

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Islamic University of Technology (IUT)

The Organization of the Islamic Co-operation (OIC)

NIGERIAN INTERNATIONAL SCHOOL WEBSITE

By

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CERTIFICATION

This is to certify that the work presented in this thesis paper is the outcome of the investigation carried out by the candidates under the supervision of **Mr. Md Arifur Rahman** lecturer Department of computer science and Engineering Islamic University Of technology (IUT), Gazipur. It is also declared that neither of this thesis nor any part thereof has been submitted anywhere else for the award of any degree or diploma or for any publication.

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Thank you.

ABSTRACT

In the early days the management of such systems was not easy and dynamic due to the lack of today's technology; therefore the implementation of this website has come with some enhancement to improve the earlier disadvantages.

The main objective or better still the aim of this website is to make it easier for the users (Students, Staffs and User) to access useful resources such as digital library, admission form, admission requirements, and view admission results. All these thanks to the very powerful and innovative evolution of sophisticated Information Technologies as exemplified by the rapid and dynamic growth of the Internet. Our website provides all the common facilities that a typical online Administration does; namely: a full-fledged interactive Digital Library in addition to the usual amenities that all websites provide such a home page, contact us module etc. Besides, another prominent feature of our website is an attractive gallery of photos implemented with J-Query that looks aesthetically appealing to the users (Students, Staffs and Student). The system is web based which by the way provide the applicants with many advantages. We need to note that most of the learning institution now are using web as a way to communicate. The communication is not the only advantage but many other advantages are considered such as the availability of the system and flexibility for the users to be able to interact with the system at any-time, anywhere.

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Chapter 1

Introduction

1.1 BACKGROUND

Education is the building block of any nation's economy. We must ask ourselves how to manage, promote and contribute to the development of education.

Education in Nigeria is more of a public enterprise that has witnessed government complete and dynamic intervention and active participation (Federal Republic of Nigeria, 1981). It is the view of the formulated education policy in Nigeria to use education as a vehicle in achieving national development. Education being an instrument of change, in Nigeria education policy has been a product of evolution through series of historical developments.

Also Students of nowadays suffers from different problems to access the stated programs, ranges from lack of awareness, and the difficul-ties in application. Now a day due to the development in information technolo-gies there is need to apply these technologies to tackle the stated problems. The ultimate goal is to design a system that can help students from every part of the world to know about NIS learning institution; upon which student can apply directly to any desired program online.

1.2 PROJECT OVERVIEW

I think that system of education today realize the importance of having an online presence whether that be through a website, or a Facebook page, or a Twitter profile, etc. If your institution does not have an online presence, the chances are you could be losing valuable business and customers to your competitors who do have effective and active online presences.

The relationship between education and development has been established, such that education is now internationally accepted as a key development index. It is in recognition of this importance that the international community and governments

all over the world have made commitments for its citizens to have access to education.

1.3 PROBLEM DESCRIPTION

NIS is a very big website that provides various programs which enable student and user to access website easily. Also Students of nowadays suffers from different problems to access the stated programs, ranges from lack of awareness, and the difficul-ties in application. Now a day due to the development in information technolo-gies there is need to apply these technologies to tackle the stated problems. The ultimate goal is to design a system that can help students from every part of the world to know about NIS learning institution; upon which student can apply directly to any desired program online.

As we search lots of websites of different institutions we found that there was no much interaction between user and management and there was no much information about the services and information of those institutions. In most of those websites there was only information about the institutions; even the users are not able to know the information of the institutions.

We decide to make a website or a system to have all above properties and to have a better communication system and with will make the website to be accessible easier.

1.4 NECESSITY OF THE PROJECT

The Internet Age that we are now is in full mobile. However, many institutions owners have yet to adopt the methodologies of this internet era. In fact, quite a few institutions owners do not even have a website for their schools.

1.5 WHY DO WE NEED A WEBSITE

In today's world, Users are more and more likely to expect an institution to have their own website. In the eyes of a user's, having a website is a measure of viability, of stability.

In short, if you do not own a website, then your users might not take you quite as seriously as they would if you did, that is the necessity of having a website for your institutions.

Another excellent reason to have a website for your institutions is that it provides you with numerous options for cost effective saving you some money for manual display of information.

Simply having a website gives you a spot in search results for your targeted keywords, no matter how small your target is you will just find it in a minute and preview it.

In addition, having a website provides your current and potential users a means by which to measure your worth to their needs, without actually having to visit your institutions in person.

Beyond the importance of simply having a website though, it is important to have an effective website, one that is an asset to your business and that pays for itself in the amount of business or user it converts.

1.6 SYSTEM COMPLEXITY

This difficulty is not unconnected with applicant Multiple applicant complexity in that administrator are the users that have the overall power to view the number of applicant, approve applications and decline applications.

The system has a well organize database which handles all the data enter by applicant and retrieve by administrator. One more thing is that admin has overall power to update other sections of the website such as news, Gallery, and information etc. Once again another difficulty we need to mention is based on the overall system implementations which include the following.

1. Applicant Registration process
2. Flow Control
3. Dynamic Webpages
4. Mailing System.

1.6.1 MULTIPLE APPLICANT COMPLEXITY

Let shortly discuss about the multiple applicant complexity. As stated above, this complexity is because of we are dealing with unlimited number of visitors that can access the vast information in our website and also apply instantly for any desired NIS program. Applicant can access information such as, information about NIS institutions.

1.6.2 ADMINISTRATION COMPLEXITY

This difficulty is not unconnected with applicant Multiple applicant complexity in that administrator are the users that have the overall power to view the number of applicant, approve applications and decline applications. Application approval can be done by admin with mailing of applicant. The system has a well organize database which handles all the data enter by applicant and retrieve by administrator. One more thing is that admin has overall power to update other sections of the website such as News, Gallery, Library and other information institutions.

Chapter 2

Preliminary Study

2.1 INTRODUCTION

Designing a system includes a number of procedures. So before anything is done we need to know first about the problem by doing a procedural analysis. Due to design requirement we first need to analyze the system before any implementation. During this analysis phase we may have ideas that may be modified during the implementation phase. That means analysis consist of the study of the system , its behavior and requirements but still some errors may be there which have to be corrected due to some condition during the implementation phase.

2.2 DEFINITION OF NIGERIAN INTERNATIONAL SCHOOL WEBSITE

The idea of the Nigerian international Website was born out of the need to help student from different part of the world to come and study different programs.

The website helps visitors to access information about NIS learning Institution with different departments, upon which one can apply for the desired NIS program directly online.

2.3 ADVANTAGE OF THE SYSTEM

NIS website offers the following advantages:

- **Access to information:** - The NIS website helps students/ visitors to access vast information about NIS and NIS programs.
- **Easy application process:** - The website allow student from different part of the world to apply to any program directly online, thus it ease application process.
- **Security:** - As students are to apply directly online, the system help in securing student document/ transcript. Unlike before where student are sending their document/ transcript though courier services which can be lost easily.

2.5 SYSTEM DESCRIPTION

- **User registration:** - Before a user can apply he/she must register to the system by filling user registration form.
- **Application process:** - To apply for NIS our system provides user friendly interfaces that enhance scalability during application process. For all applicant Users are to fill all the following forms:
 1. **Personal detail:** -User has to provide his/her personal information such as first name, last name, and fathers name.
 2. **Contact detail:** - Applicant will be asked to provide his/her contact information such as phone, email, and address.
 3. **Education detail:** - Applicant will be asked to provide his/her education background such as level, certificate obtain, and CGPA obtain.
 4. **Require document:** - Allow users to upload their transcript/document and photo together with their CV.
 5. **Next of Kin:** - Allow users to provide the name of their next of kin in case of emergency.
- **Manage applicant:** - In this section administration as the right to view list of applicant and to approve or decline.
- **Mange news:** - Administrator is allowed to update or delete news.
- **Admin Login:** - Administrator can be able to log in by providing user name and password, the admin can also be able to manage news, manage library and also approve and declined applicants.
- **Student Login:** - Students can be able to log in by providing user name and password, the student can be able to view updated news and be able to have access to the library section.

- **Library:-** This section is managed by admin, the student can borrow and return any book from the library by filling a prescribed form provided the admin can approve and decline borrowers' applications depending on the number of books available.

- **Academics:-** This section provides the information of academic structure of NIS and consists of the following:
 - **Undergraduate:** This section provides the details of information on the programs offered by NIS, allowing students to make some individual choices within the specialty.
 - **Provost:** The Provost ensures that the members of faculty provide students with the best possible education using the "Nigerian style" of pedagogy to inspire the students to critically analyze the information presented to them, not only for its content but also for its context and applicability toward their career of interest.
 - **Registrar:** - A school registrar serves as the administrator responsible for student records and class enrollment. A high degree of technological proficiency is often required for this position, and a graduate-level education is typically a prerequisite to employment.
 - **Course Catalog:** - In this section, students maintaining continuous enrollment at any public Nigeria community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect during subsequent terms of continuous enrollment.
 - **Summer Programs:-** The main objective of this section is to close the perceived gaps in foundational knowledge that causes most Nigerian students to struggle in the difficult science, engineering and medical courses in their first years at University, but most importantly, to prepare them for successful transition to University and give them a competitive advantage.

2.6 SYSTEM MODULES

A system module is a system unit designed to solve a specific problem of the system. NIS website Scheme module has the same idea. NIS website Scheme module combines together functions and/or methods to develop one entity of the system. The following options are the main modules of NIS website Scheme.

- **Application Management Module:** This is a section which is responsible for managing all the application that is sent to the admin, Admin can check and review the applicant credentials on whether to Accept or declined his application.
- **User Registration Module:** This is a section which allows the user who wishes to apply to the school to apply for what he wishes. There are three types of users who can apply to the school: Student, Teacher, Cleaner and Security
- **News Management Module:** This is a section which deals with updating and deleting news, in our system only admin has the responsibility of uploading and deleting news and also how the news information is passed to the user.
- **Library Management Module:** This is a section is also managed by admin, its allows the student to booked available books by providing their user id and password in which a student has to fill a prescribed form, admin is also responsible for uploading books and managed the whole library.
- **Department Management Module:** This is a section that provide available information regarding NIS departments, in our system we have three main departments:
 - Science: it's a department in NIS that's deals with science related courses in various disciplined, a user can view all the information regarding science department.
 - Art: it's a department in NIS that's also deals with art and history related courses in various disciplined, a user can view all the information regarding science department.

- Engineering: it's a department in NIS that's also deals with engineering related courses in various disciplines, a user can view all the information regarding department.
- **ARTICLE MANAGEMENT MODULE:** This section allows student and teachers to write their article news in various fields of interest, after writing they have to send the article to the admin, the admin is responsible for uploading the article after checking whether it's useful or not

2.7 NIS WEBSITE USER SCHEME

In previous chapter, we briefly discussed about the complexity that exists due to the large number of different users of NIS website. Basically the system handles the following user types:

- Administrator User
- Guest User
- Applicant User
- Student User

2.7.1 ADMINISTRATOR USER

Administrator user carries out the update and the full control of the system. They deal with the technical issues of the system, as such for security reasons we have limited the number of administrators.

2.7.2 GUEST USER

A guest user is a user that visits NIS website and leaves without applying, he/she just navigates through the website and leaves.

2.7.3 APPLICANT USER

These are type of users who visit, register in NIS website and apply for a particular program in the institution. They can be Teachers, Cleaners and Security.

2.7.4 STUDENT USER

These types of user are student who already apply and register with the institution, they can have the access to borrow books and return the books to the library

2.8 NIS WEBSITE USER TASKS

As mentioned in above sections, the NIS scheme website allows many user to interact with a system features the following sections represent the task that every user perform except the guest user.

2.8.1 Administrator

Administrator ensures that the system is running properly. He also has the full control of the overall website activities such as:

1. News
2. Applicant List
3. Approve or Decline Applicant
4. Document Management
5. Library
6. View And Approve Teachers Articles
7. Mailing Applicant
8. Student and teachers Articles.

News: - Administrator ensures that the system is running properly. He also has the full control of the overall website activities such as:

The administrator can explicitly create/ add news about NIS. The admin also can update the already posted news or delete it entirely if he so wishes.

Applicant List: - All the list of users that apply to NIS program can be viewed by admin administrator together with some basic information like student first name, second name, and country of origin. He can also View teachers, Security and Cleaners Applicant.

Approve or Declined Applicant:- After viewing the list of applicant as stated earlier, the admin can approve or decline application by sending an email to the successful applicant notifying him that he has been admitted to a particular program the same procedure is applied to both Teachers, Security And Cleaners Applicant.

Document Management: - Applicant is requested to upload their document during the application process. The administrator can down-load such document for his perusal and necessary action.

Library: - The administrator has the responsibility of managing the library, he can add new books, view available books and book list, view return books, view borrowed books and also the list of borrowers.

View and Approve Teachers Articles: - Teachers can send their written article to the administrator. He has the responsibility of posting the article to the website.

Mailing Applicant: - To notify an applicant about his success in securing admission. This system provides emailing system for that purpose where an administrator can send an admission letter to the applicant via his/her email address.

2.8.2 Applicant User

Applicants are the primary users of the system and so their tasks are very important to the overall system. Below are some of the basic application user tasks.

- Register as the user
- Select program to apply for
- Provide personal information
- Provide contact information
- Provide educational information

- Provide other information
- Upload document
- Provide Next of kin Contact information

Chapter 3

Feasibility Study Overview

3.1 FEASIBILITY STUDY IN BRIEF

A feasibility study is defined as an evaluation of an existing system and a way of selecting the best system that meets performance requirements. This entails identification, description, evaluation of candidate systems and selection of the best system for the job. The feasibility study is conducted once the problem is clearly understood. It is a high level capsule version of the entire system analysis and design process. The core objective of feasibility study is to determine whether the proposed system is feasible or not and it helps to minimize the expense of how to solve the problem and to determine, if the problem is worth solving.

The feasibility of the proposed system can be determined if the following are accomplished in different phases.

- i. To create an efficient and effective backup system so that important information is never lost.
- ii. To maintain a computerized database for the website

In practical terms, while doing feasibility study, there are a number of tests that are to be performed as part of caution, better determination of favorable features and assurance of accuracy of the proposed system.

The following is a summary of the different feasibilities carried out in developing the website:

- i. Technical feasibility
- ii. Economic feasibility
- iii. Operational feasibility

3.2 TECHNICAL FEASIBILITY

In the technical feasibility study, we had to test whether the proposed system can be developed using existing technologies or not. It is planned to implement the proposed system using PHP, JavaScript, CSS and HTML.

The project entitled E-Administration of NIGERIAN INTERNATIONAL SCHOOL. Is technically feasible because of the following reasons:

- i. All the necessary enabling technologies exist to develop the system.
- ii. Existing system is so flexible that it can be easily developed and modified.
- iii. System requirements, both hardware and software is readily available and affordable by the members of the School.

3.3 ECONOMIC FEASIBILITY

Launching a website for a NIGERIAN INTERNATIONAL SCHOOL involves a great deal of financial issues which needs to be considered and given proper considerations. Many systems fail to reach their destination due to lack of proper budgeting and utilization of resources. A School should only adopt a new system if the cost-benefit analysis gives out a positive response even though the initial expenditure might look greater.

In short, the project is economically feasible only if tangible and intangible benefits outweigh the cost and we can say the proposed system is feasible based on the following conclusions:

- i. The cost of developing the full system is reasonable and within the reach of all the users put together.
- ii. The cost of hardware and software for the application is very minimal.
- iii. System requirements, both hardware and software are easily available and economically sustainable in the short, medium and long term as well.

3.4 OPERATIONAL FEASIBILITY

In our NIGERIAN INTERNATIONAL SCHOOL website, we used MySQL database. Much of the dynamic content in the website comes in real-time using the data fetched from a database. The specific information presented to a member at the member's panel or interface is created dynamically after the user has made a request. To accomplish this operational exigency, the following steps were taken:

- i. A large database rich in content is queried
- ii. Relevant data are extracted from the database
- iii. The extracted data are organized as a content object
- iv. The content objects are transmitted to the client's environment for display.

As a result we have designed the database to keep the efficiency and performance of the whole application at optimal levels.

Chapter 4

System Analysis

4.1 INFORMATION AND RESOURCE GATHERING

Strategies we have followed to gather information include:

4.1.1 Provost

The school provost is the highest-ranking administrator in a Nigerian International School. Provosts are responsible for the overall operation of their schools. Some of their duties and responsibilities are delineated in state statutes. Regions and school districts have also set expectations for provost through their provost evaluation criteria and procedures.

With schools facing increased pressure to improve teaching and learning, the duties and responsibilities of provost expanded further to include the responsibility for leading school reform that would raise student achievement. Success in leading reforms to increase student achievement often hinged upon a provost's ability to create a shared vision within the school community and success in implementing new organizational structures that engage teachers in shared decision-making. Provost have discovered that engaging the entire school staff in making decisions results in more commitment to school reform initiatives.

Responsible for involvement in the academic process, including supervision and instruction.

1. Responsible for contributing to the optimum attendance of all students through close communication with parents, teachers, students and counselors.
2. Responsible for developing a sound discipline process on student behavior.
3. Responsible for effective supervision of staff and students.
4. Responsible for effective public relations through continual positive promotion of the school and its students at all opportunities.

5. Responsible for effective usage of school supplies and for timely distribution, monitoring, and acquisition of proper and pertinent textbooks through close communication with department heads and teachers.

4.1.2 Registrar

A school Registrar works directly under the provost and helps coordinate, direct and plan the academic or auxiliary activities of the school. The Registrar manages the teachers, counselors, staff and students on a daily basis. Along with the provost, they review and approve or recommend modifications to new or existing programs and then submit their proposals to the school board. They prepare or oversee the maintenance of attendance records, personnel reports, planning and other activities. The Registrar coordinates or directs the use of all the school facilities.

Registrar meets with staff and parents to discuss policies, educational activities and a students learning or behavioral problems. He provides counsel and guidance to students regarding academic, personal, behavioral or vocational issues, along with enforcing attendance and discipline.

Common work activities include:

- Working closely with the provost on a daily basis to ensure the smooth overall operation of the school.
- Supporting committees of staff and parent that function to improve the learning and social environment of the school for the students.
- Teaching classes, developing rapport with the students, handling discipline issues and filling in for the provost when required.
- Resolving conflicts between students, teachers, parents or combinations of conflicts between various individuals.
- Assisting in yearly teacher evaluations, assisting in providing guidance to staff and students, and encouraging a positive climate in the school.
- Directing assemblies and other special gatherings of students for events throughout the year.
- Developing emergency response plans for schools as required by state and federal education agencies. Filing reports and updating as required.
- Record keeping as required through the use of various logs, tracking records, computer programs, inter or intranet software or other programs.

4.1.3 Director of Education

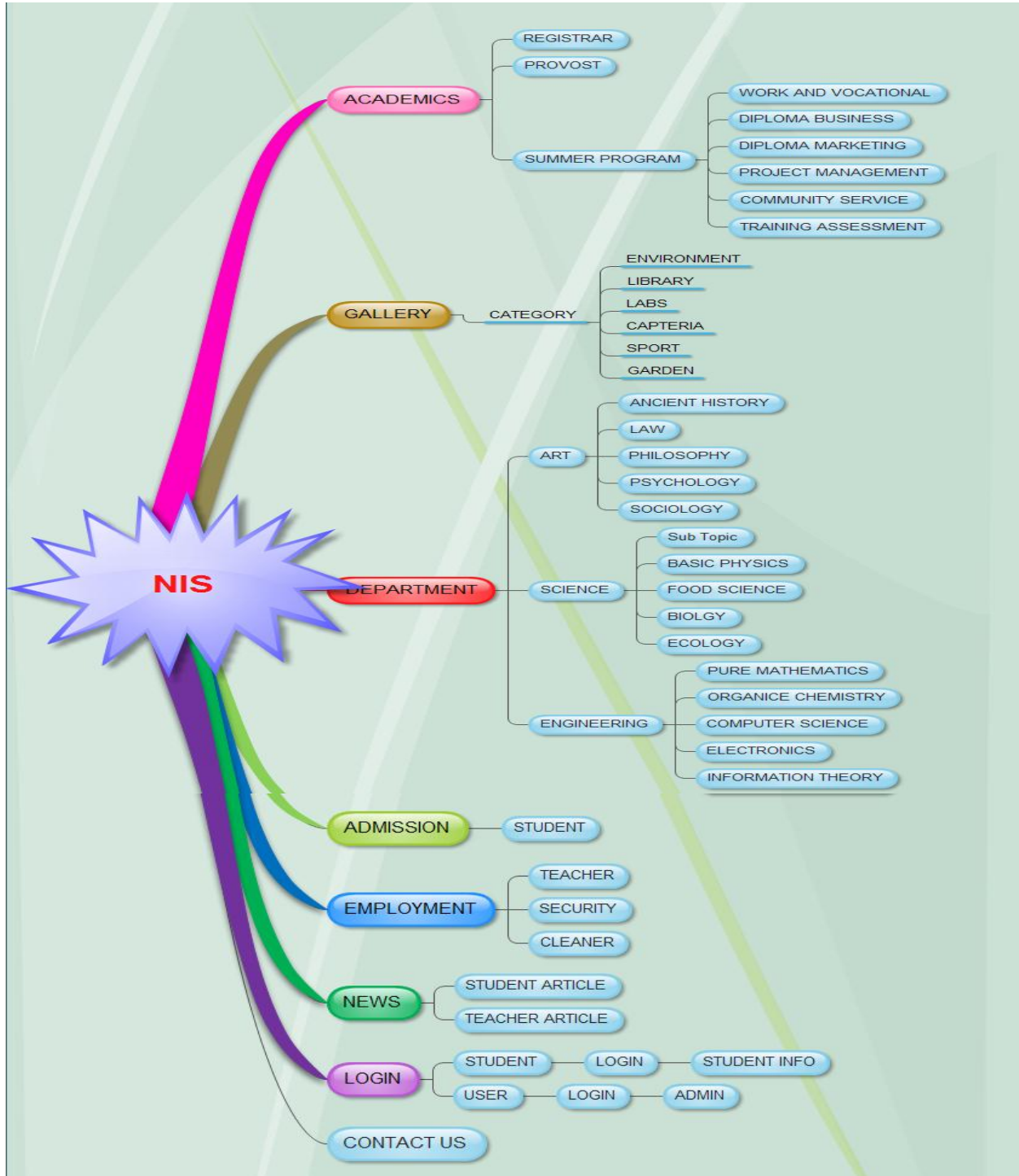
Education directors, also known as instructional coordinators, direct and shape the curricula and teaching processes in a school or school district. Some education directors run the educational programs at non-school settings, such as museums, businesses and non-profit organizations. They work with educational committees and advisory groups within the community to come up with the most appropriate curricula to meet the needs of their students.

Education Director's Duties and Responsibilities:

- Register and greet members and guests at membership meetings and expos.
- Survey members through face to face meetings and/or paper surveys on how to provide membership meetings that exceed member expectations.
- Work with local board of directors to provide speakers and topics for membership meetings.
- Provide Continuing Education Credit Hours (CE) for membership meetings and expos. Local Director may consult and work with State Director on CE issues.
- Provide information on professional designation along with setting up courses through self-study and/or web-based classes.

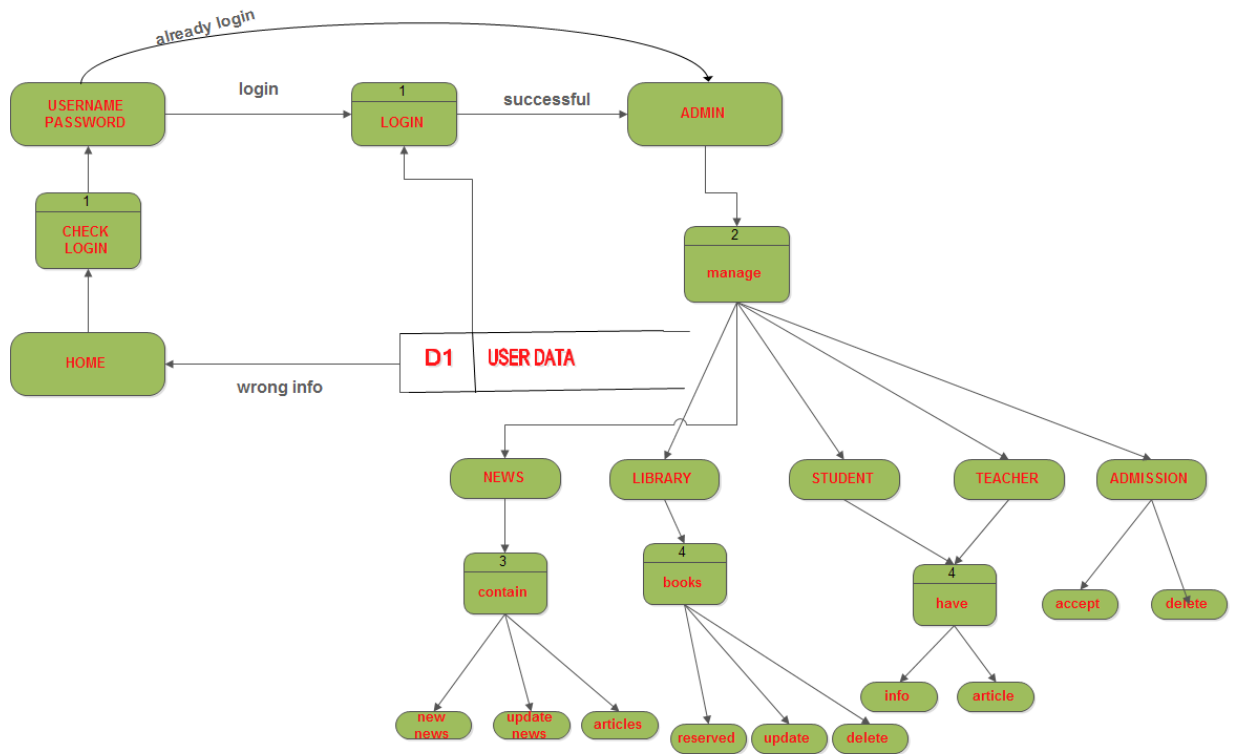
Chapter 5

NIS Website Structure SITE MAP



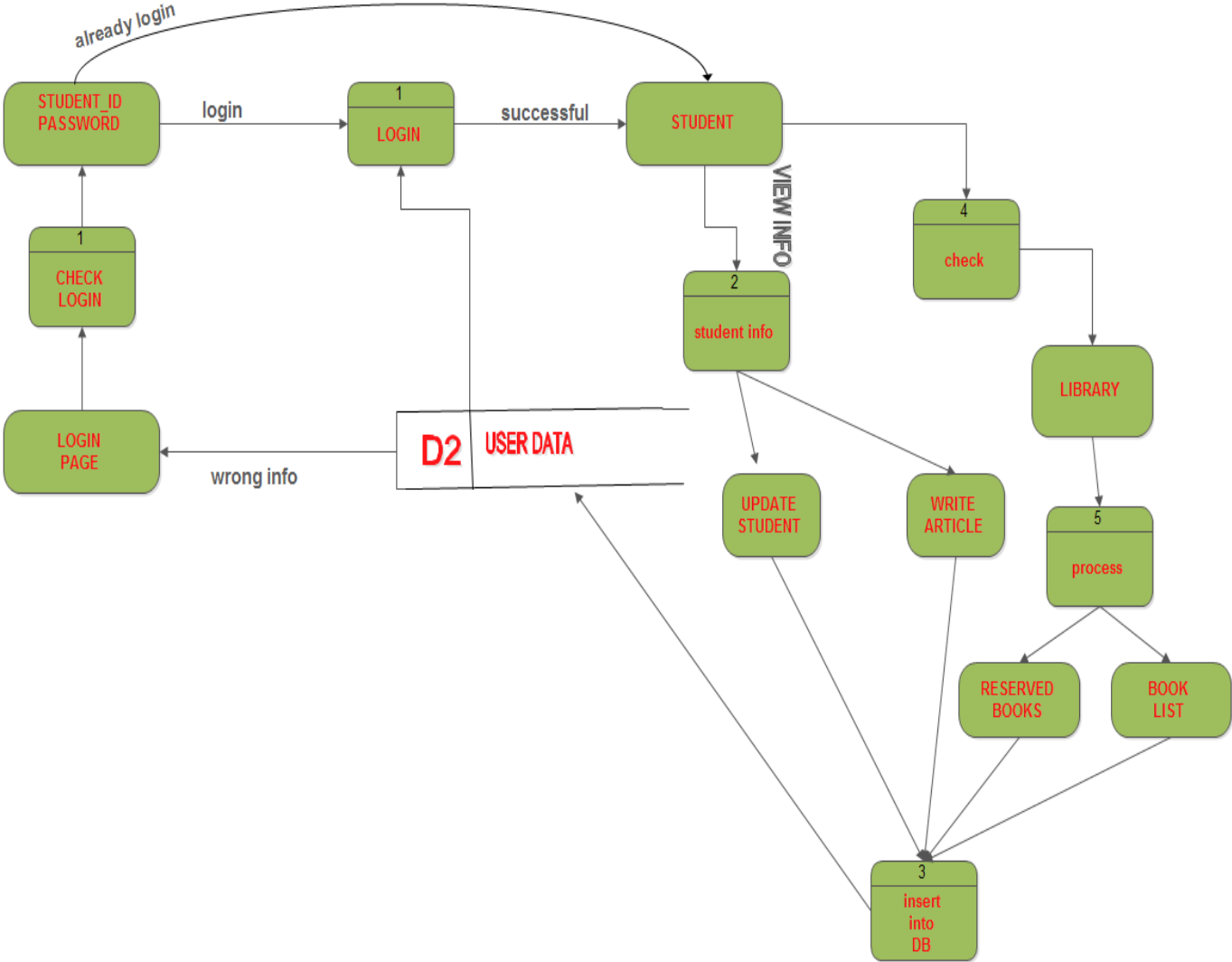
5.1 Data Flow Diagram's

ADMIN DATA FLOW DIAGRAM



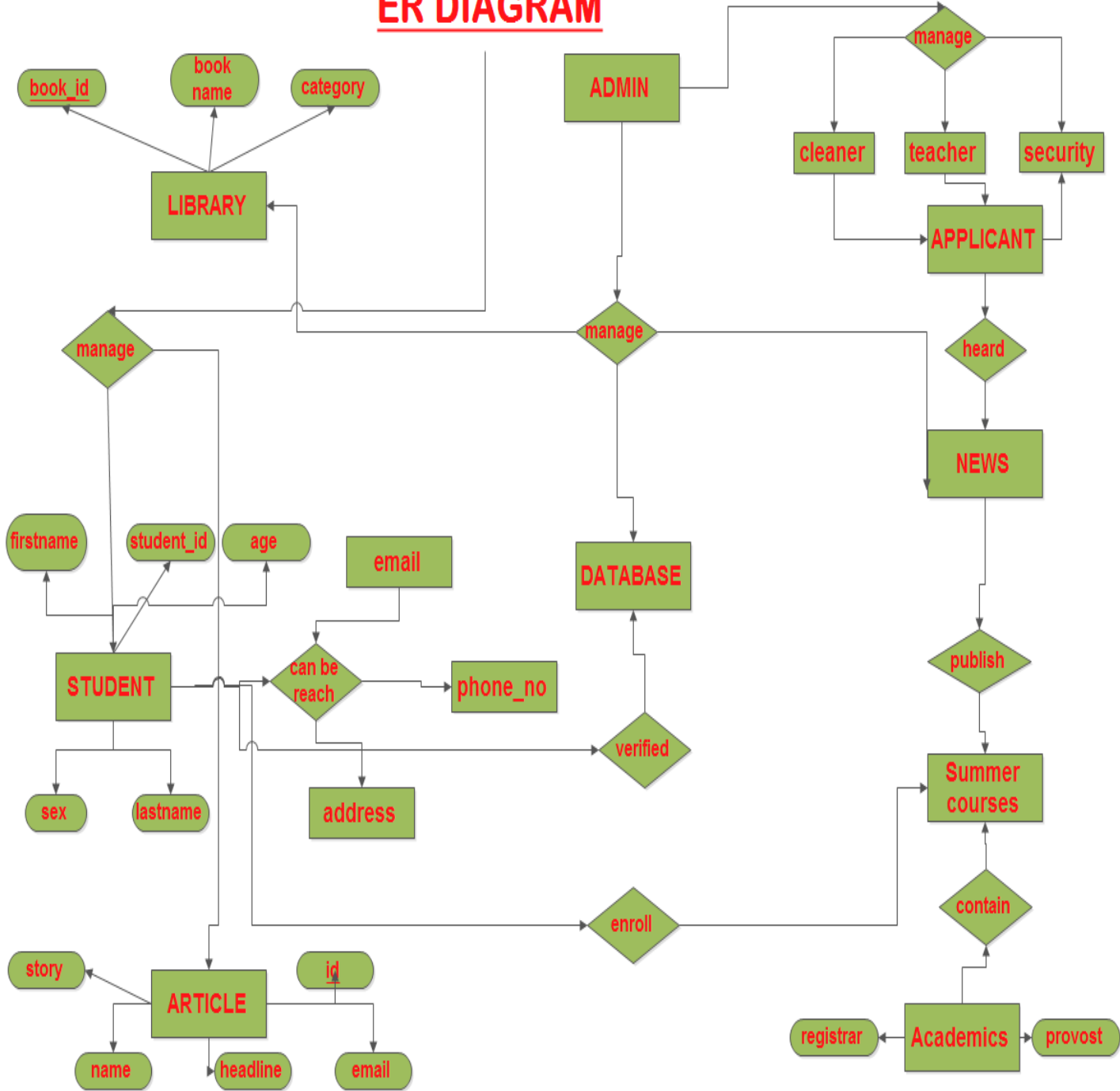
5.2 Student Data Flow Diagram's

STUDENT DATA FLOW DIAGRAM

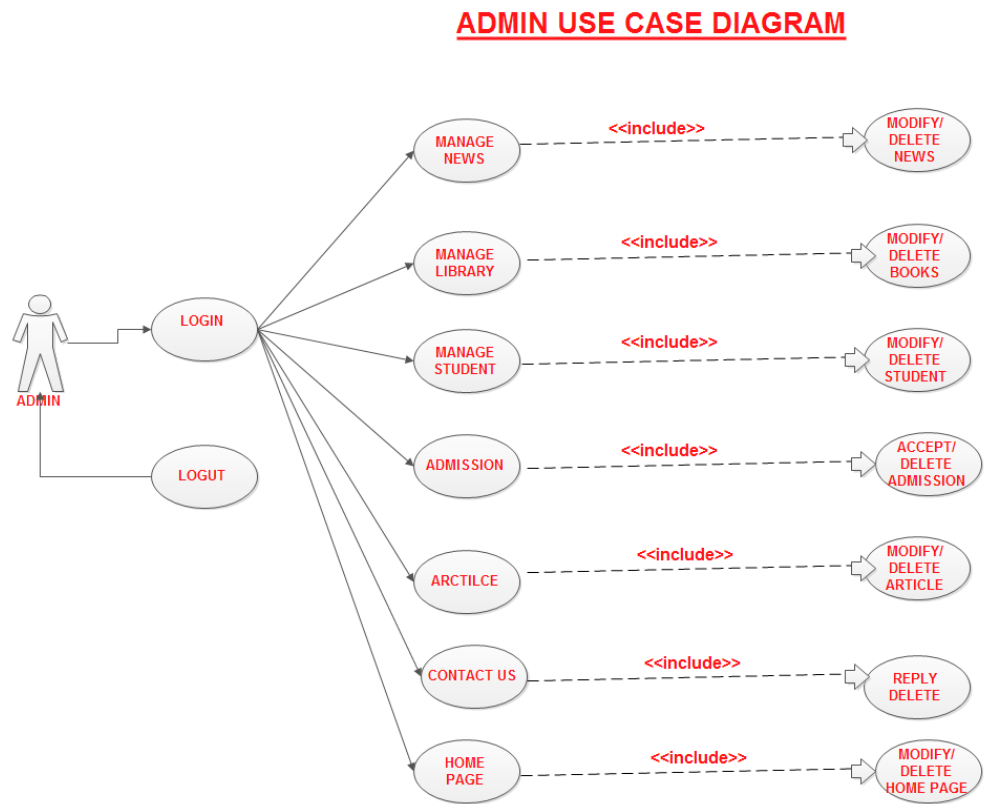


5.3 E-r Diagram's

ER DIAGRAM

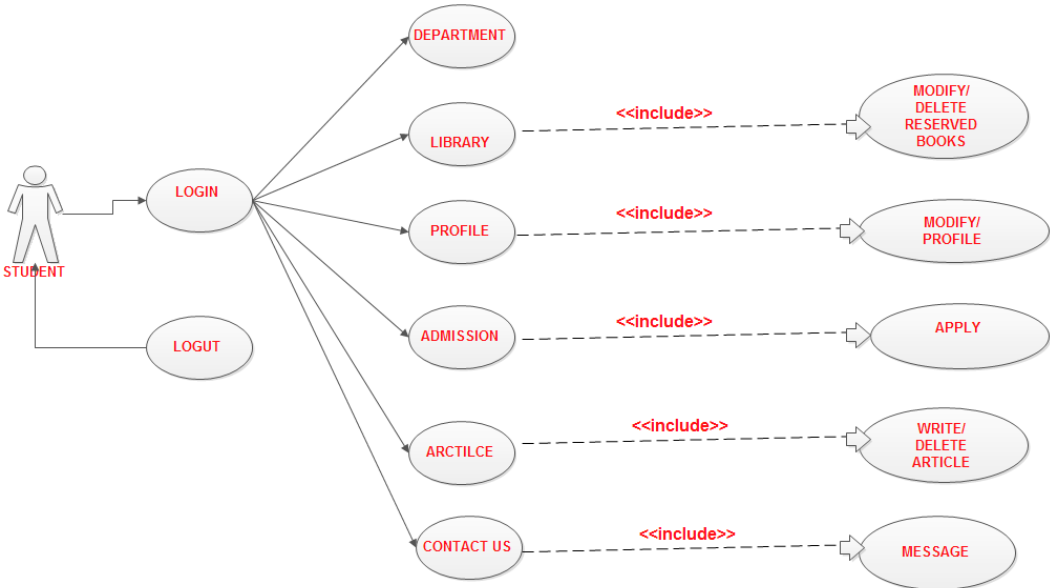


5.4 Admin Use Case



5.5 Student Use Case

STUDENT USE CASE DIAGRAM



Chapter 6

System Design and Implementation

6.1 Tools and Technology Used

The tools and technologies used during the development and implementation of our website include:

a) Programming Languages used:

- HTML
- JavaScript
- J-Query
- PHP
- CSS
- SQL

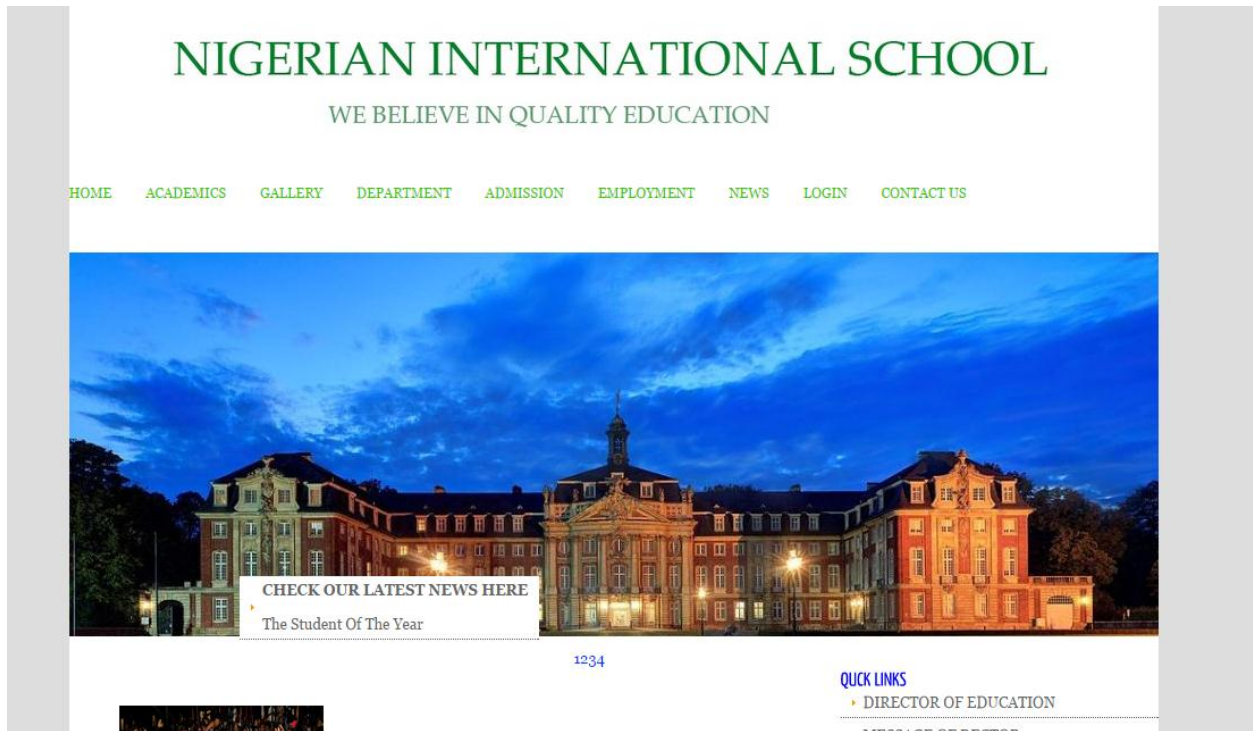
a) Software tools Used:

- Adobe Dreamweaver CS5
- Xampp
- PHP Processor
- MySQL Database
- Chrome Browser
- Photoshop

b) Platform Used:

- Windows 7

6.2 Home Page of Nigerian International School website



6.3 All Albums in the Gallery

NIGERIAN INTERNATIONAL SCHOOL
WE BELIEVE IN QUALITY EDUCATION

[HOME](#) [ACADEMICS](#) [GALLERY](#) [DEPARTMENT](#) [ADMISSION](#) [NEWS](#) [LOGIN](#) [CONTACT US](#)

Filter photos by [ALL CATEGORIES](#) [ENVIROMENT](#) [LIBRARY](#)

[LABS](#) [CAPTERIA](#) [SPORT](#) [GARDEN](#)



The gallery displays a grid of 20 small thumbnail images arranged in 4 rows and 5 columns. The images depict various school activities and environments: classrooms, students in a cafeteria, a sports field, a garden, a library, and various campus buildings and outdoor spaces.

6.4 photo in a Specific Gallery



6.5 Admin Login page

The screenshot shows the Admin Login page for Nigerian International School. The header features the school's name "NIGERIAN INTERNATIONAL SCHOOL" in a large green serif font, with the tagline "WE BELIEVE IN QUALITY EDUCATION" below it. A navigation menu at the top lists "HOME", "ACADEMICS", "GALLERY", "DEPARTMENT", "ADMISSION", "EMPLOYMENT", "NEWS", "LOGIN", and "CONTACT US". The main content area is titled "LOGIN FORM" and contains the following fields and elements:

- A "USERNAME" label above a text input field containing the placeholder text "USERNAME".
- A "PASSWORD" label above a text input field containing the placeholder text "PASSWORD".
- A "REMEMBER ME:" label above a checked checkbox.
- A "Reset" button located at the bottom left of the form.
- A "Submit" button located at the bottom right of the form.

@ak,abu&gonah copy right

6.6 Student Login Page

NIGERIAN INTERNATIONAL SCHOOL

WE BELIEVE IN QUALITY EDUCATION

[HOME](#) [ACADEMICS](#) [GALLERY](#) [DEPARTMENT](#) [ADMISSION](#) [EMPLOYMENT](#) [NEWS](#) [LOGIN](#) [CONTACT US](#)

LOGIN FORM

USERNAME

PASSWORD

REMEMBER ME:

6.7 News Home Page

NIGERIAN INTERNATIONAL SCHOOL

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EU officials seek to limit

BARBARA@yahoo.com



11 August 2014

Main aim in developing College Management System is to provide an easy way not only to automate all functionalities of a college, but also to provide full functional reports to top management of college with the finest of details about any aspect of college. College Management System is software has the perspective of attaining attraction of those colleges which don't have one good performing software for keeping their information secure

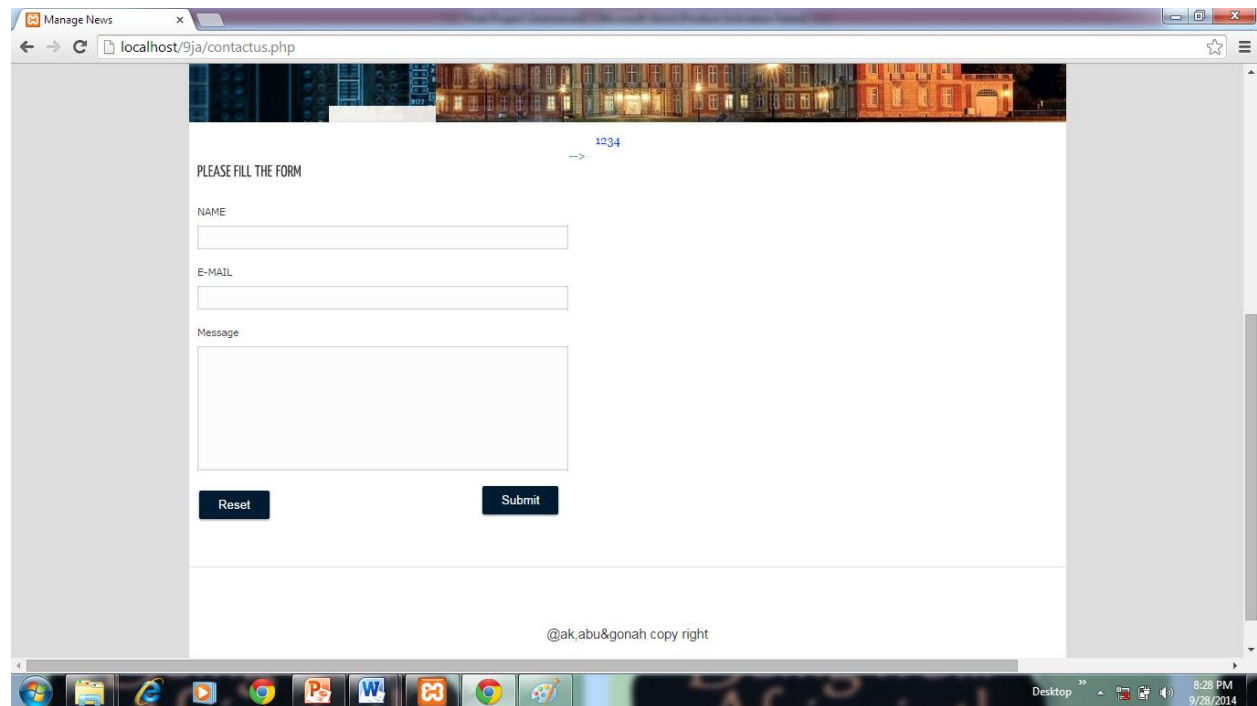
QUICK LINKS

- DIRECTOR OF EDUCATION
- MESSAGE OF RECTOR
- ADMINISTRATION
- ABOUT NIS
- ACADEMIC REGULATION
- FACILITIES
- RESEARCH
- PROJECT

STUDENT ARTICLES

- DIGITAL WORLD 2014
- Five Tips to Create a Master Plan for Professional Success
- Beating Fear
- Cost and Price
- Road to Freedom

6.8 Contact us Form



Manage News x

localhost/9ja/contactus.php

PLEASE FILL THE FORM

NAME

E-MAIL

Message

@ak.abu&gonah copy right

Desktop 8:28 PM 9/28/2014

6.9 Department Home page

NIGERIAN INTERNATIONAL SCHOOL

WE BELIEVE IN QUALITY EDUCATION

[HOME](#) [ANCIENT HISTORY](#) [LAW](#) [PHILOSOPHY](#) [SOCIOLOGY](#) [PSYCHOLOGY](#)



VISION & VALUES

A scientist begins an investigation by observing an object or an activity. Observation typically involves one or more of the human senses—hearing, sight, smell, taste, and touch. Scientists typically use tools to aid in their observations. For example, a microscope helps view objects too small to be seen with the unaided human eye, while a telescope views objects too far away to be seen by the unaided eye.

Scientists typically apply their observation skills to an experiment. An experiment is any kind of trial that enables scientists to control and change at will the conditions under which events occur. It can be something extremely simple, such as heating a solid to see when it melts, or something highly complex, such as bouncing a radio signal off the surface of a distant planet. Scientists typically repeat experiments, sometimes many times, in order to be sure that the results were not affected by unforeseen factors.

6.10 Library Category







The screenshot shows a web browser window with the address bar displaying `localhost/9ja/library/bookS.php`. The page title is "BOOKS LIST". The main content area features the school's name, "NIGERIAN INTERNATIONAL SCHOOL", and the tagline "WE BELIEVE IN QUALITY EDUCATION". A navigation menu includes links for HOME, ADMIN, LIBRARY, BOOKS, RETURN BOOK, ADD BOOKS, BOOKS LIST, LIST OF BORROWERS, and CONTACT US. Below the menu is a large image of a school building at night. A search bar is present with a dropdown menu showing "select category", "art", "engineering", "science", and "select category". The number "1234" is displayed next to the search bar. The Windows taskbar at the bottom shows various application icons and the system clock indicating 8:36 PM on 9/28/2014.

6.11 Library Book Shelf



1234

Category:

bookid	book title	category	no. copies	status	Borrow	Reserve
12	Gonah war	art	18	available		
24	What is it	art	21	available	 Borrow	
12346	HEREOS	art	34	available		

6.12 Library Borrow Form

NIGERIAN INTERNATIONAL SCHOOL

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[HOME](#) [ADMIN](#) [LIBRARY](#) [STUDENT](#) [CONTACT US](#)

BORROW FORM

ID NUMBER

NAME

COURSE :

YEAR :

SECTION :

BORROW DATE : :

28/9/2014

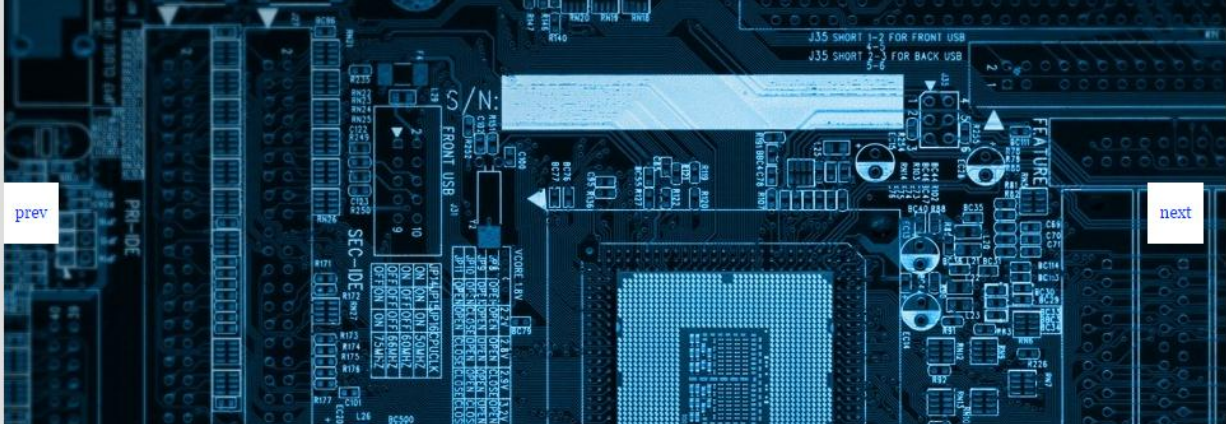
6.13 Library Book List

1234



bookid	book title	category	no. copies	status
12	Gonah war	art	18	available
14	Accept War	engineering	15	available
23	Holla	science	11	available
24	What is it	art	21	available
34	War of war	science	12	available
12345	Mash Mello	engineering	45	available
12346	HEREOS	art	34	available
12347	Physics	science	25	available
12348	C-Programming	engineering	1	available

@ak,abu&gonah copy right

6.14 Library List of Borrowers



1234

ID Number	Name	Course	Year	Section	Date Borrow	Date will Return	Book Title	No of Copies	Action
114301	Abubakar	CSE	I	A	2/9/2014	2/9/2014	Holla	1	 

6.15 Library Add Book Form

NIGERIAN INTERNATIONAL SCHOOL

WE BELIEVE IN QUALITY EDUCATION

[HOME](#) [LIBRARY](#) [BOOKS](#) [REUTRN BOOKS](#) [ADD BOOKS](#) [BOOKS LIST](#) [LIST OF BORROWERS](#) [CONTACT US](#)

ADD BOOK

BOOK CATEGORY:

BOOK STATUS:

6.16 Student Update profile

NIGERIAN INTERNATIONAL SCHOOL

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[HOME](#) [DEPARTMENT](#) [LIBRARY](#) [NEWS](#) [PROFILE](#) [ARTICLE](#) [LOGOUT](#) [CONTACT US](#)

WELCOME, 114306

UPDATE INFORMATION

NAME

LAST NAME

DATE OF BIRTH

ADDRESS:

6.17 Student Register New Id

REGISTRATION FORM

USERNAME

PASSWORD

RE_PASSWORD

6.18 Admin Add News Page

ADD NEWS

NAME

E-MAIL

Headline

News

Select Image:

 No file chosen

Caption

Reset

Submit

6.19 General view of Data Base

The screenshot displays the phpMyAdmin interface for a database named 'nis'. The main area shows a table list with the following columns: Table, Action, Rows, Type, Collation, Size, and Overhead. The tables listed include: admin, art_tutorial, best_doctor, best_student, books, borrowed, borrowers, business_tutorial, cleaner_application, contact_us, culturalday, existing_student, files, history_tutorial, images, law_tutorial, music_tutorial, newstb, philosophy_tutorial, psychology_tutorial, reserve_books, returned, security_application, and stfive. Each table entry has a set of icons for actions like Browse, Structure, Search, Insert, Empty, and Drop.

Table	Action	Rows	Type	Collation	Size	Overhead
admin	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	32 K18	-
art_tutorial	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
best_doctor	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 K18	-
best_student	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
books	Browse Structure Search Insert Empty Drop	9	InnoDB	latin1_swedish_ci	16 K18	-
borrowed	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16 K18	-
borrowers	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
business_tutorial	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16 K18	-
cleaner_application	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
contact_us	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 K18	-
culturalday	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
existing_student	Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 K18	-
files	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
history_tutorial	Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16 K18	-
images	Browse Structure Search Insert Empty Drop	9	InnoDB	latin1_swedish_ci	16 K18	-
law_tutorial	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
music_tutorial	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-
newstb	Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16 K18	-
philosophy_tutorial	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16 K18	-
psychology_tutorial	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16 K18	-
reserve_books	Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16 K18	-
returned	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16 K18	-
security_application	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	16 K18	-
stfive	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K18	-

Chapter 7

Evaluation and Conclusion

7.1 Evaluation of the project objectives

The Nigerian International school website is a new system which has to be run to see whether it works efficiently and perfectly. After running it for a few days we are now sure that the new system's purpose is maintained. Software evaluation and selection can become an innovative issue by some measures and considerations. We are therefore satisfied with the way that the The Nigerian International school website is working and addressing the needs of users (students and staffs) in many ways. We are satisfied with the following objectives that have been achieved:

- The system contains various types of user-defined checking methods like data duplicity, integrity, and inconsistency.
- The system checks each and every data being input by performing the above mentioned methods.
- The system is capable to show alert, confirmation, information messages to the user as per requirements.
- The site has an attractive, flexible and efficient interface.
- Now for the primary version we have designed the website efficiently, aesthetically appealing and given it all the flexibility it requires. We have emphasized on functions rather than just designing attractive interfaces.
- There are some messages sent to newly registered members in their respective e-mail accounts in the form of links to enable them confirm their membership status and register their details.
- As all the information is stored in the database, previous information can be generated by searching for key words in our website's search engine.
- Generating errors –the minimum error generated by a system is clearly defined by the system and our system also fulfills this criterion.

- Stimulation – the experience of working in a team made us to perform better and have more enthusiasm to work even harder.
- Learning – we all acquired new knowledge and insights from each other and this has helped us enormously in realizing our work on time and with no major hitches.

7.2 Evaluation by Real Users

During the last decade, the use of an assortment of usability inspection methods has become prevalent as project schedule become shorter and budgets become tighter. In general, the expense and effort involved in testing the real end users has been viewed by the development of Nigerian International School website as impedance to software development.

To find out how well the system works a questionnaire was created by us during the running and testing phases of the website development. The questionnaire has been designed in an easy way so that the participating users can answer them only by writing the points into the answer sheet. From the answers we would be able to judge if the proposed system has been up to the desired standard or there are still any functional lapses and lacunae in it.

Some of the questions we asked the real end users include among others:

- i. How do you assess the amenities provided by the website?
- ii. Do you find the modalities of accessing the website user-friendly enough?
- iii. Does the website satisfy all the needs and requirements you have initially specified?
- iv. What else do you think should be added to the website that other Technical High School websites omitted?

So far, the evaluation by the real end users has attained a very satisfactory level after so many rounds of adjustments, modifications and improvements in the initial user requirements and interface design. The website has been rendered more user-friendly and dynamic in all its functional aspects.

7.3 Problems Faced During System Implementation

The problems we faced while implementing the project started right from the design of the architecture of the website itself. These include among others:

- Complexities and difficulties related to prototyping, gathering of user requirements and adjusting the website according to their changing needs.
- Integrating the different modules of the website also turned out to be a very challenging task during our work.
- Issues related to the choice of the Technical High School logo, its design and creation, the background color and the frame to use were among some of the most difficult problems we faced.
- Then came the problem of coding where we faced numerous syntax errors related to the various programming languages we used.

7.4 SYSTEM SECURITY

Security is one of the most aspects that focused during the development of our website; there are several threads that can possibly be seriously damage our security system such threads we're able to exposed them and used concrete solution that our website is secured.

7.4.1 SQL Injection

SQL injection attacks are extremely simple to defend against, but many applications are still vulnerable. Consider the following SQL statement:

```
<?php
```

```
$sql = "INSERT
```

```
    INTO  users (reg_username,
```

```
           reg_password,
```

```
           reg_email)
```

```
VALUES ('{$_POST['reg_username']}',
```

```
        '$reg_password',
```

```
'{$_POST['reg_email']}')";
```

```
?>
```

This query is constructed with `$_POST`, which should immediately look suspicious.

Assume that this query is creating a new account. The user provides a desired username and an email address. The registration application generates a temporary password and emails it to the user to verify the email address. Imagine that the user enters the following as a username:

```
bad_guy', 'mypass', '), ('good_guy
```

This certainly doesn't look like a valid username, but with no data filtering in place, the application can't tell. If a valid email address is given (shiflett@php.net, for example), and 1234 is what the application generates for the password, the SQL statement becomes the following:

```
<?php
```

```
$username = mysql_real_escape_string($_POST[reg_username]);
```

```
$password = mysql_real_escape_string($_POST[' reg_password']);
```

```
$sql = "INSERT
```

```
    INTO  users (reg_username,
```

```
           reg_password,
```

```
           reg_email)
```

```
    VALUES ('bad_guy', 'mypass', '), ('good_guy',
```

```
           '1234',
```

```
           'shiflett@php.net')"; ?>
```

Rather than the intended action of creating a single account (good_guy) with a valid email address, the application has been tricked into creating two accounts, and the user supplied every detail of the bad_guy account. While this particular example might not seem so harmful, it should be clear that worse things could happen once an attacker can make modifications to your SQL statements.

For example, depending on the database you are using, it might be possible to send multiple queries to the database server in a single call. Thus, a user can potentially terminate the existing query with a semicolon and follow this with a query of the user's choosing.

MySQL, until recently, does not allow multiple queries, so this particular risk is mitigated. Newer versions of MySQL allow multiple queries, but the corresponding PHP extension (ext/mysqli) requires that you use a separate function if you want to send multiple queries (mysqli_multi_query() instead of mysqli_query()). Only allowing a single query is safer, because it limits what an attacker can potentially do.

Protecting against SQL injection is easy:

Data Filtering.

This cannot be overstressed. With good data filtering in place, most security concerns are mitigated, and some are practically eliminated.

Quote your data.

If your database allows it (MySQL does), put single quotes around all values in your SQL statements, regardless of the data type.

Escape your data.

Sometimes valid data can unintentionally interfere with the format of the SQL statement itself. Use mysql_escape_string() or an escaping function native to your particular database. If there isn't a specific one, addslashes() is a good last resort.

7.4.2 Session Hijacking

Arguably the most common session attack, session hijacking refers to all attacks that attempt to gain access to another user's session.

As with session fixation, if your session mechanism only consists of `session_start()`, you are vulnerable, although the exploit isn't as simple.

Rather than focusing on how to keep the session identifier from being captured, I am going to focus on how to make such a capture less problematic. The goal is to complicate impersonation, since every complication increases security. To do this, we will examine the steps necessary to successfully hijack a session. In each scenario, we will assume that the session identifier has been compromised.

With the most simplistic session mechanism, a valid session identifier is all that is needed to successfully hijack a session. In order to improve this, we need to see if there is anything extra in an HTTP request that we can use for extra identification.

Solution to this we give each an individual **session id** which is unique to every individual so any session hijack will not be possible and this also improve the level of our security in the website.

```
session_start();  
  
// Check, if username session is NOT set then this page will jump to login page  
if (!isset($_SESSION['username'])) {  
header('Location: ../admin_login.php');
```

7.4.3 Validation

One of the most important part of the security system is not allowing garbage data to be stored inside the database, to that we need to validate each data that user may provide during either registration or login we use two ways to do that by using server side and the client side.

7.4.3.1 Client Side Validation

When we start out adding validation, we want to make it as easy as possible for the user to fix the problem with the least additional load on our servers. This leans towards doing the client-side validation first, then server-side later if we have time. Client-side validation is faster, typically looks prettier, often has better association between messages and inputs, and just generally looks like the better choice from the product owner or customer perspective.

```
function validateForm()
{
var a=document.forms["reg"]["username"].value;
var b=document.forms["reg"]["password"].value;
if ((a==null || a=="") && (b==null || b=="")){
    alert("All Field must be filled out");
return false;
}
if (a==null || a=="")
{
alert("First username must be filled out");
return false;
}
if (b==null || b=="" || b.strln<=8)
{
alert("Last password must be filled out lenth");
return false;
```

```
}
```

```
}
```

7.4.3.2 Server Side Validation

Why we use the sever side validation because a user may try to turn off his JavaScript on the browser which will make our website vulnerable to some attackers in other to have a solid security system we need a backend where user has no authority in changing the security system. Server side validation is very important that's why we include it to add more in our security.

```
<?php
```

```
elseif($number == "") {
```

```
    $errorMsg= "error : Please enter number.";
```

```
    $code= "2";
```

```
}
```

```
//check if the number field is numeric
```

```
elseif(is_numeric(trim($number)) == false){
```

```
    $errorMsg= "error : Please enter numeric value.";
```

```
    $code= "2";
```

```
}
```

```
elseif(strlen($number)<10){
```

```
    $errorMsg= "error : Number should be ten digits.";
```

```
    $code= "2";
```

```
}
```

```
//check if email field is empty
```

```
elseif($email == ""){
```

```

$errorMsg= "error : You did not enter a email.";

$code= "3";

} //check for valid email

elseif(!preg_match("/^[_\.0-9a-zA-Z-]+@([0-9a-zA-Z][0-9a-zA-Z-]+\.)+[a-zA-Z]{2,6}$/i", $email)){

$errorMsg= 'error : You did not enter a valid email.';

$code= "3";

}

else{

echo "Success";

//final code will execute here.

}

?>

```

7.5 Future Work

Future work is what we intend to do in future to improve on our Technical High School website, make it more modern and integrate some of the most recent technologies that would have evolved by then. These future plans among others include:

- Use of Advanced security system: Security is a big issue in all online projects especially in social networking sites where privacy of individuals need to be kept confidential. We intend to use higher levels of security in future to keep private message secret and to protect the profile information of our members from theft.
- Greater user friendliness: It must be easily accessible, more flexible and very easy to use even by non-computer literates.
- More powerful database system like Oracle will be used in future.

