

**WEBSITE DESIGN AND DEVELOPMENT**

**FOR THE**

**FEDERAL UNIVERSITY OF TECHNOLOGY**

**MINNA**

**BY**

**OKUNROMADE ADEBODE**

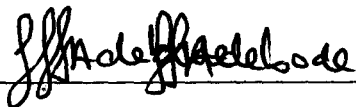
**MATRIC NO: 97/6117EE**

**DEPARTMENT OF ELECTRICAL/COMPUTER  
ENGINEERING, SCHOOL OF ENGINEERING  
AND ENGINEERING TECHNOLOGY, FEDERAL  
UNIVERSITY OF TECHNOLOGY, MINNA,  
NIGER STATE IN PARTIAL FULFILMENT OF  
THE AWARD OF A BACHELOR'S DEGREE  
(B.ENG)**

**SEPTEMBER 2003**

## DECLARATION

I hereby declare that this project work report was carried out by me and has never been presented in any form for the award of Bachelor's degree or Diploma Certificate. All information derived from published and unpublished work has been acknowledged.



**OKUNROMADE ADEBODE**  
**97/6117EE**



**DATE**

## CERTIFICATION

is to certify that this project was carried out by **OKUNROMADE DEBODE** OF THE Department of Electrical & Computer Engineering of The Federal University of Technology Minna under the supervision of Mr. Kolo.

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**MR. J.KOLO**  
Project Supervisor

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**DATE**

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**ENGR. M.N. NWOHU**  
Head of Department

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**DATE**

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**External Examiner**

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**DATE**

## DEDICATION

This project is dedicated to God Almighty for his Goodness, Mercies, Care, Protection, and Love, for the Grace granted to me for seeing me through in my Acaedemics and in whose hands lie my future.

## ACKNOWLEDGEMENT

will like to give thanks to the Almighty God, to him be all glory, honor and power forever and ever, Amen. I also appreciate him for he has been my guide throughout the period of my stay in the University.

I want to specially appreciate from the depth of my heart the efforts of my parents Rev. & Mrs. P.O Okunromade who have been my stronghold by the special grace of God. I love you and you shall eat the fruit of your labor in my life time in Jesus Name, Amen.

I will also like to appreciate the Head of my department Dr. Y.A Adediran , my supervisor Mr E. Kolo, and all lecturers in my department that contributed to the successful completion of my course and to all staff of the Federal University of Technology Minna.

I will also like to appreciate my Brothers and Sisters Mr.& Mrs. N.O. Okunromade, Tunde & Ladun, Lanre & Bimbo for their numerous support during my project, Mr. & Mrs. Olanrewaju, Mr.& Mrs. Elusoji,

Dr. & Mrs. G. Bamidele, and my Uncles and Aunties Arc. & Mrs. A. Ademo, Dr. & Mrs. Babade; and my thanks also goes to my friends, Sunnyk, Pastor Adejare, Debo, Kunle, Goke, Segun, Tunde, Kemi, and everyone for their love and support.

Special thanks go to my nephew, Joshua for his love, including Nuel, Enoch, John, Deborah and Shemi.

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# TABLE OF CONTENTS

DECLARATION .....	II
CERTIFICATION.....	III
DEDICATION .....	IV
ACKNOWLEDGEMNT.....	V
ABSTRACT .....	VI
TABLE OF CONTENTS .....	VII

## Chapter One

1.1. Introduction .....	2
1.2. The Internet Technology as Information Superhighway .....	2
1.3. Methodology.....	4
1.4. Limitation.....	4
1.5. Organization of The Project.....	4
1.6. Some Technical terms and their meaning .....	5
1.7. Some Dream weaver Tools Used In Designing The Website .....	5

## Chapter Two

2.1. What is the Internet.....	9
2.2. The World Wide Web.....	10
2.3. How website services work .....	11
2.4. Uniform Resource Locator.....	14
2.5 Advantages and Relevance To Modern Man.....	15
2.6.HTML (Hyper Text Markup Language).....	16

## **Chapter Three**

3.1. Planning Stages.....	22
3.2. Case Study on the Federal University of Technology Minna.....	26

## **Chapter four**

4.1. Web layout.....	39
4.2. Images.....	40
4.3. Database.....	41
4.4 Client Side Scripting.....	41
4.5 Uploading To Server.....	42
4.6 Site Updating And Maintenance.....	42
4.7 Features Of The Website For The Institution.....	43

## **Chapter five**

5.1. Summary.....	60
5.2. Challenges Encountered.....	60
5.3. Conclusion.....	60
5.4 Recommendation.....	61

References.....	62
Appendix.....	63



## ABSTRACT

“Internet”, “World Wide Web” and “Web page” are no longer the buzzwords now. They are now a reality. The internet is the world largest computer network of networks. One of the subsets is the World Wide Web. The World Wide Web contains a number of web servers scattered around the world. The web servers contain the information that a user anywhere in the world can access. The information is available in the form of web pages.

The aim of this project is to design a website for the institution using an editor which is called DREAMWEAVER.

Dream weaver is a professional visual editor for constructing and managing websites and pages. Simplicity and elegance is its hallmark. Dream weaver is a web page editor, designed to allow users to create web pages with a variety of features without apparently writing the HTML code. It is designed to be “WYSIWIG” (What you see is What you Get) design; the Dream weaver ‘Document window’ will be coded and placed in the document , so that the browser will display the page just as we see it in our Dream weaver window.

The project concerns the creation and implementation of a website for the Federal University of Technology Minna. It develops a website for the school which gives easy access to information pertaining to the school and gives room for improvement on the part of the school.

# CHAPTER ONE

## 1.1 Introduction

The website is currently the most informative publication in the world. This is due to the fact that it is cheaper, easy to use and rich information content hence organizations are exploring this opportunity to communicate with the world. The web is a very potent tool for information discovery and learning.

The web is basically a way of creating a geographically distributed pool of information so that people separated by short or long distances can make information available to others.

This project is presently in details, the challenges and strategies involved in the website development, deployment and maintenance. It equally reveals other major consideration like security, system optimization and interactive website concepts.

## 1.2 The Internet Technology as Information Superhighway

The Internet has revolutionized the computer and communication world like noting before. It has grown far beyond the imagination of the original developers and this growth is exceptionally owing to rapid advancement in Information technology tools. The invention of the telegraph, telephone, radio, and computer set the stage for this unprecedented integration of capabilities. The Internet is at once a world-wide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographical location. The Internet represents one of the most successful examples of the benefit of sustained

investment and commitment to research and development of information infrastructure. The success of internet is a reflection of power of information to the modern world. Internet technology breaks all forms of international, economic and political boundaries.

Thus, the Internet today is a widespread information infrastructure, the initial prototype of what is often called the national (or Global or Galactic) information infrastructure. Its history is complex and involve many aspects-technological, organizational and community.

And its influence reaches not only to the technical fields of computer communications but throughout society as we move towards increasing use of online tools to accomplish electronic commerce, Information acquisition, and community operation.

Organizations have implemented any imaginable information with the computer systems, which are now available on the Internet in various websites, and with powerful search engines, you can request and get saturated with valuable information from all over the world within a few seconds. It was easy therefore to coin the name Information Superhighway and noting can challenge that. It is well known that the future wars will be fought with ideas and this will come from how much information you have or have access to, hence the Internet is the first to think about. Currently the largest application is for business purposes, which is simply the economic application however the opportunities are beyond imagination.

### **1.3 Methodology**

In terms of the sets of the method used especially in data collection were gotten from the school herself, ideas of what the organization of the school will generally need and from the staff of the school.

### **1.4 Limitation**

There are no much limitations as long as the web server is ready to take all the required information. The information that will be on the site is: The Home, About us, Admission, Faculty, Library, Events and lots more.

### **1.5 Organization of The Project**

The project begins with an introductory part, which gives a general introduction on Internet Technology, the need, methodology and limitations of the web design. The second chapter contains a brief look on the Internet, the origin and what the World Wide Web is all about, how the web services work, what the URL means the advantages and relevance of a website, what HTML is. The third chapter has to do with the design of the website starting with the planning stage, and a case study of the school it is designed for. The fourth contains the implementation of the website showing some of the features. And finally chapter five consists of the conclusion and recommendation after which is the appendix.

### **1.6 Some Technical Terms And Their Meaning**

It is obvious that there are some terms in which some people mix up their meanings with the other.

Below is a list of few with their meaning.

**.WEB BROWSER:** This is where the HTML document is displayed. This is an application that you install on the client machine. The Browser reads the HTML source code and displays the page as instructed. A Browser is used to view WebPages and navigate through it. The Earliest known Browser was the Mosaic developed by the National Center for Supercomputing Applications (NCSA).

Today, there many Browsers available for Browsing the internet. Netscape's Navigator and Microsoft's Internet Explorer are the two major Browsers in use. A Browser makes life easier for the user because it provides a point-and-click graphical interface.

**.WEB CLIENT:** Is a web browser that enables a user to interact with the World Wide Web to send and receive files, electronic mail and other data.

**.IP:** Is called the Internet protocol. It is used as a prefix to the URL and gives the unique address of the host computer where the web pages are stored.

**.HYPERLINKS:** A hyperlink or link is a connection to another document or file (graphics, audio, video) or even to another section of the same document. When the user clicks to the hyperlink, he or she is taken to the URL you specify in the link.

You can provide links to:

1. A specific section of the same document
2. Another document

3. A specific section of another document
4. Other files- image, audio, video clippings
5. Another location or server

### Types of Links

The links created can be either internal or external links;

- Internal links are links to sections within the same document or within the same website.
- External links are links to pages on other websites or servers.

### Creating Hyperlinks

To create a hyperlink, you have to specify two components:

1. The full address or URL of the file to be linked.
2. The hotspot that will provide the link. The hotspot may be a line or text or even an image.

When the user clicks the hotspot, the Browser reads the address specified in the URL and “jumps” to the new location.

**.PROTOCOL:** Is a set of rules and standards that let computer exchange information. Some of the most commonly used protocols are:

1. http- hypertext transfer protocol
2. telnet- open a telnet session
3. gopher- search for a file
4. ftp- file transfer protocol
5. mailto- sending a mail

**.HTTP:** Is the acronym for Hypertext Transfer Protocol. Computers offering files that can be downloaded to your computer use this protocol.

**Editors-** To create the source document, an HTML editor is needed. This is a tool which can be used in designing the website. There are several editors in use today:

**Microsoft FrontPage-** is a comprehensive tool that can be used to create, design, and edit WebPages. You can also add text, images, tables and other HTML elements to the page. You can also create form through FrontPage.

## 1.7 Some Dreamweaver Tools Used In Designing The Website

**Named Anchor-** this is used to set markers in a document and is often placed at a specific top of a document. We can then create links to this Named Anchors, which quickly takes the visitor to the specified position. Creating the Named Anchor is a two-step process; it creates the Named Anchor and then links to the Named Anchor.

**Rollover-**This is an Image that changes when the pointer moves across it. A Rollover consists of two images: the primary image (the image displayed when the page first loads) AND THE Rollover image (the image that appears when the pointer moves over the primary image).

**Hotspot-** This is an image which serves as a (when clicked upon) link to another document, picture, or a text.

**Marquee-** This is an element found in the HTML document which enables the text to scroll to a specified direction.

**Corel Photo-paint-** This is a package (not Dreamweaver) used for creating the banner  
(Federal University Of Technology Minna)



# CHAPTER TWO

## 2.1 What is the Internet?

The Internet consists of millions of computer around the world that are connected one another through communication lines. It is referred to as a network of networks. Each computer on the internet offers a number of information, which can be accessed by anybody with the right equipment such as the modem, etc Computers that offer information on the Internet are called Hosts or Servers, used to store information. For example, Microsoft offers on several host computers. Computers that access information from the Internet are called Clients e.g. Your computer system used to visit the Internet. Therefore the Internet is a way of linking networks together so that all kinds of computer can work together and exchange data, even if they are different in manyways.

What the Internet offer are:

- .The opportunity to access information
- .Allows you to exchange information with others using E-mail, Newsgroups, and instant messaging
- . Play games
- .To buy stock

## Chatting on line

To see books on the net and lots more

Information when accessed is stored in different formats such as web page, FTP sites. But, the most popular format is the web page.

A web page consists of a variety of elements, such as texts, pictures, animations and hyperlinks. A group of related web pages is called a Website. The collection of all websites on the Internet is referred to as the World Wide Web (www).

## 2.2 The World Wide Web (WWW)

The World Wide Web (www) is the largest computer communication network and it is the fastest so far which allows people from different part of the world to communicate simultaneously without interfering with each other using phone lines through the computer. The web first originated in the European laboratory for high energy physics in Geneva, Switzerland, which has the acronym CERN from the center's earlier French name.

Tin Berners-Lee conceived the World Wide Web in 1989. By November 1994, over 150,000 web servers are known to exist, and over 35 million users exist. It was in 1993 that the web became popular.

The World Wide Web is linked to hypermedia. Hypermedia is a multimedia (i.e. graphics, sound, etc) version of hypertext, which allows you to read a document the way you want. The World Wide

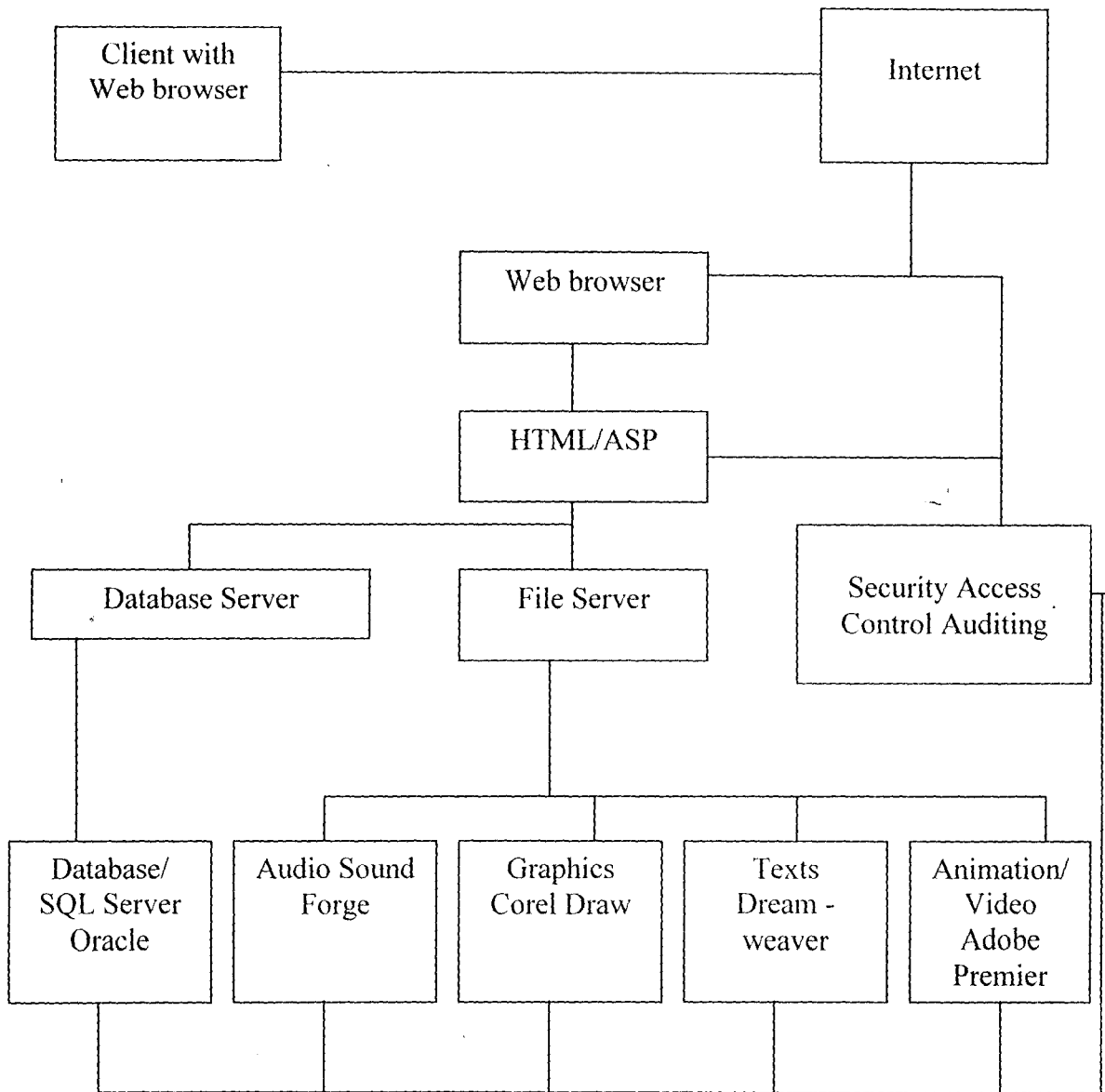
Web is not the Internet but it is a tool used in the Internet. The World Wide Web has a server in which all users are linked to. The web server hosts the websites.

A website is a single point on the internet containing information managed by an entity. Technically, it is a directory of logically linked elements accessible on the Internet; it is composed of static or dynamic documents generated on request. Other Internet services can be masked under web publications thus extending the functionality of such website. For example with integration of data base system, the website could be developed to receive information like any other physical counter but available to the whole world.

### **2.3 How Website Services Work?**

With reference to the diagram overleaf, an organization interested in having website must have certain facilities or hire an organization to provide them. This starts from the web server system, this system runs special software which publish documents when referenced over Internet connection with a name called Universal Resource Locator e.g. [www.microsoft.com](http://www.microsoft.com). The source of the document published can reside on the system or logically distributed to file server. The document published is standardized and composed of HTML codes. The technology of the codes referenced other elements like Database, Audio, Graphics, Texts and Animation files, which renders the final document on the browser. This elements as earlier described could reside on a single server or on specialized server if the challenges so demand. The process by which the files are organized is completely automated and there are a million strategies by which solutions can be implemented.

Security is provided usually from two points mainly and the head or bottom to control unauthorized intrusion into the system both internally and externally. This is another serious issue on the Internet but once more the solution is dependent on the strategies or the employed tool. One of the most reliable tools is the operating system and the masking of the computer parameters like protocols e.t.c.



Now the entire elements and the computer system serving them are organized with the HTML code, to reference them is placed on the web server, the web server is connected over a permanent

(needless to say) link over the Internet, the system must obtain specific parameter from the Internet authority which include the IP

Address and the URL which you specify. Anybody equipped with your URL e.g. [www.nigeria.com](http://www.nigeria.com) can now plug into the Internet as a client with browser on the diagram over links like telephone line. The Internet will plug into the system and submit the URL, a name resolution system will occur which is beyond the scope of this project but end up supplying the client system with the IP address of your web server and hence open a direct communication with your web server. The web server will respond by handling out the HTML codes and locating referenced files of other format and pushing them to the client. The client web browser will now render the information to you in text, pictorial and audio formats and that sequence continues until the client want no more information from your web server.

## **2.4 Uniform Resource Locator (URL)**

The Internet keeps track of the websites, FTP sites and newsgroups in a unique address called a Uniform Resources Locator (URL). A URL is a uniform way to refer to objects and services on the Internet. Internet users use URLs to invoke other Internet services, such as transferring files via FTP or sending email i.e. you can use the URL to access the information you want. HTML authors use URL's in the document to define hyperlinks to the other web documents. The URL syntax is

signed to provide a clear, simple notation that people can easily understand. The URL describes where something is and how it can be retrieved. The *how* is specified by the protocol for example, (HTTP). The *where* is specified by the machine name, the directory name, and the filename. Slashes and other characters are used to separate the parts of the machine-readable pieces. The basic structure of the URL is shown below:

protocol: // site address/directory/filename

The first part of the URL indicates the protocol used by the server offering the information. For example, web servers use http protocol while FTP servers use ftp protocol. An example of each is:

Web URL: <http://www.microsoft.com>

FTP URL: <ftp.usgs.gov>

Other protocols that URLs use are file, gopher, mailto, News, telnet, and NNTP (Network News Transport Protocol).

## **2.5 Advantages And Relevance To Modern Man**

From the earlier section, two main advantages have been mentioned briefly (i.e. security and economy) but to be very realistic, Science is yet to name the advantages but let us look at it from this

perspective, It has all the advantages information could offer, all the advantages computer system (most especially the speed, volume and accuracy of information), all advantages of escaping International rules and standards. The relevance of Internet is one major point of creating a Global Village where the only boundary between everybody is when you experience the sunlight. Like every other, technology, the Internet comes with problems, which are the direct opposite or simply the adverse application of the information. The information from the Internet is huge and it is enough to turn around the world of individuals without any other influence. It has changed the way we live because you can work directly from your home and any where in the world. The relevance to man is completely dependent on the perspective of the commentator; the only thing no one can deny is that this is the invention that impact the world most.

## **2.6 HTML (Hypertext Mark-up Language )**

HTML stands for Hyper Text Markup Language. It is the text markup language currently used on the World Wide Web and it is saved as editable text file with file extension .htm or .html. It is a subset of SGML (Standard Generalized Markup Language). It is an ordinary ASCII file (TEXT FILE) that contains text and codes.

An HTML document is simply a text file that contains the information you want to publish. It also contains embedded instructions, called elements, which indicate how a web browser should structure and present a document. AN element is made up of a start tag, such as <b> and also might include a close tag, which is indicated within the tag such as </b>. Tags are talking to the browser, or better still giving it instructions. The tag pair should fully enclose any content to be affected by the element



including text and the other HTML markup. However, some elements have optional closed tags because their closure can be inferred (for example, the close tag of <P> which is </P> is optional). Other HTML elements called empty elements, do not enclose any content, thus need no close tag at all. For example, to insert a line break we will use the <br> element, which is an empty element, as it doesn't enclose any content and no corresponding close tag. The start tag of an HTML element might contain attributes that modify the meaning of the tag.

Thus, the structure of HTML is of the form:

```
<HTML>
  <HEAD>
    < TITLE> Document Name! </TITLE>
  </HEAD>
  <BODY>
  </BODY>
</HTML>
```

## 2.61 The <html> Element

The <html> element delimits the beginning and the end of the HTML document. It contains only the <head> element, the <body> element, and potentially the <frameset> element instead of the <body> element when working with the frames. The <html> Element is a container for all other elements.

## **2.62 The <head> Element**

The information in the <head> element of an HTML document is very important because it is used to describe or augment the content of the document. The head of the HTML document is like the front matter or the cover page of a document. In many cases, the information contained within the <head> element is information about the page, which generally is referred to as meta-information. This is very important and often overlooked. Search engines use meta-information to index web pages. Apart from meta-information, the <head> elements include author contact information, scripts, style sheets, comments and most importantly, a page title.

### **2.621 The <title> Element**

The most important head element is the <title> element, which most browsers display in a title bar at the top of the browser window. The current title is required under current HTML specification and should occur as the first element within the head <head> element. The <title> element must be used in every HTML document. It gives an HTML document a title by which it is known to the browsers

and indexing robots. Browsers display the document title while the document is being viewed and might also use the title in bookmark lists.

## **2.63 The <body> Element**

After the head as seen above, is the body of the document which is delimited by <body> and </body>. Only one <body> can appear per document. Because the <body> element delimits the document itself, its attributes are primarily used to affect change across the entire document, such as setting background images, etc.

Attributes are another way of describing the elements' properties. They are not contained in the closed tags. The attributes have values, which are in most cases in quotes. For example, <FONT Face= "impact" Color "#ff00ff">, the attributes here are Face and Color, and their respective values as impact and #fff00ff.

Also, under HTML, there are tables, frames, and forms used for the design of the web pages. For more beautification, there is need for a dynamic effect of scripting such as java script.

## **2.64 The Rules For HTML**

HTML does have some rules even its standard form, though they are not really rules but more like suggestions.

- 1) HTML is not case sensitive
- 2) HTML supports a content model
- 3) HTML elements should close unless empty
- 4) HTML elements should not nest
- 5) HTML attributes should be quoted
- 6) HTML is sensitive to a single white character
- 7) Browsers ignore unknown attributes and elements

### **2.65 Avenues For Usage of HTML Codes:**

There is editable simple text editor notepad, and it defines every part of the page and element which when opened with the browser software like Internet Explorer it brings out the beautiful pages we see. There have been tremendous improvement both in the codes and the capabilities of the browsers but the principles remain unchanged.

There also applications like Microsoft FrontPage. The Microsoft FrontPage interface is equipped with three views that allow you to work with graphics or directly with codes and preview the works. However, there is more in the area of file management which monitors the arrangement and availability of necessary files in the website; Link management that monitors hyperlinks tot other pages within and outside the websites; Reports that give account of the status, size, when last changed and enable webmasters to know what exactly

has happened. It also include task feature for managing information for communication among web developer teams. Other applications are Cold fusion, Dream weaver, etc.

Thus HTML codes are easy to learn and forget. But, the more you practice, the more your knowledge, the more your creativity, and the more attractive your design or website.

# CHAPTER THREE

## 3.1 Planning Stage

Web development and web publishing are appropriate terms to describe the over all process of planning and putting together a website, particularly when some degrees of fought ought, skill, and artistry are employed. The knowledge of HTML alone does not provide all the facilities required to make appealing, usable website. There is need to understand the web process and how HTML works in that process.

The reason that site might exhibit problems varies. Some sites deteriorates simply because the site builders got bored or moved on, some because the site wasn't considered useful or funding was withdrawn, some because the complexity of the site is overwhelming, and so on.

To design a website, there is need to adopt a process model that describes the various phases involved in the website development. An ideal process model for the web would help in the addressing the complexity of the site, minimize the risk of project failure; deal with near certainty of change during the design, etc. The process would also be easy to learn and execute. The process takes a top-down approach. The model starts first with the planning stage, then a design phase, then implementation and testing, and ends with a maintenance phase. The task of deploying a website is as complex as the goal of the entity of the organization but all circumstances must answer the following as part of the planning stages.

### **3.11 Understanding the Need**

This simply explains the organization is trying to achieve with the internet. Organization predominantly wants people to access the information about them, it makes her to communicate or exchange information through the website. i.e. It explains the overall purpose of the site and its basic success measurements. It is from the understanding that the process begins.

### **3.12 Understanding what the client has (Facilities and Personnel)**

Most organization planning to establish a presence on the Internet will usually have some IT facilities existing as well as the personnel skills. This will play a major role to the strategy to be employed to integrate the existing infrastructures and skills into the new facilities. An example is the existing tools; it is always a wise idea to implement solutions using existing tools which the work-force is familiar with. This will save cost on training and most importantly the time the work-force will take to adapt to the culture shock of new tools.

### **3.13 Understanding the client Needs**

This step is two-in-one because here a prototype of the solution will be designed and this will expose the facilities that are not available or need upgrading to accommodate the new challenges. Similarly, personnel skills can be easily identified inline with the proposed solutions.

## **Available Technology And Tools**

stage and the previous stages are very much interrelated but this is where the suggestions that act new or latest technology may be introduced. This can answer or cater for some culture shock, it is very typical of Information Technology Project owing to better and cheaper tools of technology. Requirements such as content requirement (e.g. screen size, bandwidth), and delivery requirement (e.g. hosting consideration) are all determined at this stage.

## **5 Mapping Technology And Tools To Develop Strategy**

At this level, available technology and tools will be matched to develop the strategy. A major concern at this stage is the skill level of the personnel and the cost of maintaining a particular technology. This stage determines how to combine different sub-tools of a system to achieve the goal. This is so because most requirements can be met in more than one way even with the same tools; however the best route depends on how well you can manipulate the technologies and for other reasons (e.g. security, hardware compatibility, protocols e.t.c.); some strategies may be mapped out.

## **3.16 Implementation**

This marks the end of “talking” stages and the start of the “action” stages where the procurement (if necessary) and application of the tools are put in place. There will be a test lab for major stages to ensure the whole project is managed from distinct stages, though the implementation would seem to be the most time-consuming aspect of a project.



## **Verification**

Although a major portion of this would be done during implementation, all pages and services will be tested as providing the expected results and certified for deployment on the internet. Individual requests can also be requested for areas like color, combination, navigation structure, clarity of information. Legal departments will also contribute at this stage to ensure the information published is in line with the policy of the society. That is, there will be visual acceptance testing, functionality testing, content proofing, system and browser compatibility testing, delivery testing and user acceptance testing at this stage.

## **Documentation**

Details of the final work will be documented so that the project can be reproduced or for training new hands on the job and or the main source of future upgrading of such projects.

## 3.2 Case Study on the Federal University of Technology, Minna

### History

The Federal University of Technology, Minna is federally owned. It was established on 1<sup>st</sup> February, 1983. The objective for its establishment is to give effect to the Nation's drive for the much-needed self-reliance in Science, Engineering and especially Technology. It is a specialized University of Technology.

At inception, Professor J.O. Ndagi served as foundation Vice-Chancellor from 1983 to 1990, Professor S.O. Adeyemi as Vice Chancellor 1990 – 1994, Professor I.H. Umar as Sole Administrator 1994 – 1997, Professor S.A. Garba was appointed as Acting Vice-Chancellor on 26<sup>th</sup> June, 1997. The current Vice-Chancellor Professor M.A. Daniyan was appointed on 7<sup>th</sup> August, 1997. The foundation Registrar late Dr. B.P. Sawa served from 1983 – 1986, Mrs. L.S.J. Ahmed 1988 – 1993, while the current Registrar Alhaji U.A. Sadiq was appointed as substantive Registrar with effect from October, 1998 having acted in that position since 1993.

At take-off, the University acquired on a permanent basis, the facilities of the former Government Teacher's College Bosso which now serve as the Bosso Campus of the University. It has undergone a complete face-lift and wears a scenic outlook befitting a modern University setting. However, the University acquired 10,600 hectares of land along the Minna – Kataregi – Minna Road for the Main Campus of the University, because expansion was inevitable.

On Tuesday, June, 2<sup>nd</sup> 1992 the former President and Commander-in-Chief of the Armed Forces, Federal Republic of Nigeria, General Ibrahim Badamasi Babangida GCFR, fss, mni (Rtd), performed the sod Turning Ceremony to mark the commencement of projects on the main campus site. And since then work had started in earnest for the physical development of the Main Campus which in phase I consists of the School of Agriculture and Agriculture Technology, School of Environmental Technology, School of Engineering and Engineering Technology, University Library, Senate building, students village, the staff houses, the Computer Centre as well as the Industrial Development Centre. All things being equal, the Main Campus Phase I should be ready by the beginning of the 1999/2000 Session. The School of Science and Science Education and FUTMIN CONSULT are expected to remain at the Bosso Campus.

Since its inception, the University had graduated eight sets of students, whose market value was adjudged very satisfactory and are in high demand in both government and industry, servicing the technological needs of the nation. The figure showed a remarkable growth rate from 22 graduates in 1990, to 662 in 1998. Total students enrolment is now 5,138 with matching academic staff strength of about 250.

The University has recorded quite a number of academic achievements which include the design and fabrication of a number of highly valuable of socio-economic importance such as the Solar air heater, Motor-Car crankshaft, Gearing system for crane hoist drives, Rice destining machine, Maize sheller, Multiple purpose grinder, Irrigation models, Poultry feeder amongst a host of other creative innovations. It is equally gratifying to note that the

University had gained recognition nation-wide as a Centre for Excellence in Computer Science having been so designated by the National Universities Commission. In pursuit of this, the University obtained Internet connectivity towards the end of 1998.

Now the members of the University Community can easily access information the world over on the super highway. The University wishes to maintain this reputation and implores governments, organizations and well-meaning Nigerians to give the University financial and moral support towards the realization of this enviable objective. Furthermore, the Library has expanded its services in conformity with the general development of the University. Some of the Library services were automated in 1997/98 academic session, using library application software known as Tinlib (The Information Navigator Library). The official commissioning ceremony was performed by the Vice Chancellor, Prof. M.A. Daniyan, on 23<sup>rd</sup> March, 1999. In addition, there a number of Master's and Doctoral degree candidates currently being trained in the University in most of the disciplines offered in the four Schools.

In pursuance of excellence, Professor S.A. Garba led a team of researchers in the development and production of typhoid fever vaccines. This project is sponsored by the Unipetrol Nigeria Plc. The team has been able to develop and produce typhoid fever vaccines. And having completed the testing on mice, guinea pig, rabbits and monkeys, the vaccine is being tested on humans. So far so good and it is hoped that very soon the new vaccine will be in the market.

The Department of Architecture is working on a project tagged ARCHIFLOAT. It is aimed at addressing the 400-year old flood phenomenon in China. The solution is anchored on a simple but technical approach of constructing floating buildings on the Yang-Tse and Hwang-Ho riverbanks. The Department welcomes visitors to “The floating City of China”.

In the area of internal revenue generation, the University has floated the FUTMIN CONSULT, a consultancy outfit that has continued to achieve greater heights. It has undertaken the following consultancies among others: Gurara Inter Basin Water Transfer. NNDC/UNIDO Project. EEC/FGN Middle-Belt Project, Niger State Ecological Mapping for wheat growing, ADB/ONDO State Ecological Zone Mapping, Mando Fish Farm and NICON-Hilton Hotel Sewage Design, Environmental Impact Assessment at Kagara Dam for the Upper Niger River Basin and Rural Development Authority (UNBRDA), FUTMIN CONSULT is also a consultant to INEC on its Computerization and Telecommunication Programme, which is an on going project.

The University has established a linkage programme with the University of Namibia and is a member of the Association of Commonwealth Universities. It has also honoured four Distinguished Gentlemen and Achievers namely: Alhaji (Dr) Shehu Idris, CFR, the Emir of Zazzau and the Chancellor to the University; Alhaji (Dr) Ibrahim Dasuki CFR, the former Sultan of Sokoto, late Alhaji (Dr) Abdulrahman Mora and Dr. Sam Nujoma, the President of the Republic of Namibia, Retired General Badamasi Babangida, the former Head of State for the Republic of Nigeria and Retired Flight Lieutenant Jerry Rawlings, the former President of the Republic of Ghana. In recognition of excellence in areas of Science and

Technology, the University hopes to attract high caliber and eminent academicians to its fold and endeavour to fully equip all its academic facilities.

### **About Us**

Federal University of Technology, Minna is made up of four academic unites known as Schools namely, School of Environmental Technology, School of Science and Science Education, School of Engineering and Engineering Technology, School of Agric. and Agric. Technology and Graduate School. Each School is headed by the Dean and an Administrative head known as School Secretary who work hand-in-hand with the Dean and coordinates all matters of administration of the School. He also acts as the representative of the Registrar in the School.

By definition, technology is the synthesis of science and engineering disciplines for the solution of human problems and the improvement of the equality of the life and living. Therefore, the various academic programmes in the Federal University of Technology, Minna, were drawn up within the content of the above definition and in full appreciation of the broad national objective stated in the various, National Universities Commission Report on the establishment of New Universities of Technology and the degree establishing the Federal University of Technology, Minna.

The programmes are intended to raise the creative capacities and capabilities of the people so that they would be able to explore and effectively transform the natural resources of their environment into goods and services.

The programme have deliberately oriented with a basin for production technology which implies a pragmatic application of scientific, engineering and technological knowledge as well as raising the level of organization efficiently towards creating the physical hardware of production, exchange, distribution and consumption. But since the development of improved mean of production is very often itself a production of complex process of scientific and socio-economic interaction, it is also appreciate and understand the social setting and the dynamics of the existing modes of local production. To this end, the students would be exposed to the humanizing influence of the social through some subsidiary elective courses.

### **Faculties/Departments**

The **School of Environmental Technology** was established in 1986 with a Co-ordinator who initially handled the Unit. By now it has grown to full fledge School/Faculty consisting of six (6) departments which offer B-Tech programmes for a minimum of five (5) years. The departments are as follows:

- a) Architecture Department
- b) Building Department
- c) Estate Management Department
- d) Land Surveying Department
- e) Quantity Surveying Department
- f) Urban and Regional Planning Department

The School is expected to turn out competent Architectural Technologists, Builders, Surveyors, and Town Planners etc after the students have fulfilled all their specified academic requirements.

In addition to the academic programmes students are expected to participate in a minimum of three (3) months Students Working Experience Programme (SWEPE), which take place during the second semester break for all 200 level students in each department. Furthermore, a minimum of six (6) months Industrial Training Work Experience Scheme has been introduced as an integral part of the five-year degree programme in the School.

### **School of Science and Science Education**

The School of Science and Science Education is one of the four (4) specialized schools in the University offering courses leading to the award of B. Tech. Degrees and it has its own specific objectives, these objectives includes:

- a) The production of technologists in different areas of Applied Science who would be able to create opportunities for themselves and others.
- b) The initiation of applied research and offering of Consultancy Service to the public and private sectors through multi-faceted computer and other facilities.
- b) The production of science and technology teachers to teach the technology of production of science equipment at the sub-degree and post-degree diploma levels.



The School of Science and Science Education consists of nine (9) departments eight of which offer B. Tech. Degrees in the following subject areas and applied options (where available) for a minimum of three (3) years depending on the point or mode of entry.

The departments are listed below:

- a) Biological Science Department
- b) Chemistry Department
- c) Geography Department
- d) Geology Department
- e) Maths/Computer Science Department
- f) Physics Department
- g) Science Education Department
- h) Industrial and Technology Education Department

### **School of Agric and Agric Technology**

Seven (7) option areas available in the school are as follows:

- a) Agricultural Economics and Extension Technology
- b) Crop Production
- c) Horticulture
- d) Animal Production
- e) Soil Science
- f) Fisheries Technology
- g) Food Science and Nutrition

Students in the first five options are normally awarded a Bachelor of Agricultural Technology degree while those in the Fisheries and Food Science and Nutrition are awarded the Bachelor of Agricultural Technology (Fisheries) and Food (Science) degree respectively at the successful completion of their courses.

### **School of Engineering and Engineering Technology**

For entry into various departmental programmes in the School of Engineering and Engineering Technology, 100 level is the qualifying year. At this level Engineering Students take courses in Mathematics, Physics, Chemistry and General Studies run by the School of Science and Science Education. Other courses include Technical Drawing and Workshop Practice.

For students to proceed from 100 level to 200 level a Cumulative Grade Point Average (CGPA) of at least 1.0 is required. In addition, he/she must obtain 6 credits of Mathematics, 5 credits of Physics including at least two theory courses. Common courses are offered to all 200 level students of School of Engineering and Engineering Technology while 300 level students and above offers optional courses in different departments.

School of Engineering and Engineering Technology consists of five departments offering

B. Eng. (Hons) degree as follows:

- a) Department of Agricultural Engineering
- b) Department of Chemical Engineering

- c) Department of Civil Engineering
- d) Department of Electrical and Computer Engineering
- e) Department of Mechanical Engineering

### **Post-Graduate School**

The main objective of the post-graduate programme in the Federal University of Technology, Minna is to develop in graduate student, the spirit of enquiry through training in research in an atmosphere of intellectual interdependence and individual creativity combined with a strong sense of group cooperation.

It is also hoped that the programmes will focus attention on individual and group research in areas that will complement state and national efforts for total Socio-economic development. This objective will only be realizable through instruction of a deeper understanding of elementary concepts and an increasing ability to apply fundamental ideas to new problems. The Post-graduate programmes of the University are therefore set up to accomplish the stated objective including academic and practical orientation and provisions of facilities for training and research.

### **Services**

#### **University Health Services**

The department is headed by a Medical Officer In-Charge. Other members of the staff include: Dental Surgeon, a Chief Nursing Officer, three Assistant Chief Nursing Officers, two Nursing Officers and a Laboratory Technologist.

Health facilities are fully operational in the University Health Services which offers a wide range of services to staff and students alike.

### **University Library**

The University Library started operating in March, 1984. It was then housed in the old Dining Hall which has now been renovated and reconstructed into the library. Usual services have commenced in the new building which is fully air conditioned.

At present, the library's collection is about thirty-two thousand, nine hundred and forty-nine (32,949) volumes including reference materials and journals in the field of science and technology and other fields. Some of the library services are automated using library software known as Tinlib (The Information Navigator Library Software).

### **Computer Centre**

The Computer Centre was established in 1984

It started as a small Centre with about 5 micro-computers. Over the years the number has increased and at the moment there are about 30 functional microcomputer systems; 2 plotters; 5 printers and 2 optical map reader in the Laboratory.

Right from its inception, the Centre has been providing computing facilities for both academic and administrative needs. The Centre also provides consultancy services in the area of training, software development and computer procurement.

There is an extensive software library comprising compilers of all main languages: BASIC, FORTRAN, PASCAL, and C/C++ . Also available are scientific and educational software,

graphic design software and other application packages like Database, spreadsheets, word-processing and Accounting Packages.

### **The Security Division**

The division is headed by Chief Security Officer, other members of staff includes: Principal Security Officer, Security Supervisors, Assistant Security Supervisors, Senior Patrolmen and Patrolmen. At present the total approved establishment is 79, but the strength has never reached that projected number.

The Unit provides security services for twenty four (24) hours, in the Campus, and Vice-Chancellor's Lodge, University Guest Houses and other Principal Officers' residences. The Unit serves as policing within the University system instead of the Police Force. Then Unit also co-ordinates its activities with other security agents, like the Police Force, the S.S.S., the Military, Immigration Services, Customs, Nigeria Prisons Services etc.

The students are at liberty to report any incident promptly to security unit at any time. Where they have doubts on security issues generally, they can contact the Chief Security Officer or any of his officers for advice. The students are advised to carry along with them their I.D. Cards, either within or outside the campus to be produced to the security staff or any security agent outside the campus and any other person who may demand from them to identify themselves. If held by any of the security agent outside the campus they can send a message to Dean of Students Affairs or to the Chief Security Officer for assistance through the quickest means and they can phone the Dean of Students' Office on 066.224850 or the Security Unit on 220067.

## **Admission**

Three (3) modes of admission into B.Tech. degree programmes exist, namely: Remedial, UME and Direct Entry.

**Remedial Requirements:** This is a one-year terminal programme designed for candidates from the catchments states of the University, who are deficient in some science based disciplines, and to prepare them for full time degree programme. Subjects required are: English Language, Mathematics, Physics, Chemistry, Geography and Technical Drawing. The subjects requirements vary from department to department, however, English Language and Mathematics are common to all.

**UME Requirement:** Admission into School of Environmental Technology through JAMB to pursue a five (5) year degree programme requires that candidates must have five (5) credits passes in SSCE include Maths and English Language together with necessary JAMB score to qualify him/her for admission.

**Direct Entry Requirement:** The required qualification differs with departments. However, candidates with the following qualification are generally considered, and they spend minimum of three (3) years to obtain a B.Tech degree certificate.

These are:

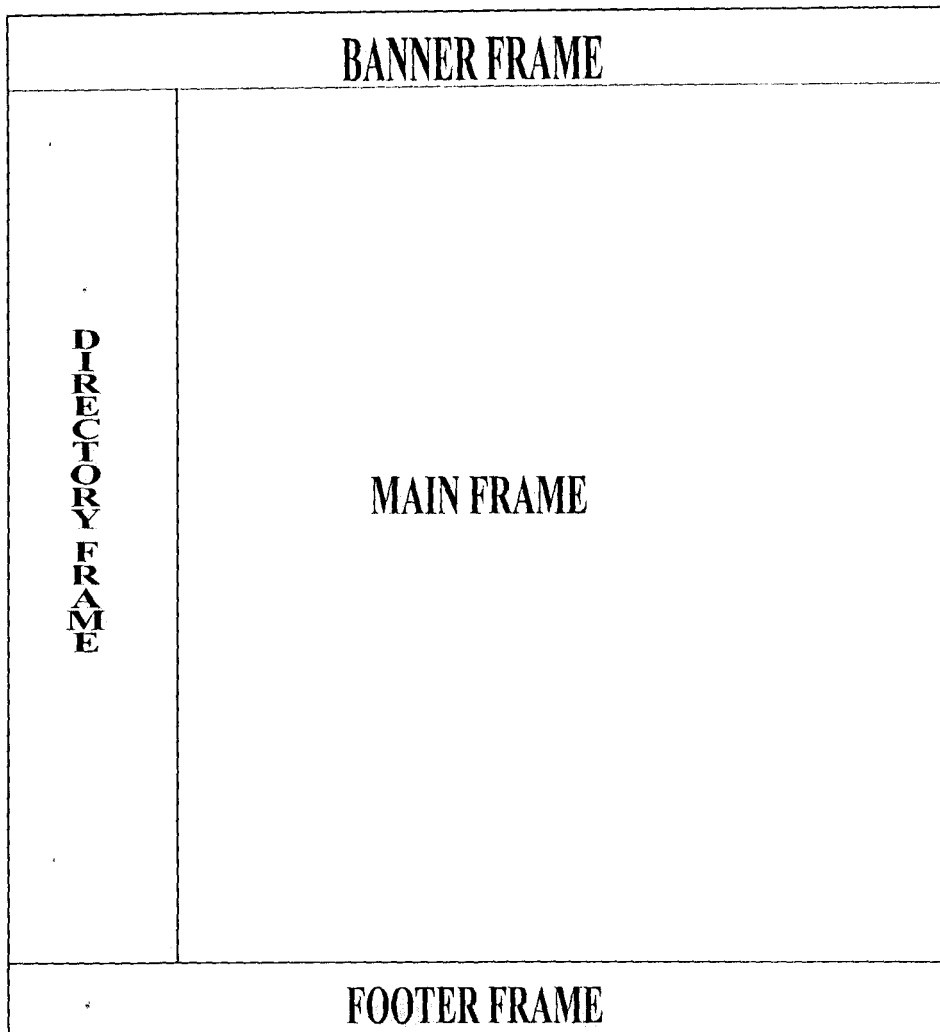
- a) HSC/GCE advanced level
- b) Ordinary National Diploma
- c) Higher National Diploma

# CHAPTER FOUR

## IMPLEMENTATION

### 4.1 Web layout

The layout of the website describes the WebPages that ensure clarity of information, easy navigation and easy updating. The adopted pages as shown in the diagram below and this is a sample of how the website will look like.



As labeled in the diagram above, four frames are combined. Each frame contains a complete webpage defined to fit into the assigned frame. The banner frame contains the major information about the website mostly the Name of the Institution, Logo and some main links to other pages. The Directory frame contains predominantly organized links processing, text, colors, image systems, etc. while HTML interfaces allow the merging of JavaScript when necessary. The preview window offers a quick interface to verifying the designs as doing what is required.

Dream weaver is a really matured web development tool and has lots of features for other administrative tasks in web management but since the aim of the project is not to demonstrate the capacity of individual tools, it is therefore beyond the scope of this project to describe the features any further. It is however very important to mention that other WYSIWYG tools exist which handles the same function as well e.g. Microsoft FrontPage, Cold fusion, etc. A major problem when dealing with WYSIWYG is that sometimes they make wrong assumptions for you and you have to be very careful not to accept it. If you have this situation, you may simply switch over to simple text editors like Notepad, they are more than enough if you understand your codes very well.

## **4.2 Images**

Corel photo-paint handled all the image processing. Other images are then scanned and then processed to required size and format. Also several other tools like Adobe Photoshop will perform a wonderful job. A major concern when dealing with image is having the highest quality at the minimum files size to ensure faster page display for your clients. The standardization of .gif and .jpg formats has largely solved this problem. Other technology exists but stay with the most popular.



### **3 Database**

Unlike the Text and Images, the Read-Write Database system is much more complex and most often require a dedicated computer system located else where in the system. The data base provides organized information, which can be easily queried for specific information. It forms an integral part of the website but it is not very common for it to be completely absent from the website. Text based equivalent can be constructed using JavaScript and will be Read-only, however intelligent combination of other services like e-mail can make up for write purposes.

#### **4.4 Client Side Scripting**

Owing to divers client of the Internet (both hardware and software), some specific coding requires the information to be generated from the client machine. For example in our website, the date and time is that of the client computer and not the server's.

This type of client information is constructed with client side scripting and this feature can be extended to any level depending on the requirement of the website.

## 1.5 Uploading to server

Most web development will not take place on the production server but elsewhere but with a means of connection to the production server. After the creation of the code, you usually require the service of the File Transfer Protocol tools like CuteFTP. This tool will copy the file as organized on your computer to the production server who will now serve the information out to the whole world.

Briefly about the production server, this system is expected to have permanent connection to the Internet and a specific IP address, which will be forwarded to an Internet Naming Authority. This authority ensures the uniqueness of your name on the Internet and also the Address of two Domain Name servers (DNS), which is responsible for locating the server across the Internet. When a client tries to reach your website, your Name (e.g. [www.futmx.com](http://www.futmx.com)) he/she would type this in the address space of the browser. The browser will now go straight to the authority and request the IP address, which will now be used in communicating with you independently. At this point the server will start handling out the information to the client browser and hence ends the sequence. This process is theoretically simple but technologically complex and very fast and yet very reliable to accommodate the information superhighway.

## 1.6 Site Updating And Maintenance

To ensure traffic to the website, the site must be dynamic with new things and changing existing ones, such as, remaining stale links. The process by which this is achieved is called Site Updating. There is really not much involved here other than that of changing the elements and publishing the site to the server. But periodic maintenance is essential, in that web server can be corrupted because

their exposure to the public and extended availability. At the developer's side the major maintenance has to do with the back-up of the website which is also a bundled tool in Dreamweaver. At the server side, the system Administrator will be responsible. This is because the nature of the server and other installed features enabled will determine the kind of maintenance that will take

### **Features of the website for the Institution**

The website for the Federal University of Technology Minna is of standard. The website consists of a homepage in which there are two categories of links: the main links and the sub-links.

The main links are of two kinds:

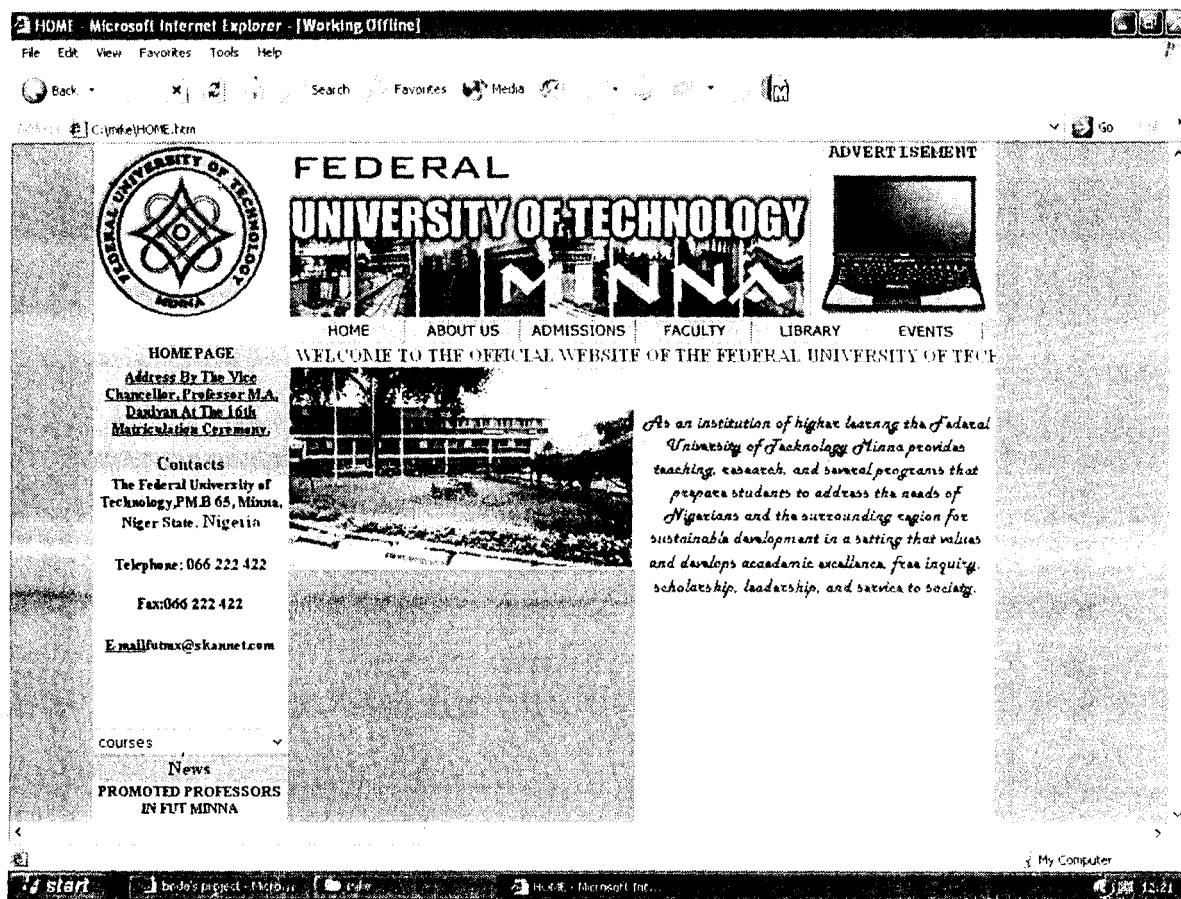
- The ones common to most Institutions, which are appearing at the Banner, Frame and the Footer Frame of the website, e.g. Home, About us, Admissions, Faculty, Library and Events.
- The specific ones to the Institution which is appearing at the Directory Frame e.g. News, Gallery, Contact us, E-mail etc.

Every website must adopt a standard pattern of navigation structure with various features. In my case, I chose that the banner frame contain the institution's name with the use of Corel photo-paint and links using Rollover image to make the site lively. By the left side of the Banner is Logo the

institution labeled Federal University of Technology Minna and at the right hand side is a section for advertisement.

#### 4.71 The Home Page

The home page can also be called the index page. It is the first page that appears on the website. It is here that you are being exposed fully to the working area of the website. You get to see links to animations; About us Faculties, Events etc. In this page, the vision of the school can be seen and also at the Footer frame, the name of the webmaster as well as his contact using e-mail can be viewed. Also at the section of the home page is a scrolling text (using marquee) which says welcome to the Federal University of Technology Minna.



## .72 About us Page

Tells you about the Institution, a section of this page tells you about the University Crest and color. Another section also tells you more about the university itself, while other pages open a page that contains the functions of the institution. Also the contact us can also be seen in a section of about us page.

The screenshot shows a web browser window titled "ABOUT US - Microsoft Internet Explorer - [Working Offline]". The address bar shows "C:\inetpub\wwwroot\ABOUT US.htm". The website content includes:

- Logo:** The Federal University of Technology, Minna logo, featuring a circular emblem with a star and the text "FEDERAL UNIVERSITY OF TECHNOLOGY MINNA".
- Header:** "FEDERAL UNIVERSITY OF TECHNOLOGY MINNA" in large, bold letters.
- Navigation:** A menu bar with links for HOME, ABOUT US, ADMISSIONS, FACULTY, LIBRARY, and EVENTS.
- Main Content:**
  - Left Column:**
    - Address By The Vice Chancellor, Professor M.A. Dakuyan At The 16th Matriculation Ceremony.**
    - Contacts:** The Federal University of Technology, P.M.B 65, Minna, Niger State, Nigeria. Telephone: 066 222 422, Fax: 066 222 422, Email: futmai@skanne.com
    - courses** (dropdown menu)
    - News:** PROMOTED PROFESSORS IN FUT MINNA
  - Center Column:** A paragraph defining technology: "By definition, technology is the synthesis of science and engineering discipline for the solution of human problems and the improvement of the quality of life and living. Therefore, the various academic programmes in the Federal University of Technology, Minna, were drawn up within the content of the above definition and in full appreciation of the broad national objective stated in the National Universities Commission Report on the establishment of New Universities of Technology and the decree establishing the Federal University of Technology, Minna. The programmes are intended to raise the creative capacities of the people so that they would be able to explore and effectively transform the natural resources of their environment into goods and services. The programme have been deliberately oriented with a bias for production technology which implies a pragmatic application of scientific, engineering and technological knowledge as well as raising the level of organization efficiently towards creating the physical hardware of production, exchange, distribution and consumption. But since the development of improved mean of production is very..."
  - Right Column:** An "ADVERTISEMENT" section with a small image of a laptop. Below it are links for "Students", "Gallery", "ASUU's Strike", and "SUG".

The browser's taskbar at the bottom shows the system clock as 11:11 AM on 11/11/11, and the taskbar includes icons for "My Computer" and "About Us - Microsoft...".

## 4.73 Admissions Page

This page contains the requirement for admission into the institution. It also contains pictures of students with sub-links to other pages. In this page, there is a section also for News and other important information.

The screenshot shows a web browser window titled "ADMISSIONS - Microsoft Internet Explorer - [Working Offline]". The address bar shows "C:\(nfe)ADMISSIONS.htm". The page content includes the university logo, a navigation menu with "HOME", "ABOUT US", "ADMISSIONS", "FACULTY", "LIBRARY", and "EVENTS", and a main section titled "ADMISSIONS".

**FEDERAL UNIVERSITY OF TECHNOLOGY MINNA**

ADVERTISEMENT

HOME ABOUT US ADMISSIONS FACULTY LIBRARY EVENTS

**ADMISSIONS**

Three modes of admission into B.Tech. degree programmes exist, namely: Remedial, UME and Direct Entry.

**STUDENTS**

**a. REMEDIAL REQUIREMENT:** This is a one-year terminal programme designed for candidates from the catchments states of the University, who are deficient in some science based disciplines, and to prepare them for full time degree programme. Subjects required are: English Language, Mathematics, Physics, Chemistry, Geography and Technical Drawing. The subjects requirements varies from department to department, however English Language and Mathematics are common to all.

**b. UME REQUIREMENT:** Admission into School of Environment Technology through JAMB to pursue a five (5) year degree programme requires that candidate must have five (5) credit passes in SSCE

Address By The Vice Chancellor, Professor M.A. Daudyan At The 16th Matriculation Ceremony.

**Contacts**  
The Federal University of Technology, P.M.B 65, Minna, Niger State, Nigeria  
Telephone: 066 222 422  
Fax: 066 222 422  
E-mail: futm@skannet.com

**PROMOTED PROFESSORS IN FUTE MINNA**

**MATRICULATING STUDENT**

Done My Computer

## 4.74 Faculty Page

This page displays the faculty/school of the Institution. The faculties are divided into five which are the School of Science and Science Education, School of Environmental Technology, School of Agric and Agric Technology, School of Engineering and Engineering Technology and the Post-Graduate School.

The screenshot shows a web browser window with the following content:

- Browser Title:** FACULTY - Microsoft Internet Explorer - [Working Offline]
- Address Bar:** C:\inet\of\FACULTY.htm
- Page Header:** FEDERAL UNIVERSITY OF TECHNOLOGY MINNA
- Navigation Menu:** HOME | ABOUT US | ADMISSIONS | FACULTY | LIBRARY | EVENTS
- Main Content:**
  - FACULTY**
  - THE FACULTY IS DIVIDED INTO FIVE NAMELY:**
    - [SCHOOL OF ENVIRONMENTAL TECHNOLOGY](#)
    - [SCHOOL OF SCIENCE AND SCIENCE EDUCATION](#)
    - [SCHOOL OF AGRIC AND AGRIC TECHNOLOGY](#)
    - [SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY](#)
    - [POST GRADUATE SCHOOL](#)
- Left Column:**
  - Address By The Vice Chancellor, Professor M.A. Danjimon At The 16th Matriculation Ceremony.**
  - Contacts**
    - The Federal University of Technology, P.M.B 65, Minna, Niger State, Nigeria
    - Telephone: 066 222 422
    - Fax: 066 222 422
    - E-mail: [futms@skannel.com](mailto:futms@skannel.com)
- Right Column:**
  - ADVERTISEMENT** (Image of a laptop)
  - News** (Image of a building)
  - PROMOTED PROFESSORS IN FUT MINNA**
    - AUTHORITIES of the Federal University of Technology (FUT) Minna, Niger State have announced the elevation of thirteen academics to professorial chairs.
    - [Click here for more details](#)

## 4.75 Library Page

This section gives information about the University library; it gives other information such as the services provided, opening hours and vacation period.

**LIBRARY - Microsoft Internet Explorer - [Working Offline]**

File Edit View Favorites Tools Help

Back Search Favorites Media

Address: C:\Inet\LIBRARY.htm

**FEDERAL UNIVERSITY OF TECHNOLOGY MINNA**

HOME ABOUT US ADMISSIONS FACULTY LIBRARY EVENTS

**LIBRARY**

**ADVERTISEMENT**

**Gallery**

- ASUU's Strike
- SUG

courses

**News**

**PROMOTED PROFESSORS IN FUT MINNA**

**AUTHORITIES of the Federal University of Technology (FUT) Minna, Niger State have announced the elevation of thirteen academics to professorial chairs.**

**LIBRARY SERVICES**

At the beginning of each session the orientation programme for new students is arranged which includes lectures on how to use the library.

2) Hand Book on readers services, library regulation is distributed to students on their enrollment.

**Contacts**

The Federal University of Technology, P.M.B 65, Minna, Niger State, Nigeria

Telephone: 066 222 422

Fax: 066 222 422

Email: futunv@skannet.com

My Computer

start hoda's project - Mead... LIBRARY - Microsoft I... 14:53



## 4.76 Events Page

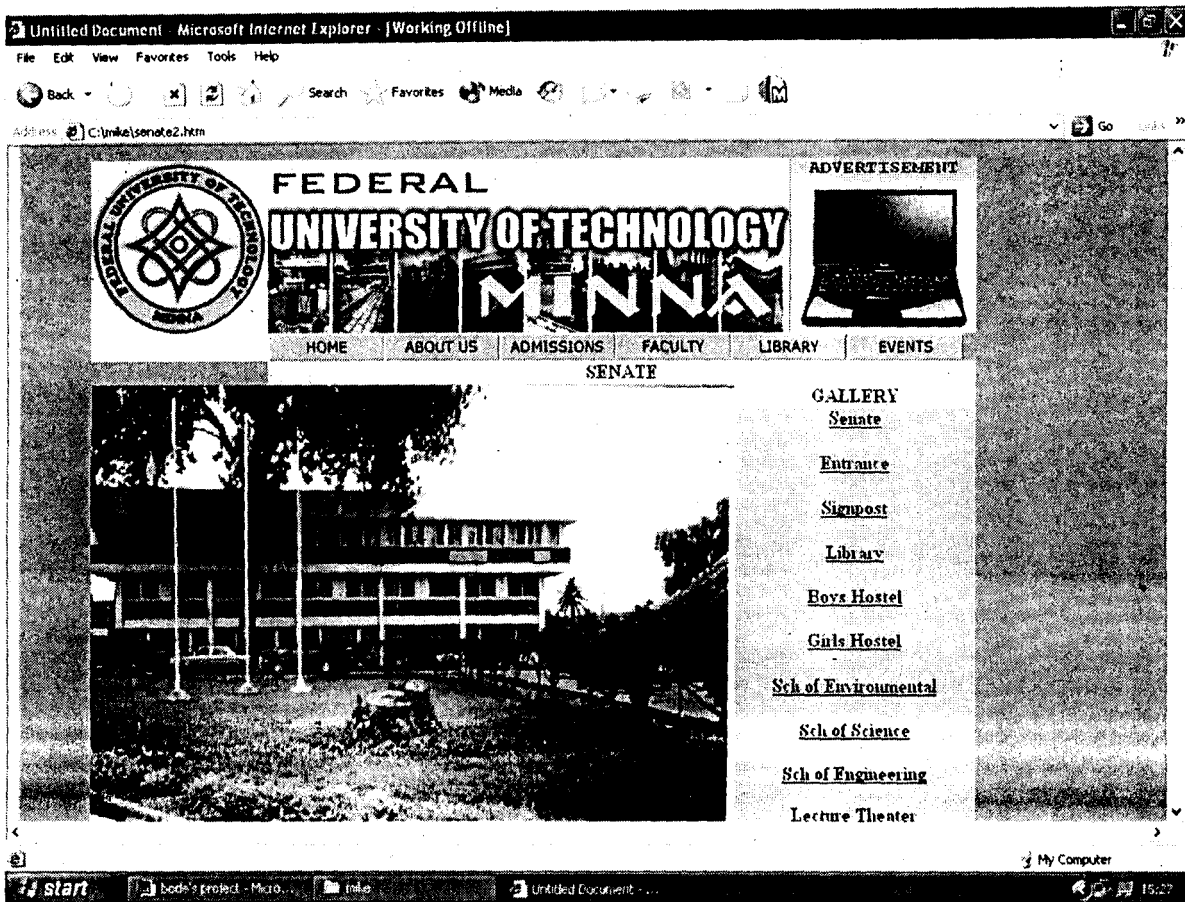
This page contains events that took place in the University. Such events that can be seen are those of the Matriculation and Convocation Ceremonies.

The screenshot shows a Microsoft Internet Explorer browser window displaying the website for the Federal University of Technology (FUT) in Minna. The browser's address bar shows the URL `C:\inetpub\wwwroot\FUT\Events.htm`. The website header features the university's logo on the left, the name "FEDERAL UNIVERSITY OF TECHNOLOGY MINNA" in large, bold letters in the center, and an "ADVERTISEMENT" section on the right. Below the header is a navigation menu with links for "HOME", "ABOUT US", "ADMISSIONS", "FACULTY", "LIBRARY", and "EVENTS". The "EVENTS" section is active, displaying several news items with accompanying images. The first item is titled "AT the Convocation Ground" and shows a group of people. The second item is titled "Vice chancellor's visit to Etsu Nuge" and shows a group of people in traditional attire. To the right of these items is a news item titled "Address By The Vice Chancellor, Professor M.A. Daniyan At The 16th Matriculation Ceremony." Below this is another news item titled "PROMOTED PROFESSORS IN FUT MINNA" with the sub-heading "AUTHORITIES of the Federal University of Technology(FUT)". The browser's taskbar at the bottom shows the "start" button, several open applications, and the system clock displaying "15:12".

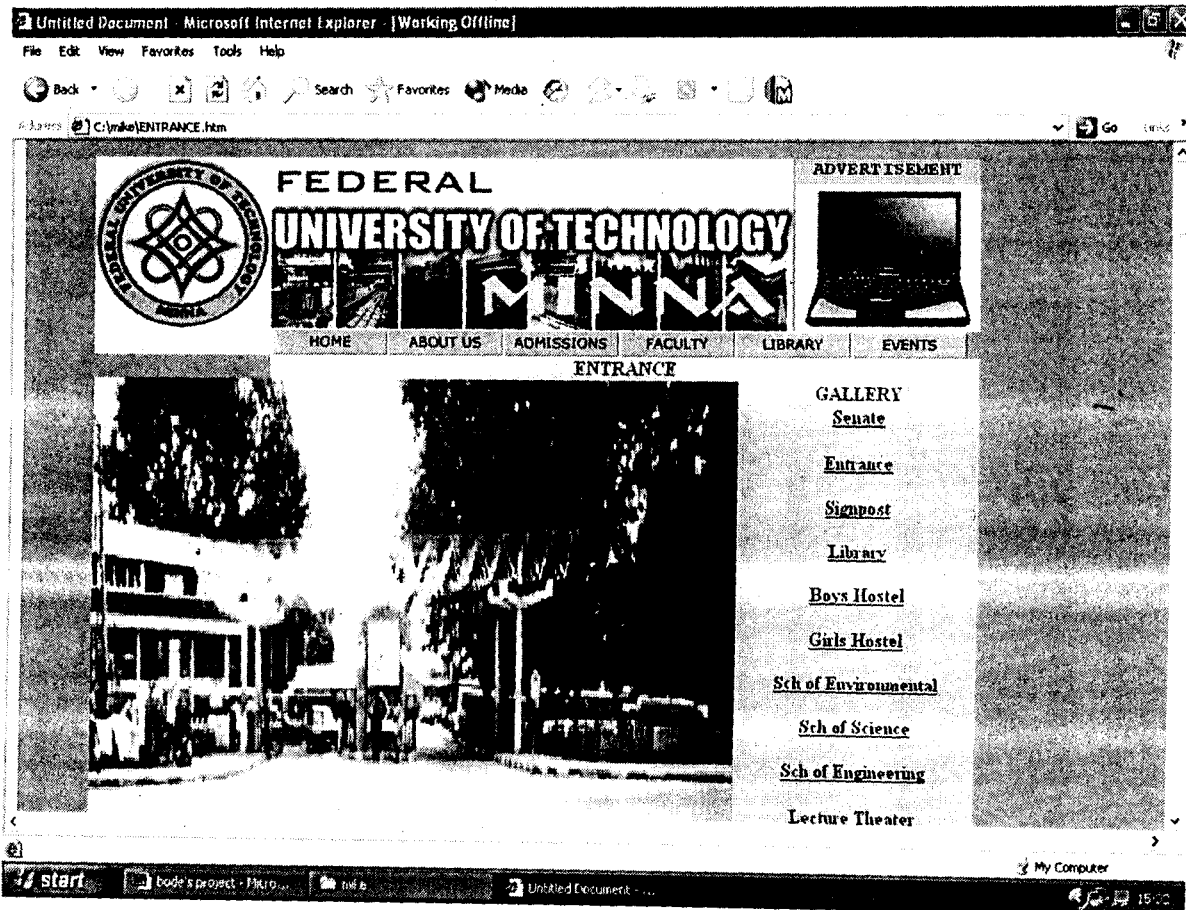
## 4.77 Gallery Page

This is a sub-section of the pages which displays the pictures of the structures of the school. The structures displayed in the site are; Senate, Signpost, Library, Boys and Girl's hostel, Engineering block Environmental block, School of Science block and the Cafeteria. In this gallery page, the structures will be displayed sequentially.

### Gallery showing the Senate Building



## 4.78 Gallery showing the School Entrance



## 4.79 Gallery showing the Signpost

Unlited Document - Microsoft Internet Explorer - [Working Offline]

File Edit View Favorites Tools Help

Back Search Favorites Media

address C:\m\w\1\SIGNPOST2.htm

**FEDERAL UNIVERSITY OF TECHNOLOGY MINNA**

HOME ABOUT US ADMISSIONS FACULTY LIBRARY EVENTS

**SIGNPOST**

**FEDERAL UNIVERSITY OF TECHNOLOGY MINNA**  
DASSO CAMPUS

**ADVERTISEMENT**

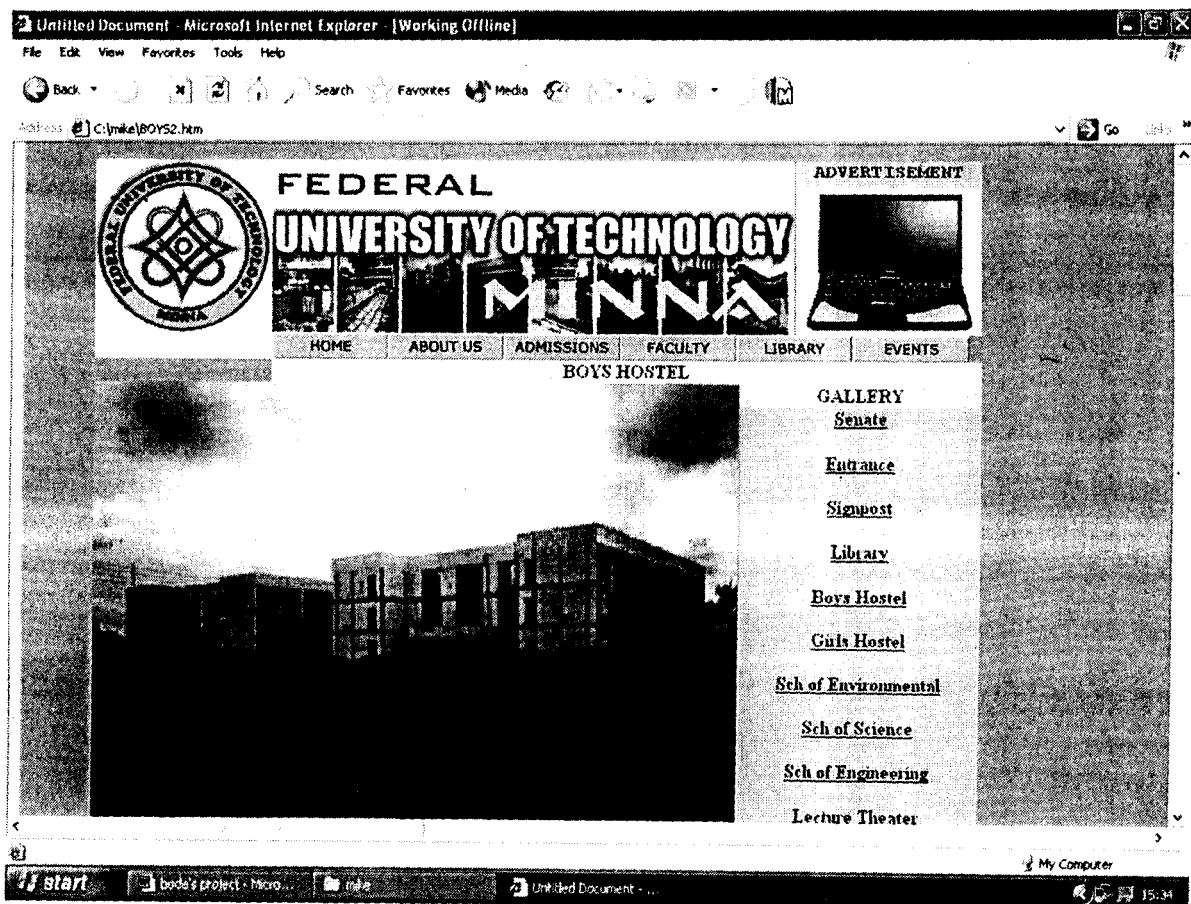
**GALLERY**

- [Senate](#)
- [Entrance](#)
- [Signpost](#)
- [Library](#)
- [Boys Hostel](#)
- [Girls Hostel](#)
- [Sch of Environmental](#)
- [Sch of Science](#)
- [Sch of Engineering](#)
- [Lecture Theater](#)

file:///C:/m/w/1/ABOUT US.htm

start Code's project - Micro... n.d.a Unlited Document - ... My Computer 15:32

## 4.80 Gallery showing the Boys Hostel



## 4.81 Gallery showing the Girl's Hostel

Microsoft Internet Explorer - [Working Offline]

File Edit View Favorites Tools Help

Back Stop Search Favorites Media

Address C:\mke\GIRLS2.htm

**FEDERAL UNIVERSITY OF TECHNOLOGY**  
**MINNA**

HOME ABOUT US ADMISSIONS FACULTY LIBRARY EVENTS

**GIRLS HOSTEL**

**GALLERY**

- [Senate](#)
- [Entrance](#)
- [Signpost](#)
- [Library](#)
- [Boys Hostel](#)
- [Girls Hostel](#)
- [Sch of Environmental](#)
- [Sch of Science](#)
- [Sch of Engineering](#)
- [Lecture Theater](#)

file:///C:/mke/ENG2.htm

start | bode's project - Micro... | mke | Untitled Document - ... | My Computer | 15:43


## 4.82 Gallery Showing School of Environmental

Untitled Document - Microsoft Internet Explorer - [Working Offline]

File Edit View Favorites Tools Help

Back Search Favorites Media

Address C:\mk\ENVIRO2.htm




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### SCHOOL OF ENVIRONMENTAL



#### ADVERTISEMENT



#### GALLERY

- [Senate](#)
- [Entrance](#)
- [Signpost](#)
- [Library](#)
- [Boys Hostel](#)
- [Girls Hostel](#)
- [Sch of Environmental](#)
- [Sch of Science](#)
- [Sch of Engineering](#)
- [Lecture Theater](#)

C:\mk\FACULTY.htm

start bode's Project - Mac... info

My Computer

15:44

## 4.83 Gallery showing the school of Science

Unfilled Document - Microsoft Internet Explorer - [Working Offline]

File Edit View Favorites Tools Help

Back Search Favorites Media

Address: C:\yakra\SCIENCE2.htm

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**MINNA**

HOME ABOUT US ADMISSIONS FACULTY LIBRARY EVENTS

**SCHOOL OF SCIENCE**

**ADVERTISEMENT**

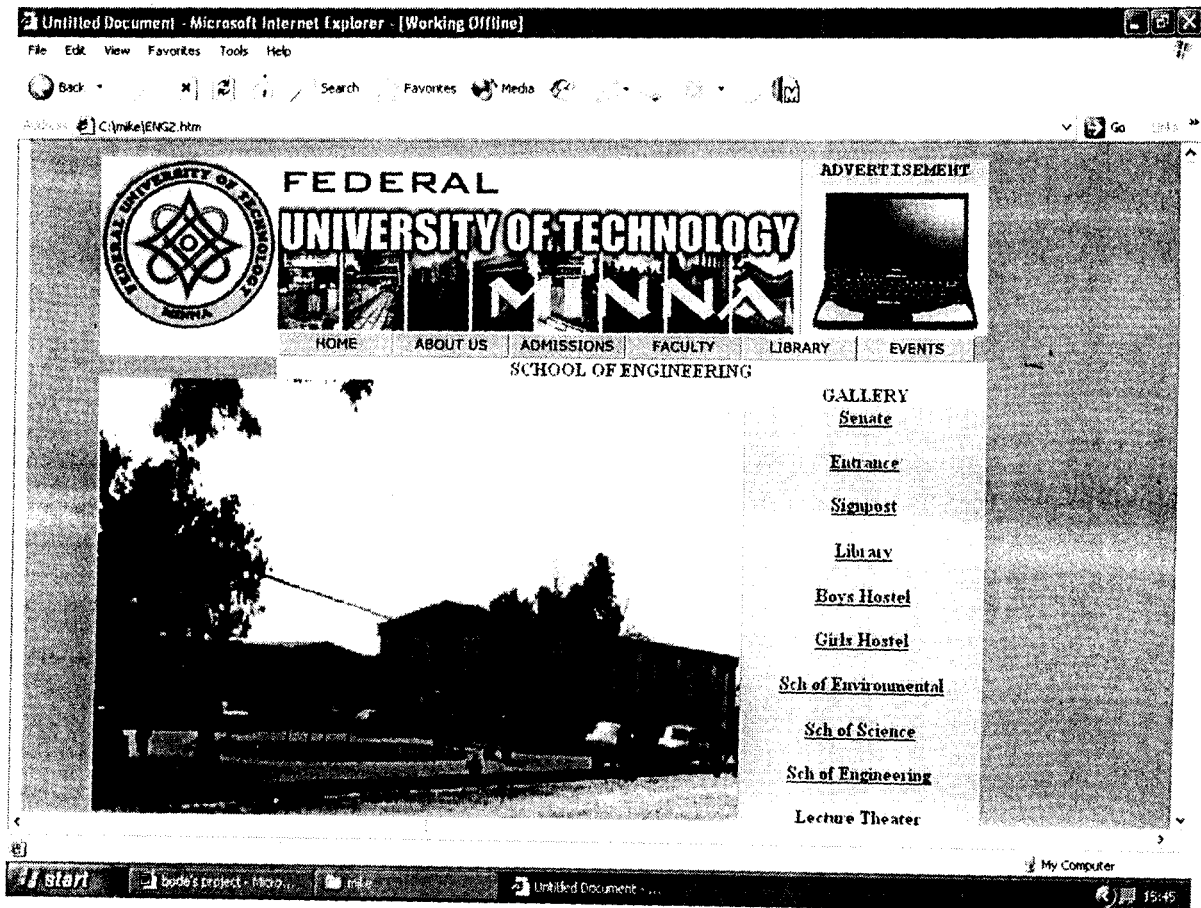
**GALLERY**

- [Senate](#)
- [Entrance](#)
- [Signpost](#)
- [Library](#)
- [Boys Hostel](#)
- [Girls Hostel](#)
- [Sch of Environmental](#)
- [Sch of Science](#)
- [Sch of Engineering](#)
- [Lecture Theater](#)

My Computer 15:19



## 4.84 Gallery showing the School of Engineering



## 4.85 Gallery showing the Lecture Theater

The screenshot shows a Microsoft Internet Explorer browser window with the following elements:

- Browser Title Bar:** Unfiled Document - Microsoft Internet Explorer - [Working Offline]
- Menu Bar:** File Edit View Favorites Tools Help
- Address Bar:** C:\inetpub\LECTURE2.htm
- Page Header:**
  - Logo:** Federal University of Technology, Minna
  - Text:** FEDERAL UNIVERSITY OF TECHNOLOGY MINNA
  - Navigation:** HOME ABOUT US ADMISSIONS FACULTY LIBRARY EVENTS
  - Advertisement:** ADVERTISEMENT (with a small image of a laptop)
- Main Content:**
  - Section:** LECTURE THEATER
  - Image:** A large photograph of a modern building, likely the Lecture Theater.
  - Gallery:** A vertical list of links:
    - [GALLERY](#)
    - [Senate](#)
    - [Entrance](#)
    - [Signpost](#)
    - [Library](#)
    - [Boys Hostel](#)
    - [Girls Hostel](#)
    - [Sch of Environmental](#)
    - [Sch of Science](#)
    - [Sch of Engineering](#)
    - [Lecture Theater](#)
- Taskbar:** Start button, taskbar with "bode's project" and "inet" icons, and a system tray showing "My Computer" and the time "15:47".

## 4.86 Gallery showing the Cafeteria

The screenshot shows a Microsoft Internet Explorer browser window displaying a website. The browser's title bar reads "Untitled Document - Microsoft Internet Explorer - [Working Offline]". The address bar shows "C:\Inet\CAFETARIA2.htm". The website header includes the logo of the Federal University of Technology, Minna, and a navigation menu with links for HOME, ABOUT US, ADMISSIONS, FACULTY, LIBRARY, and EVENTS. Below the navigation menu, the word "CAFETARIA" is displayed above a large photograph of a modern building. To the right of the photograph is a vertical list of links: GALLERY, Senate, Entrance, Signpost, Library, Boys Hostel, Girls Hostel, Sch of Environmental, Sch of Science, Sch of Engineering, and Lecture Theater. An "ADVERTISEMENT" section with a laptop image is visible in the top right corner. The Windows taskbar at the bottom shows the Start button, open applications like "Bode's Project - Micro...", and the system clock displaying "15:55".

# CHAPTER FIVE

## 5.1 Summary

The website for the Federal University of Technology Minna, contains a very brief history for the Institution, its mandate and function as an Institution, also it gives the various Information such as About us, Admission, Faculty, Events and lots more. It also links the Institution to the outside world and gives room for easy communication.

## 5.2 Challenges Encountered

There were a lot of challenges that were faced such as information gathering and how to make the website attractive.

There was need to apply some other applications such as Corel Photo-Paint for animations, etc, and thus requires one to have some knowledge about applications to make the aim of the development achieved.

## 5.3 Conclusion

Internet has already changed our world and there is nothing we can do about it other than to make the best of our world out of it. Website development is an outgoing process and will continue as long as the Internet lasts. The new comers are always welcome and new site will always be published everyday. It is very important to note that there are diverse tool and strategy of implementing web development and everybody is welcomed.

## 5.4 Recommendation

It should be encouraged that all governmental organizations be computerized, this will help the government in its work and allows growth in the nation. Also, they should make use of people with information skills, and as well train and make it mandatory for every government worker especially the top officials to be computer literates. For this is very important.

Finally, everyone should visit the Internet, and you will understand there is no other recommendation other than that you should get all the information you need just for the time. The Internet contains a lot of information that whatever the question or information you need either in the circular world or religion or studies or whatever, you will find on the net because the next moment, someone somewhere in the world is working on a better technology.

## REFERENCES

1. Osborn(1999); Complete HTML Reference book
2. APTECH WORLDWIDE; HTML,DHTML and JAVASCRIPT
3. APTECH WORLDWIDE; Dream weaver
4. Joe Barter (1999); Professional web page Tutorial
5. Federal University of Technology Minna; Students handbook(2000).

# APPENDIX

## HOME PAGE

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<title>HOME</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<script language="JavaScript" type="text/JavaScript">
<!--
function MM_preloadImages() { //v3.0
var d=document; if(d.images){ if(!d.MM_p) d.MM_p=new Array();
var i,j=d.MM_p.length,a=MM_preloadImages.arguments; for(i=0; i<a.length; i++)
if (a[i].indexOf("#")!=0){ d.MM_p[j]=new Image; d.MM_p[j++].src=a[i];}
}

function MM_jumpMenu(targ,selObj,restore){ //v3.0
eval(targ+".location='"+selObj.options[selObj.selectedIndex].value+"'");
if (restore) selObj.selectedIndex=0;
}

function MM_swapImgRestore() { //v3.0
var i,x,a=document.MM_sr; for(i=0;a&&i<a.length&&(x=a[i])&&x.oSrc;i++) x.src=x.oSrc;
}

function MM_findObj(n, d) { //v4.01
var p,i,x; if(!d) d=document; if((p=n.indexOf("?"))>0&&parent.frames.length) {
d=parent.frames[n.substring(p+1)].document; n=n.substring(0,p);}
if(!(x=d[n])&&d.all) x=d.all[n]; for (i=0;!x&&i<d.forms.length;i++) x=d.forms[i][n];
for(i=0;!x&&d.layers&&i<d.layers.length;i++) x=MM_findObj(n,d.layers[i].document);
if(!x && d.getElementById) x=d.getElementById(n); return x;
}

function MM_swapImage() { //v3.0
var i,j=0,x,a=MM_swapImage.arguments; document.MM_sr=new Array; for(i=0;i<(a.length-2);i+=3)
if ((x=MM_findObj(a[i]))!=null){document.MM_sr[j++]=x; if(!x.oSrc) x.oSrc=x.src; x.src=a[i+2].;}
}
//-->
</script>
</head>

<body bgcolor="#6699FF" text="#000000" link="#333399" vlink="#000066" alink="#660000"
onLoad="MM_preloadImages('signpost.gif')">
<div align="center">
<table width="2803" border="0" cellpadding="0" cellspacing="0" bgcolor="#6699FF">
<!--DWLayoutTable-->
```

```

<tr>
  <td width="62" height="71">&nbsp;</td>
  <td width="153">&nbsp;</td>
  <td width="100">&nbsp;</td>
  <td width="100">&nbsp;</td>
  <td width="26">&nbsp;</td>
  <td width="74">&nbsp;</td>
  <td width="73">&nbsp;</td>
  <td width="27">&nbsp;</td>
  <td width="51">&nbsp;</td>
  <td width="49">&nbsp;</td>
  <td width="100">&nbsp;</td>
  <td width="11">&nbsp;</td>
  <td width="1977">&nbsp;</td>
</tr>
<tr>
  <td height="22">&nbsp;</td>
  <td rowspan="3"
    valign="top"
    bgcolor="#FFFFFF"><strong></strong></td>
  <td colspan="7" rowspan="2"
    valign="top"><a href="SIGNPOST2.htm"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image4','signpost.gif',1)"></a></td>
  <td colspan="3"
    valign="top" bgcolor="#CCCC33"><div align="center"><font color="#330000" face="Courier New, Courier,
mono"><strong>ADVERTISEMENT</strong></font></div></td>
  <td>&nbsp;</td>
</tr>
<tr>
  <td height="127">&nbsp;</td>
  <td colspan="3"
    rowspan="2"
    valign="top"></td>
  <td>&nbsp;</td>
</tr>
<tr>
  <td height="23"></td>
  <td
    valign="top"><object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5.0.0.0" width="100" height="23">
  <param name="BASE:" value=".">
  <param name="BGCOLOR" value="">
  <param name="movie" value="button2.swf">
  <param name="quality" value="high">
  <embed
src="button2.swf" width="100" height="23" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash"
shockwave-flash" base="." ></embed>
  </object></td>
  <td
    valign="top"><object
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5.0.0.0" width="100" height="23">

```



```

<param name="BASE" value="">
<param name="BGCOLOR" value="">
<param name="movie" value="button4.swf">
<param name="quality" value="high">
<embed
src="button4.swf" width="100" height="23" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash" type="application/x-
shockwave-flash" base="" ></embed>
</object></td>
<td colspan="2" valign="top"><object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5.0.0.0" width="100" height="23">
<param name="BGCOLOR" value="">
<param name="movie" value="button5.swf">
<param name="quality" value="high">
<embed
src="button5.swf" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash" type="application/x-
shockwave-flash" width="100" height="23" ></embed>
</object></td>
<td colspan="2" valign="top"><object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5.0.0.0" width="100" height="23">
<param name="BGCOLOR" value="">
<param name="movie" value="button7.swf">
<param name="quality" value="high">
<embed
src="button7.swf" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash" type="application/x-
shockwave-flash" width="100" height="23" ></embed>
</object></td>
<td colspan="2" valign="top"><object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5.0.0.0" width="100" height="23">
<param name="BGCOLOR" value="">
<param name="movie" value="button8.swf">
<param name="quality" value="high">
<embed
src="button8.swf" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash" type="application/x-
shockwave-flash" width="100" height="23" ></embed>
</object></td>
<td colspan="2" valign="top"><object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=5.0.0.0" width="100" height="23">
<param name="BGCOLOR" value="">
<param name="movie" value="button10.swf">
<param name="quality" value="high">
<embed
src="button10.swf" quality="high"
pluginspage="http://www.macromedia.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash" type="application/x-
shockwave-flash" width="100" height="23" ></embed>
</object></td>
<td>&nbsp;</td>
<td>&nbsp;</td>
</tr>
</tr>

```

```

<td height="20"></td>
<td valign="top" bgcolor="#9999FF"><div align="center"><font size="2"><strong>HOME PAGE:</strong></font></div></td>
<td colspan="10" valign="top" bgcolor="#FFFFFF"><div align="center">
  <MARQUEE>
  <font color="#990000"><strong>WELCOME TO THE OFFICIAL WEBSITE OF THE
  FEDERAL UNIVERSITY OF TECHNOLOGY MINNA</strong></font>
  </MARQUEE>
</div></td>
<td></td>
</tr>
<tr>
<td height="73"></td>
<td valign="top" bgcolor="#CCCC33"><div align="center"><font size="2"><a href="address%20by%20vc.htm"><strong>Address
  By The Vice Chancellor, Professor M.A. Daniyan At The 16th Matriculation
  Ceremony.</strong></a></font></div></td>
<td colspan="4" rowspan="3" valign="top"></td>
<td colspan="6" rowspan="3" valign="top" bgcolor="#CCCC99"><p>&nbsp;</p>
<p align="center"><font color="#993300" size="3" face="Harlow Solid Italic">As
an institution of higher learning the Federal University of Technology
Minna provides teaching, research, and several programs that prepare
students to address the needs of Nigerians and the surrounding region
for sustainable development in a setting that values and develops academic
excellence, free inquiry, scholarship, leadership, and service to society.</font></p></td>
</tr>
<tr>
<td height="20"></td>
<td valign="top" bgcolor="#9999FF"><div align="center"><font color="#000000"><strong>Contacts</strong></font></div></td>
<td></td>
</tr>
<tr>
<td height="80"></td>
<td rowspan="2" valign="top" bgcolor="#FFFF00"><p align="center"><font size="2"><strong>The
  Federal University of Technology, PM.B 65, Minna, Niger State.</strong></font><strong>
  Nigeria</strong> </p>
<p align="center"><font size="2"><strong>Telephone: 066 222 422</strong></font></p>
<p align="center"><strong><font size="2">Fax:066 222 422</font></strong></p>
<p align="center"><strong><font size="2"><a href="mailto:futmx@skannet.com">I;-
mail</a>futmx@skannet.com</font></strong></p>
<p>&nbsp;</p></td>
<td></td>
</tr>
<tr>
<td height="136"></td>
<td colspan="4" rowspan="3" valign="top" bgcolor="#999933"><p>&nbsp;</p>
<p>&nbsp;</p>
<p>&nbsp;</p>

```





```
<td></td>
```

```
</tr>
```

```
</table>
```

```
</div>
```

```
<map name="Map">
```

```
<area shape="rect" coords="12,28,287,135" href="senate2.htm">
```

```
</map>
```

```
</body>
```

```
</html>
```