by alumni anywhere. It will enable quick and easy communication. Each user will be responsible for the updating their own information. As it does not require the constant attention of a group of students for its maintenance. Alumni will be able to organize meetings and find out about job opportunities on themselves using this system.

Alumni of a college generally stay in touch with their immediate friends but find it hard to stay connected with other college mates. Contact between alumni can be used to forge business connections and to gain references or insight in a new field.

New college students will be required to register. Access to portal can help them in building connections to help them in their projects or for placements.

The system will automatically list all college students as alumni. Users will be prompted to update social network details such as their Facebook, LinkedIn and Twitter handles. Users can also choose to automatically share new updates in work status from their LinkedIn profile. Users will also be able to share and promote their business Facebook pages or Twitter handles through the system.

The system can display user location as given by the user. If there are more than 10 alumni available in the same city, they can notify themselves about the possibility of a meet.

Alumni will also be able to provide public posts on the system about possible job opportunities or other college related news. Since it is unlikely that alumni will check the system frequently the system admin will be able collate all public posts and create a newsletter that can be emailed to all alumni.
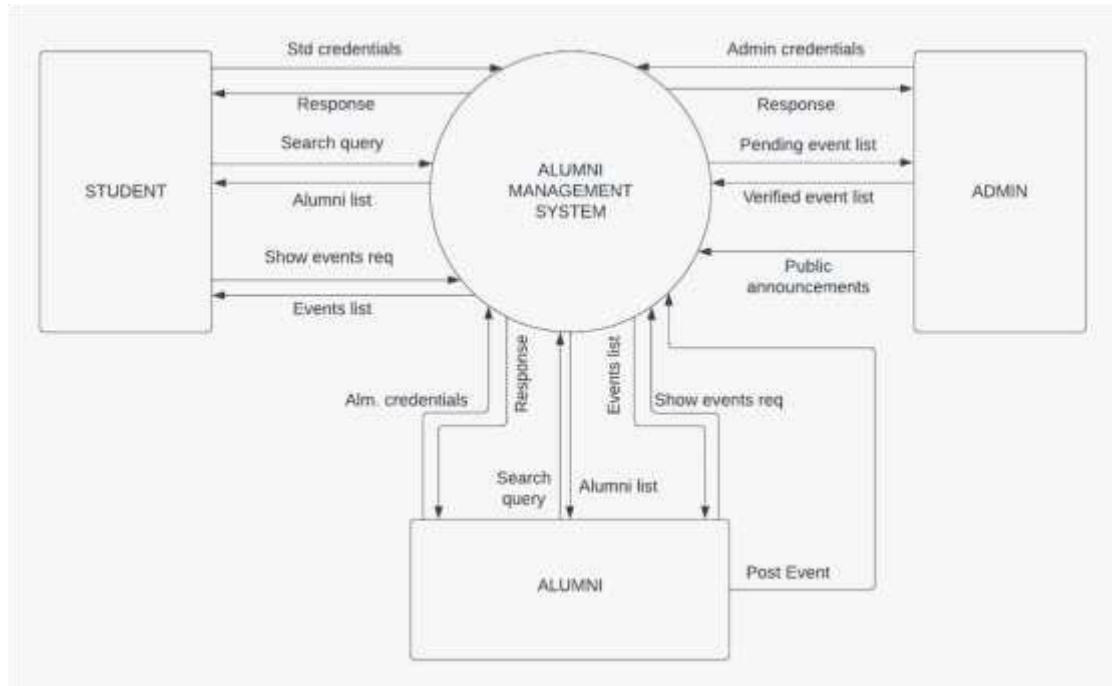
2.5. CONTEXTUAL DIAGRAM OF THE PROPOSED SYSTEM

Figure 2.1: shows the Contextual Diagram of The Proposed System for Auchi Polytechnic Alumni Association.

2.6. FEATURES OF THE PROPOSED SYSTEM

An alumni builders systems features includes the following: Alumni class page- a directory of alumni names by class year with links to individual profiles and email addresses; Alumni Profile – is controlled by individual users and displays only the information that he/she wants to display; Alumni Search – allows the users to search by name, class, occupation, address, etc.; Alumni Forum – offers alumni a way to stay in touch with classmates and friends form other graduation years; Alumni Notes – allows classmates to communicate by posting on a notes page; Secure Login – use to block sensitive alumni information from other school constituents; Profile Change Report – allows the school to keep track of the personal information that alumni can update; and Missing Alumni Page – helps the school reconnect with graduates whose personal information is outdated.

Web based application have four core benefits. These are the following: 1) Compatibility. Web based applications are far more compatible across platforms than

traditional installed software like web browsers. 2) Efficiency. Everyone hates to deal with piles of paper unless they do not have any other alternatives. The benefit of web based solution makes services and information available from any web-facilitated Personal Computer (PC). 3) Security of live data. Normally in more complex systems data is moved about separate systems and data sources. In web-based systems, these systems and processes can often be merged by reducing the need to move the data around. Web-based applications also provide an additional security by removing the need for the user to have access to the data and backend servers. 4) Cost Effective. Web-based applications can considerably lower the costs because of reduced support and maintenance, lower requirements on the end user system and simplified plans.

The study of Barnard & Zenia (2008), determines the extent to which an online community portal could manage the information needs of alumni stakeholders, using the alumni of the University of Johannesburg as a case study. Establishing an online community Web portal for alumni will support a customized approach in terms of information content, dissemination, context and commerce. An online community environment will offer alumni opportunities to re-establish contact with peers and nurture relationships with one another through frequent social interaction. Such a facility would allow and encourage conversations that are of value to all stakeholders, as these communities can exist beyond the boundaries of location and time.

It is easy to retrieve individual records or small subsets of records from the encrypted database by identifying them precisely, but mass harvesting queries matching a large number of records are computationally infeasible. The database is transformed in such a way that all queries except those explicitly allowed by the privacy policy become computationally infeasible, i.e., the solutions do not rely on any access-control software or hardware. Managing data resources at high quality is usually viewed as axiomatic. However, Even, Adir (2015) suggest that since the process of improving data quality should attempt to maximize economic benefits as well, high data quality is not necessarily economically optimal

Hayman and Partridge (2013) concluded that alumni networks can be used to help young people navigate the transition from education into employment and to support schools to finance extra-curricular activities and infrastructure projects. Mijic and Jankovic (2012) that a possible solution in tracking information about graduate students - alumni, and its potential contribution to improvement and innovation of study programs is through the use of an information system. Kathleen et al. (2004) reported the development of a systematic process for locating instructional design alumni and recruiting them to provide feedback from their workplaces. The purpose of initiating this process is related to program improvement through alumni participation.

2.7. FUNCTIONAL REQUIREMENT OF THE PROPOSED SYSTEM

Functional requirements are associated with specific functions, tasks or behaviors the system must fully support. A functional requirement relates directly to a process the System has to perform or information it needs to contain.

Following are the functional Requirements identified by the analysis.

▪ **Registration**

New Alumni has to register him/herself into the system if they want to become the part of college by giving credential information like username, Email and password. Data mining technique will be used to get, store and retrieve the registered Alumni data.

▪ **Login**

Alumni who are registered in to the system will be able to login to the system whenever they want by entering required credential information like user name and password. Alumni can be able to perform any task like account management, check events, or check any type of update etc by logging in to the system.

▪ **Gallery**

A well thought out gallery can really help make your website stand out from the competition. They help you to share their school time experiences through the site. All of our galleries are built to be responsive. That means that the layout of the images will adjust according to the size of the display the visitor to your site is using.

▪ **Events**

Alumni events are key to a successful alumni engagement plan. An effective event planning process can go a long way towards building a powerful alumni community. Your alumni management system should provide comprehensive event management capabilities which include:

- An events calendar
- Invitation and reminder emails
- Ticketing options
- An effortless online payment
- Social networks integration to advertise the event

Your alumni management platform should support your transformation from offline to online.

For example, by enabling video calls, roundtable conferences, webinars, and more on the platform using the video conferencing tool of your preference. Furthermore, embedding conference links, offering a countdown to start feature, and allowing access to the live meeting from the event page are also super beneficial features.

▪ **Online Forums**

Alumni can utilize this online Forum to post opportunities or solicitation help from different Alumni in a similar area and assemble their expert organizations, incorporating through mixes with web-based media stages.

Also, an exceptional positions board is a significant benefit for any Alumni network. Your product should allow you to share occupations, add external work takes care of, and surprisingly let part alumni post open positions.

- **Job Openings**

  Database features in the system assist supervisors with collecting key information about Alumni, for example, contact data, profession history, participation status, and donation pattern. This information can work with more successful effort endeavours and can help Alumni relations staff close whom to contact and when.

  - **Alumni Data Management**

  Database features in the system assist supervisors with collecting key information about Alumni, for example, contact data, profession history, participation status, and donation pattern. This information can work with more successful effort endeavours and can help Alumni relations staff close whom to contact and when.

- **Website**

  The association needs a web site which presents information about the association, latest news, upcoming events and photographs of events. Moreover the members should be able to share their school time experiences through the site. An e shop should be there for online purchasing of car stickers, t shirts etc. Online ticketing facility should be there for buying event tickets online.

- **Admin Management**

  The past pupils should be able to get the membership online. The executive members should get the privileges to authorize the registration. The system must maintain the membership details as well as pending membership details. The members should be able update their profiles and view profiles of other members.

2.8. NON-FUNCTIONAL REQUIREMENT OF THE PROPOSED SYSTEM

Non-Functional requirements are the constraints the system must work within.

☐ SECURITY

The system facilitates to create users with specific rights for the application usage. The system must maintain the privacy of the users by maintaining their personal information inaccessible to others. Physical access to the computer storing the past pupil database shall be restricted to authorized personnel.

☐ USER INTERFACE REQUIREMENTS

The user interface of the application must be user-friendly, intuitive and easy to use. The interface must provide ways to navigate easily from one place to another. The system must allow the user to preview queries and reports before printing.

☐ PERFORMANCE REQUIREMENTS

The system shall function in real-time: any operation on the stored information, triggered by the member, should complete in less than 10 seconds. The system should allow simultaneous use by at least 50 users, without data corruption.

2.9. COMPARISION OF THE INITIAL AND THE PROPOSED SYSTEM ☐ FUTA ALUMNI ASSOCIATION WORLDWIDE WEBSITE

The intended purpose of alumni association is to celebrate old moments as well as commence a new chapter of relationships most importantly bridging the gap of years of graduation and allow for even networking where the alumni members benefit from their respective immense knowledge and professionalism.

The support of the FUTA Alumni in the diaspora scholarships were given to outstanding Futarians. Through the indigent fund raising, the Alumni has been able to pay students' tuition fee. Through the 2002 set club, the alumni donated (5) PA system to the school to make communication and teaching easy. At present, the

alumni association is erecting a CBT Building to support the University in ensuring that examinations are conducted in a convenient and conducive environment.

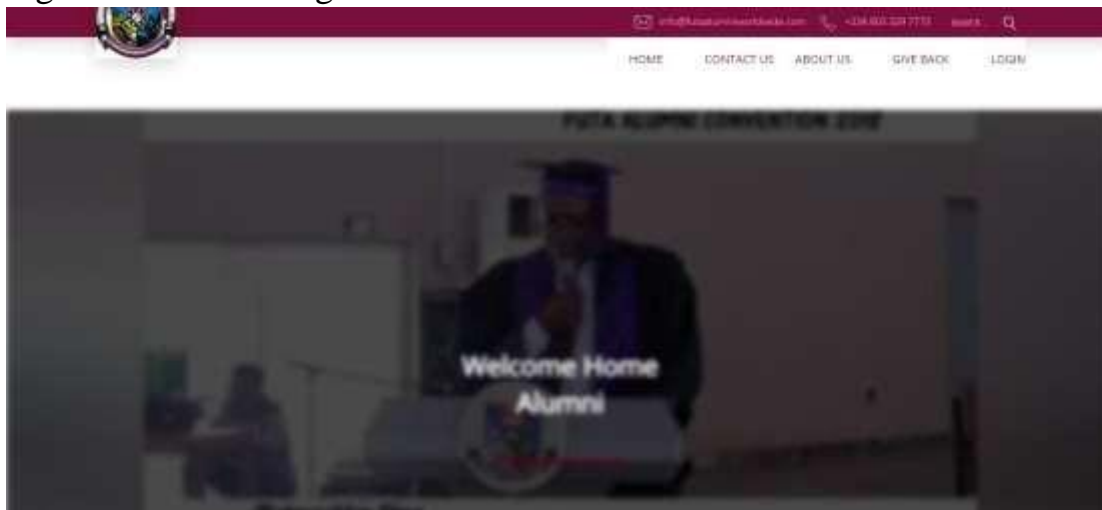Figure 2.2: Home Page of **FUTA Alumni Association Worldwide**

Figure 2.1: shows the home screen of FUTA Alumni Association management System. Here to apply as an Alumni the Students has to register or Sign in to the system.

 UNIVERSITY OF NIGERIA ALUMNI AFFAIRS

The University of Nigeria Alumni Affairs is an electronic system designed for Alumni to communicate and stay up to date on UNN NSUKKA. It also has an updated information board for Alumni, which includes events, career administration openings, Alumni movement, and so on. It also includes alumni data on their current status in life, which each former student can view. This enables Alumni to expertly perceive how their classmates have been. They can even communicate with previous colleagues via Chat.

Figure 2.2: Home Page of University of Nigeria Alumni Affairs

Figure 2.3: shows the Login option of University of Nigeria Alumni Affairs. Alumni must have sign in and accept the conditions given here to access the Alumni List.

2.10. COMPARISION TABLE

Features	FUTA	UNN	Our system
Registration	**Yes**	Yes	Yes
Gallery	**Yes**	**NO**	Yes
Chatbot	**Yes**	**Yes**	NO
Event management	Yes	Yes	Yes
Feed back	Yes	**NO**	**Yes**
Fundraising	**NO**	**Yes**	**NO**
Database	**Yes**	**Yes**	Yes

Table 2.4: Comparison Table

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1. PROPOSED SYSTEM REQUIREMENT

When beginning a new project, system analysis and design is the process by which requirements are gathered, analyzed, defined, and evaluated. Requirements define exactly what the software should do and should not do. This phase of development defines the scope of what the end product should be and should do.

Defining requirements in a clear, concise, and accurate manner is fundamental to the success of a product. Since no matter how good the design, implementation, and testing of the product, it cannot and will not be used by the end user if it does not perform the tasks it was required to do.

The system where in Software is planned, created, and kept up with is known as the Software Development Life Cycle (SDLC). It shows the means, stages, achievements, and development of the product development measure. There are many kinds of models utilized in programming plan and improvement. Among them are the Spiral models, Rapid development model, Evolutionary model, waterfall model and prototyping model. We use prototype model for our project. In this chapter we will discuss why we choose this model for our project.

3.2. CHOOSING A RIGHT SYSTEM DEVELOPMENT PLATFORM

Understanding the idea of a research issue as characterized by the researchers is basic to planning great quality software. The Software developers need to comprehend the specialized area somewhat, just as the necessary capacity and conduct of the ideal software execution, to foster a savvy, easy to understand arrangement. This archive gives an organized way to deal with researchers, programmers and project managers who contain the group for fostering a software application. if this methodology is followed, the researchers and programmer will be in fundamental arrangement on the course of improvement from the beginning of the

undertaking, which should assist with limiting surprises late in the improvement life cycle and furthermore assist with guaranteeing that project achievements are met.

We are going to develop an online Alumni management system. After studying all methodology's we decided to choose prototype methodology for Alumni management system because it suites in a best way to alumni management system. In coming section we will discuss why we choose this methodology for our project.

3.3. PROTOTYPE METHODOLOGY

Prototype Model is a functioning model of software development with some restricted Functionalities. The prototype model doesn't generally hold the specific logic utilized in the real software application and is an additional work to be considered under exertion assessment.

Prototyping is utilized to permit the clients assess designer recommendations and give them a shot before execution. It additionally comprehends the requirements which are client explicit and might not have been considered by the developer during project plan.

3.4. ADVANTAGES OF PROTOTYPING

a) Lessens development time.

b) Reduces development costs.

c) Requires client contribution.

d) Developers get quantifiable client feedback.

e) Facilitate system execution since clients realize what's in store.

f) Results in higher client fulfillment.

g) Exposes engineers to potential future framework upgrades.

h) Following is a stepwise methodology disclosed to plan a product prototype:

3.4. THE PROCESS OF PROTOTYPING

- **Identify Basic Requirements:** Determine fundamental prerequisites including the information and output desired information. Details, such us security, can commonly be disregarded.

- **Develop Initial Model:** The underlying model is fostered that incorporates just User interface.

- **Review:** The clients, end-clients, inspect the model and give input on augmentations or changes.

- **Maintenance of Model:** Using the input, both the details and the model can be improved. This strategy includes a progression of emphases and refinement until the model item is a completely working framework, and the client is fulfilled.

3.4. WORKING OF PROTOTYPE MODEL

Figure 3.1: Prototype Model

Proto Type Model
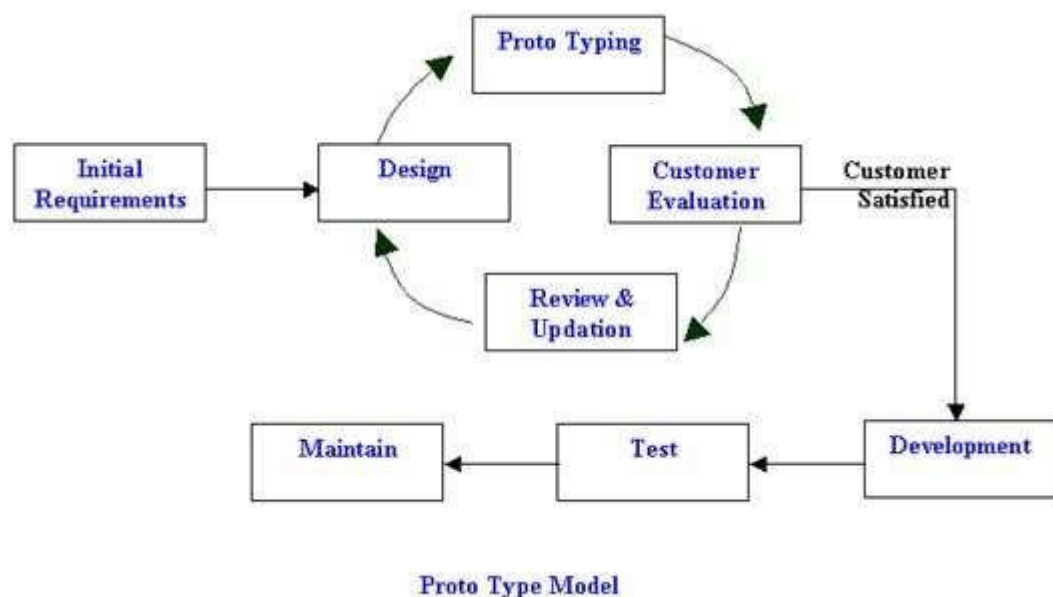
Figure 3.1: a prototype for ams?

Phase 1:

Identify Initial Requirements: Get arrangements of some major prerequisites which characterize the requirement for the new framework including the principle input yield data. Before making any site or a mobile App, it is important to visualize the format, plan and all elements planned to be fused. Likewise, how clients will

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communicate with each page and symbol and how the site/App ought to perform (conduct, load time and so on) Prerequisites are the essential credits in the framework, an explanation that recognizes an ability, trademark or quality factor of the framework to have worth and utility to the clients. When the necessities are set, engineers can start the other specialized work including framework plan, improvement, testing, execution, and activity.

In this phase we will get the initial requirement About Alumni management system from the management of the college.

Phase 2:

Develop Initial Prototype: Develop a fundamental starting model which just has UI screens. Different tools are used to develop the initial prototype which represent the working model of the Alumni management system. After developing the initial prototype it will give to the user to test the system.

Phase 3:

Review Prototype: End clients and college work and analyze the model and give criticism to upgrades/improvements. After developing the initial prototype this will hand over to the admin and users, they use the system for short period of time and give the feedback and criticism to tell the issues and drawbacks to the developer for betterment of the system.

Phase 4:

Revise and Enhance the Prototype: Scope is changed based on feedback from end users and the prototype is enhanced and refined to accommodate user feedback. Once the user give us the feedback about the system the developer team start working on it again to overcome the drawback which are mentioned by the clients.

Phase 5:

Testing: System testing is the cycle where the system goes through test testing to make sure that the system doesn't fizzle for example to check whether the necessary system is running as per detail what's more, client assumption. System testing

likewise tests to discover errors between the system and its unique evenhanded, current detail and system documentation. Consequently generally valuable and functional methodology is with the agreement that testing is the most common way of executing a program with the express expectation of discovering mistakes that is making the program fizzle.

Phase 6:

Maintenance: Maintenance is important to dispose of mistakes in the working system during its functioning life and to tune the framework to numerous varieties in its workplace. Frequently little system inadequacies are found as a system is brought into activity and changes are made to eliminate them. System organizers should consistently anticipate asset accessibility to do these Maintenance capacities. The significance of support is to keep on carrying the new system to guidelines.

3.5. WHY USE PROTOTYPE MODEL

Prototype model utilized when the ideal system needs to have a ton of interactions with the end users. Commonly, online system, web interfaces have an extremely high measure of communication with end clients, are most appropriate for Prototype model. It may take some time for a system to be fabricated that permits convenience and necessities negligible preparing for the end client.

Prototyping guarantees that the end clients continually work with the system and give an input which is consolidated in the model to bring about a useable system. They are amazing for planning great human PC interface system.

We choose this methodology not to improve previous system but there is no Alumni management system before this system. So the goal of choosing this methodology is to develop a successful Alumni management system by making prototypes. That's mean to improve the system, find errors and drawbacks at every stage and make it perfect then move toward the next step. This will help to develop a perfect error free and according to client's requirements system.

CHAPTER FOUR

IMPLEMENTATION

4.1. SYSTEM DEVELOPMENT PLATFORM

System Development Platform Hardware used to develop this system is just a simple windows 7 machine which 4 GB of RAM, 260 GB of HDD and AMD E27110 processor. We need to install some software on our system that will be crucial in developing this project. We would need to install XAMPP to host the server locally. We would be needing a text editor like VS Code for editing code. One can use IDEs like Visual Studio as well as code editor.

4.2. SYSTEM DEVELOPMENT TOOLS

This will be a website so we need to deploy a hosting server. A computer with an internet connection, a software platform to write codes, some libraries, IDEs that will be used for the development, and a browser to run the application. In our case we will use the following:

• Code Editor/IDE: VS code.

• Markup language: HTML.

• Scripting language: PHP, JS, JQuery, AJAX.

• Style Sheet language: CSS

• Database programming language: SQL

• Database Management System: MySQL

4.2. USER INTERFACES AND MODULES

This system is divided into two sides

– Admin side, Alumni/Student side.

☐ ADMIN SIDE

- Admin can manage and generate department login for various departments.
- Admin can manage alumni list and can also add events, news and notifications for alumni.
- Manage Jobs posted by Alumni.
- Admin can monitor Alumni Discussion forum
- Admin can also compose mail with inbox and outbox facility.
- View Reports with Export to Excel & Print List facility.
- Upload photos, videos and many more.

And also has some unique functions such as:

- **Admin Login Page**

  The page where system admin will submit their system credential to access and manage the system data.

▪
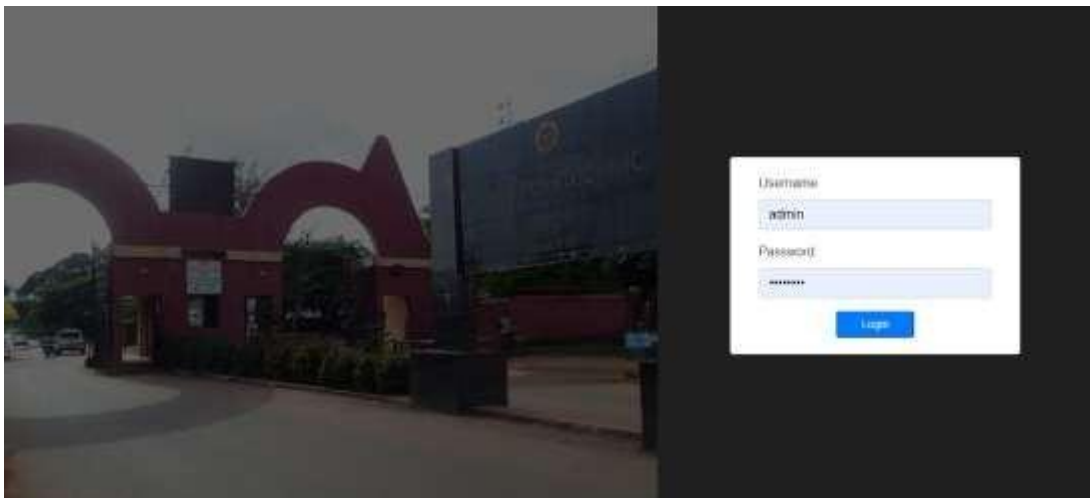
Admin Home Dashboard

The page where the admin user will be redirected by default after logging into the alumni management system admin side. This page displays the summary or total counts of alumni, posted jobs, forum topics, and upcoming events.
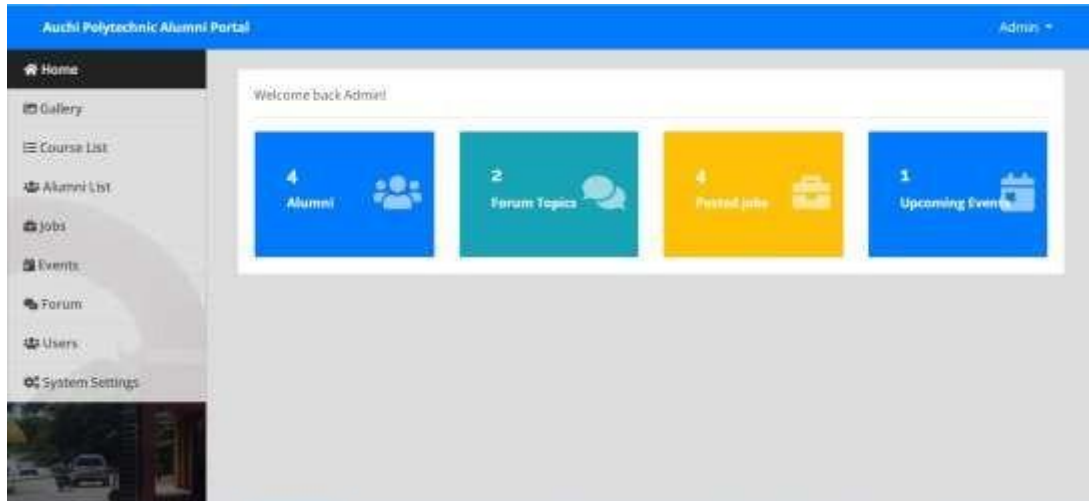
▪ **Admin Gallery Page**

The page where the admin user will manage the gallery images and data for the website.

▪
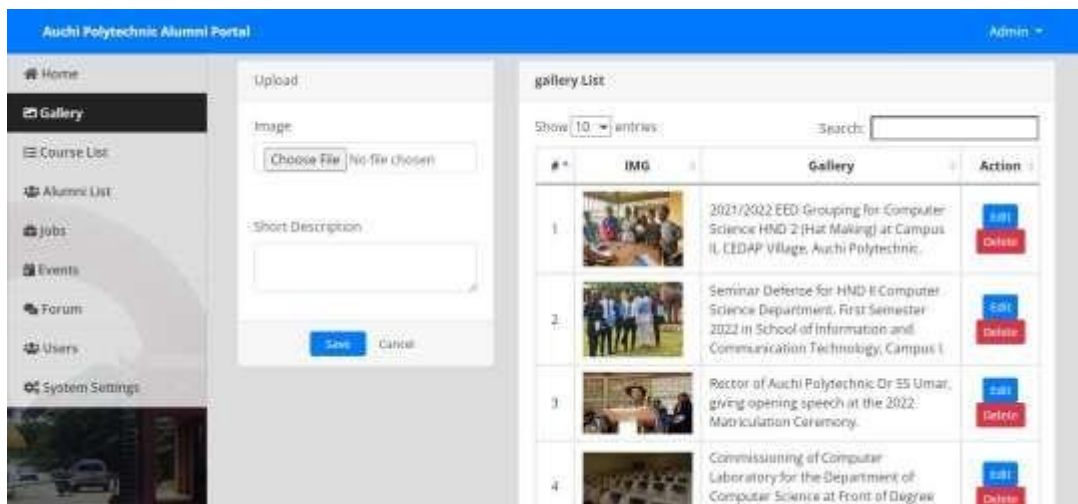
Admin Course Listing

The page where the admin will populate and manage the university or college school's courses.
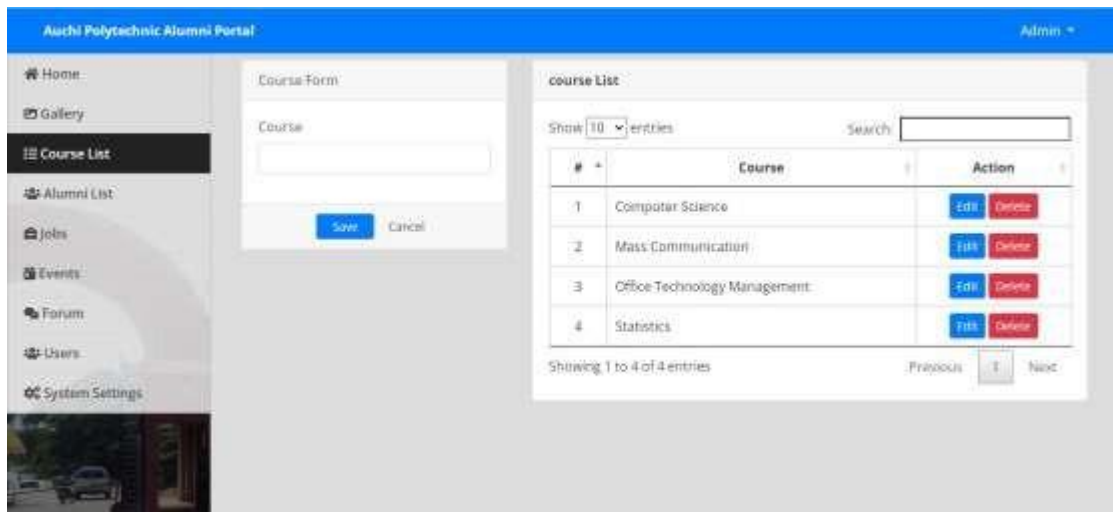
▪ **Admin Alumni List**

The page where the alumni list in the system are listed and this the page where can the admin verify the alumnus/alumna's account.

.
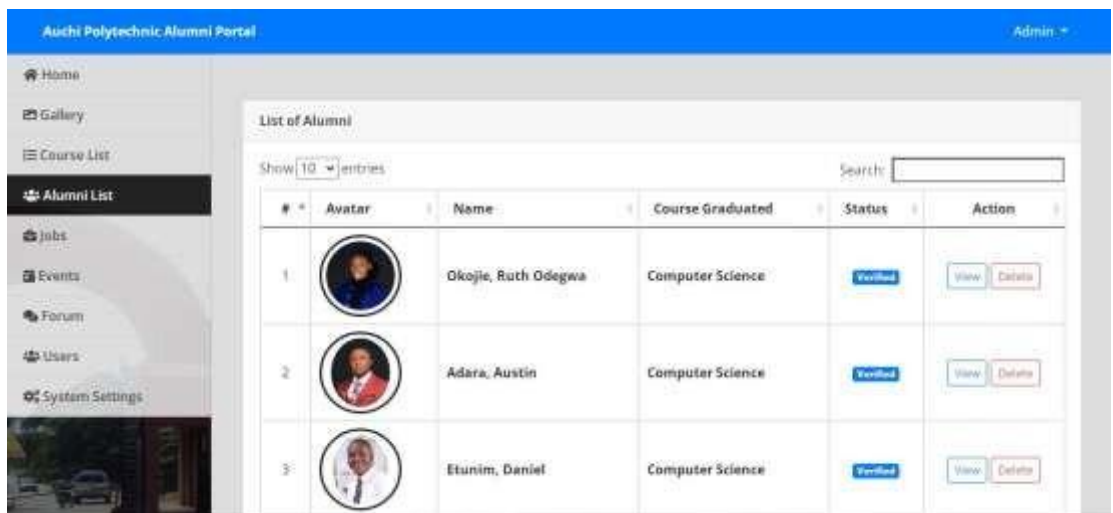
Admin Jobs Page

The page where all posted jobs are listed and can be managed by the admin.

Events Page

The page where an admin manages or posts an upcoming event of the school where can alumni can participate.

■

Forum Page

The page where all forum topics are listed along with the count of comments if this topic is being shown.
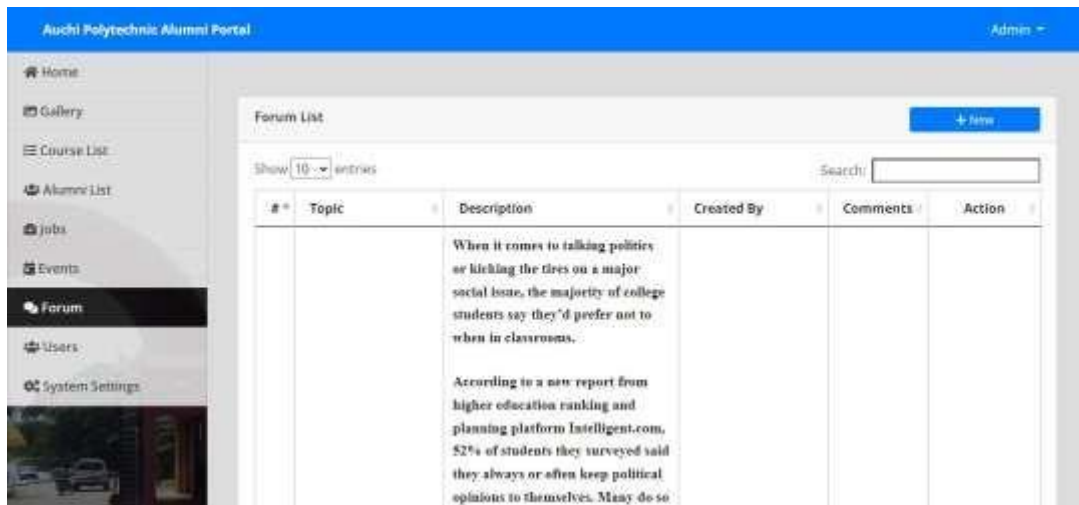
- **User Page**

  The page where an admin user manages the system users.
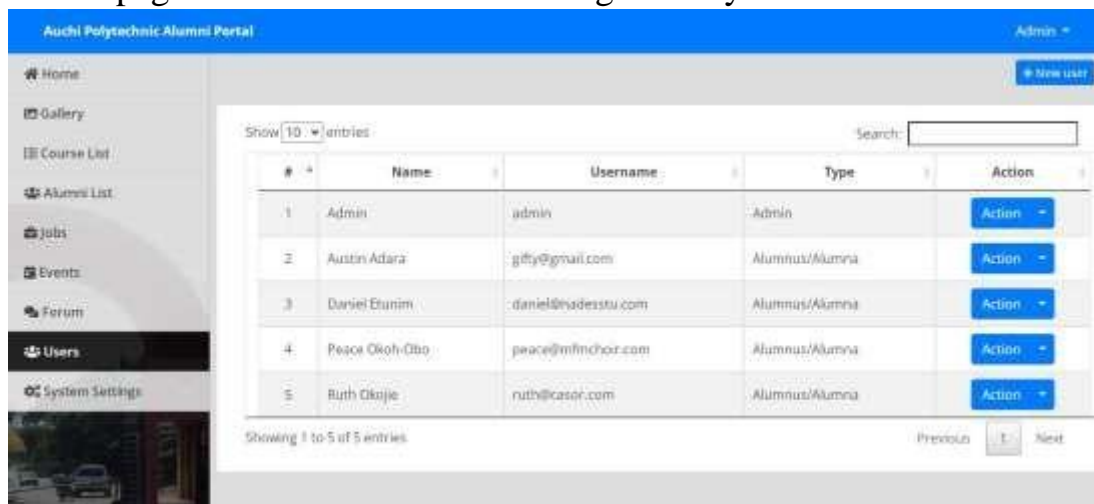
▪
System Settings Page

The page where an admin setup or manages the school information to be shown on the website.
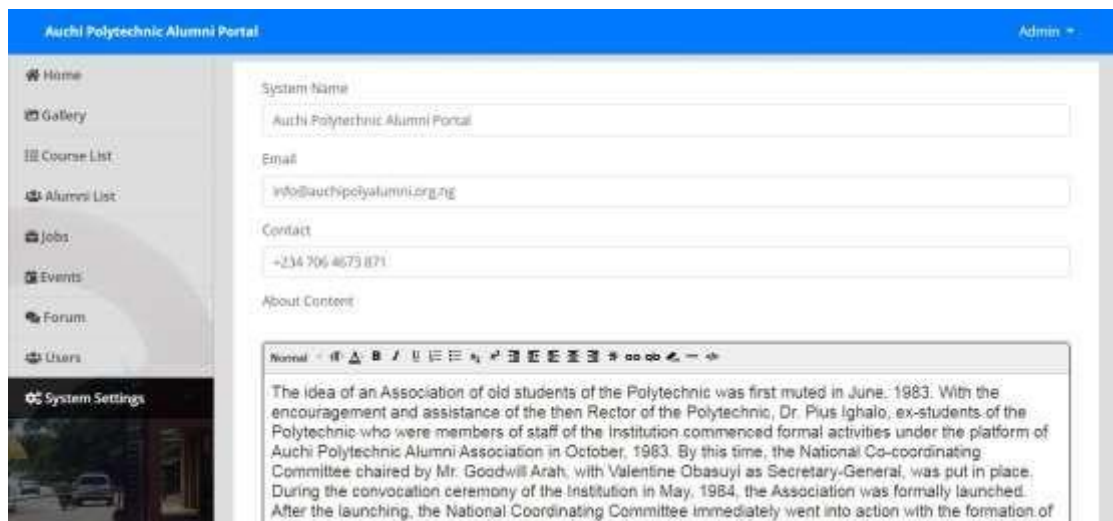
 ALUMNI SIDE

- Alumni can invite other alumni for events and get – together.
- Compose Mail to Admin, with inbox and outbox facility.
- Alumni can also Post Jobs and Internships.
- They can also search Alumni data using different searching fields.
- Add questions and reply on discussion forum
- Upload Documents like Educational Document or Employment Letter.
- Add Photo Gallery

And also has some unique functions such as:

▪
Home Page

The default page where the user will be redirected when browsing the website and after logging in. This page shows the list of upcoming events.

▪ **Login Page**
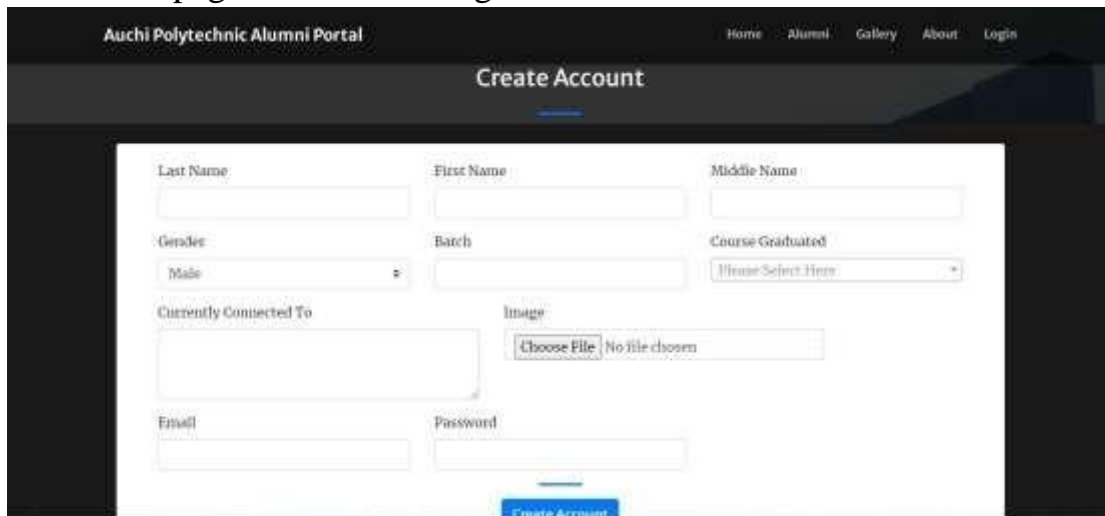
The popup modal where the user submits their system credential in order to access and manage the other feature or functionalities of the system.

•
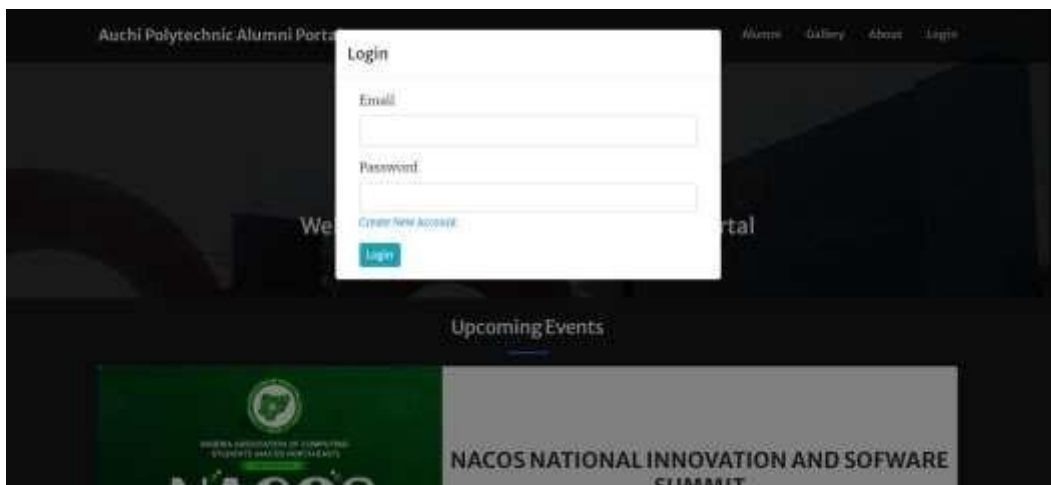
Signup Page

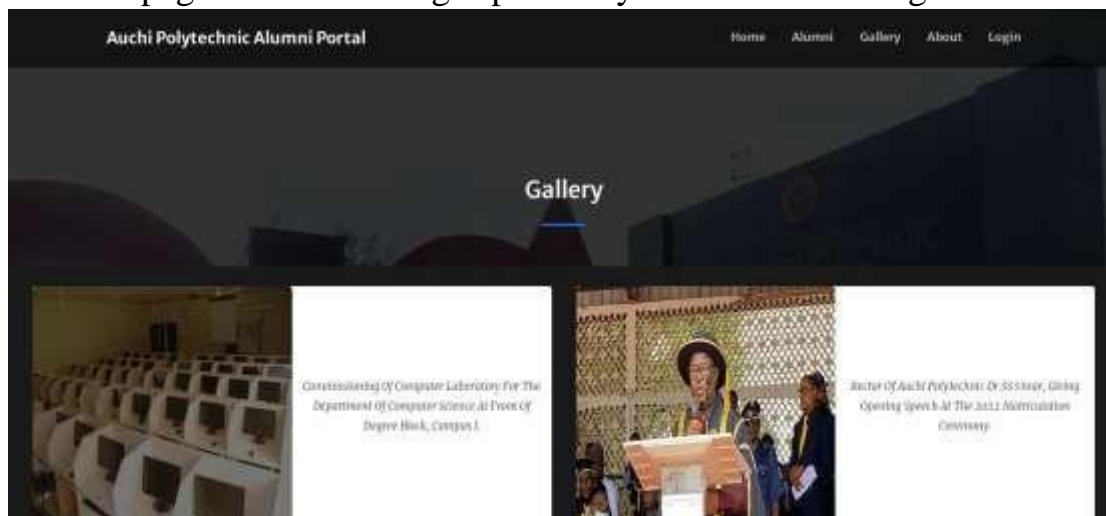The page where the unregistered alumnus/alumni submit their credentials.
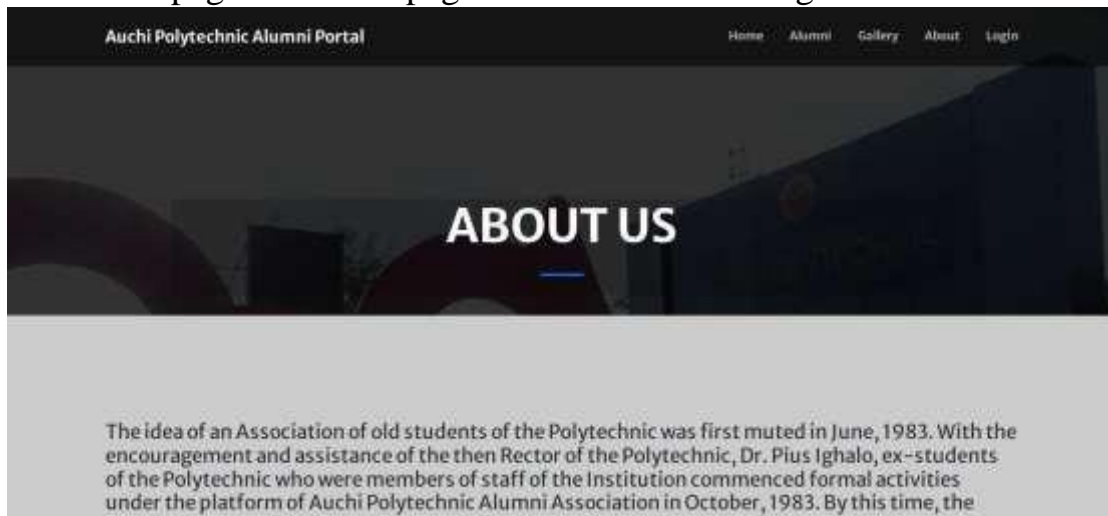

• **Gallery Page**

The page where the images posted by the school's management is being shown.
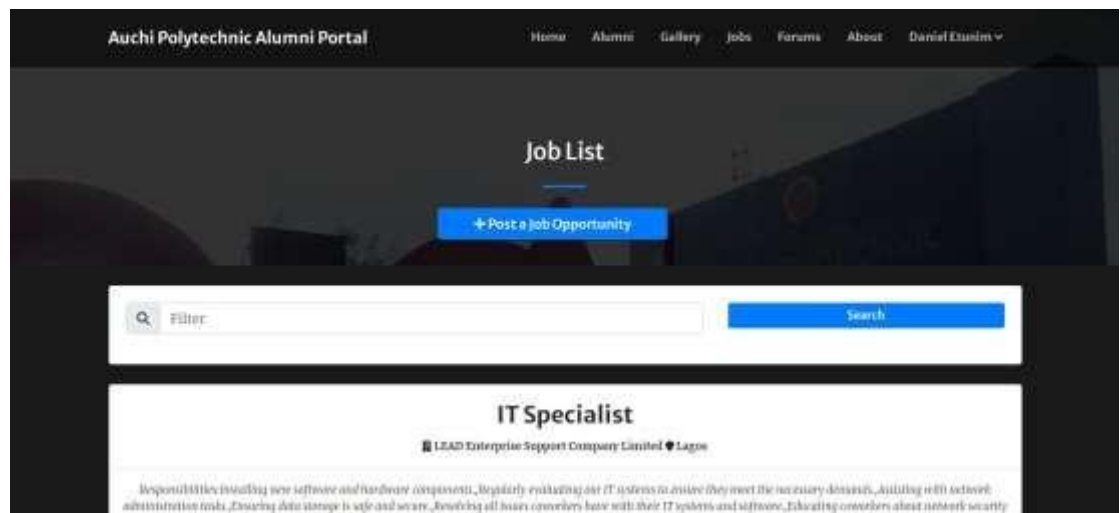
▪

About Page

The page where the page about content is being shown.

▪ **Job Page**

The page where all posted job opportunities are listed.

-

Forum Page

The page where that forum topics are listed and the user can join or read the comments by selecting and viewing a topic.

-

▪ Account Management Page

The page where can the user update his/her system credentials and information.

4.3. DISCUSSION

In this research work, design and implementation of a web based Alumni Database Management System, all necessary efforts and analysis were implemented in order to develop a suitable database management system that will solve the problem faced by the Institutions alumni department, by efficiently reducing the time taken in storing varied information of the numerous alumni in files and cabinets that are almost insecure and stressful to access.

This research work focused mainly on using resources available to it to model and design a computerized web based database management system developed to handle the data requirements of the Auchi Polytechnic alumni association. The basic requirements for the system included the collection and storing of alumni data for quick and efficient retrieval, as well as providing an automated mechanism for the updating of the stored data.

A suitable system methodology was adopted during the design of this system after a detailed examination and analysis of the existing system was carried out, hence paving way for the design and implementation of the new system. This new system addresses the shortcomings currently experienced in the way data are being collected, processed and managed within the Alumni Unit.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. SUMMARY

The existing study above shows that alumni management system contributes to a good relationship between alumni and their institutions. The existing studies designs and implementations is a web-based Alumni management System however our system informs only the alumni of the Auchi Polytechnic Alumni Association and enable them to interact with each other. It also provides career service opportunities to all the graduates of the institution.

Based on their research into alumni management, the following writers came to the same conclusion. According to the study and related literature, an online alumni management system will aid in the processing of the system in a quick and easy manner. They created a system with the same goal in mind: to make system processing as simple as possible. Their research was supported by the use of a web application. The Institution students and administrator can access the system very easily.

5.2. CONCLUSION

This Alumni Management System was designed and developed for fast and easy way of handling alumni information. It reduces error usually encountered in the management of large and varied data from different sources. In essence, the software is designed to help the management handle processes of storing, retrieval and updating of alumni information of Auchi Polytechnic, Auchi. The software eliminates data redundancy as it will also keep alumni information organized under managerial control no matter how disparate, fast changing or intricate the information may be.

The system is a web based system that will enable alumni to register their information in the system irrespective of their locations. They can also make

modifications on their profiles with a proper authentication and approval by the system administrator.

Suggested Areas for further studies: This work covers most aspects of alumni information management and it is restricted to auchi polytechnic alumni association. The suggested areas for further research include extending the work to integrate the other campuses of the institution. The research could further be extended to other higher institutions within the country and worldwide.

5.3. RECOMMENDATIONS

This software is recommended to all alumni departments of all higher institution though the scope of the study is limited to Auchi Polytechnic Alumni Association, Auchi. The Software is recommended for the following reasons:

1. With this Alumni Management System, it is easy to classify and reclassify data thereby reducing duplication of efforts of the staff or personnel.
2. The system is easy to understand and it is user friendly.
3. The system has an integrated search engine mechanism which makes user experience fast and efficient.
4. The Alumni Management System is a web based system, therefore there's no geographical restriction or barrier.

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