KWARA STATE POLYTECHNIC, ILORIN

INSTITUTION OF INFORMATION COMMUNICATION TECHNOLOGY

A TECHNICAL REPORT ON STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

Undertaken at

MIOX INTERNATIONAL COMPANY

ILORIN, KWARA STATE

Submitted to

THE DEPARTMENT OF COMPUTER SCIENCE

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ACKNOWLEDGEMENT

I thank Almighty ALLAH, the creator of Heaven and Earth for granting me the grace and privilege to be able to complete this SIWES program successfully and on schedule.

I also acknowledge the effort of my parent (Mr. and Mrs. **MUDATHIR)** for their moral and financial support during the industrial training. I also acknowledge the effort of my industrial based supervisor (Mr, Ismail Olamide) for his full support and motivation in Computer Website Design and some application like, Microsoft Power point, CorelDraw and Microsoft Word, g iven me the privilege to participate in the practical aspect of what i have learn during the industrial training.

DEDICATION

I dedicate my industrial training report to almighty god, who has given me the grace to participate in the SIWES program, to my parents and as many that have contributed greatly to the success of my industrial training.

ABSTRACT

This report is a summary of all work experience I have been able to gather during my SIWES training programme at **Miox International Company.**

The report report covered the experience acquired outside the institution as a challenge to be exposed to industrial sector after graduate as a basic knowledge acquired in admire computer institute for four (4) months. Having acquired Knowledge on Website Design, and some application like, Microsoft Power point, CorelDraw and Microsoft Word, given me the privilege to participate in the practical aspect of what i have learn during the program.

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CHAPTER ONE

INTRODUCTION

1.0 HISTORY OF SIWES

The Student Industrial Work Experience Scheme (SIWES) is program which forms part of the academic standards in the degree program for Nigerian Universities. The Federal Government of Nigeria introduced the policy on Industrial training, called the Student Industrial Work Experience Scheme (SIWES) IN 1974. The Industrial Training Fund (ITF) is in charge of this program which is under the umbrella of the Ministry of Education. SIWES was designed to help students acquire the necessary practical education/experience in their fields of study and other related professions.

This is an effort which was created in order to compliment the theory taught in the classrooms of the Nigerian tertiary institutions. This objective of the program is exposing students to the use of various machines and equipment's, professional work methods and ways of safeguarding the work areas in industries as well as other organizations. SIWES was established to impact practical knowledge to students with respect to their various disciplines.

This training is funded by the Federal Government of Nigeria and coordinated by the Industrial Training Fund (ITF) and the National Universities Commission (NUC). The SIWES program involves the student, the Universities and the industries.

1.1. AIMS AND OBJECTIVES OF SIWES

The objective of SIWES among others include to:

- The program teaches the student on how to interact effectively with other workers and supervisors under various conditions in the organization.
- It will help students to gain increased maturity and understanding of the workplace.
- The students will have chance to evaluate companies for which they might wish to work.
- It exposes students to work methods and techniques in handling equipment and machines that may not be available in educational institution.
- The program provides students with an opportunity to apply their knowledge in real work and actual practice.
- SIWES increases a student sense of responsibility.

CHAPTER TWO

2.0 DESCRIPTION OF THE ESTABLISHMENT OF ATTACHMENT

Miox International Company is a fully indigenous and non-governmental company that provides clients with quality, cost effective and innovative IT and security solutions, Located at **Ilorin, Kwara State.**

Miox International Company focuses on total client satisfaction. The Company has built reputable standard over the years from her vast technical knowledge and competence, in project management and execution.

2.1 OBJECTIVES OF ESTABLISHMENT

To be a first choice Information and Communication Technology (ICT) company with the idea of rendering unmatchable excellent professional solution to our clients in line with emerging technology.

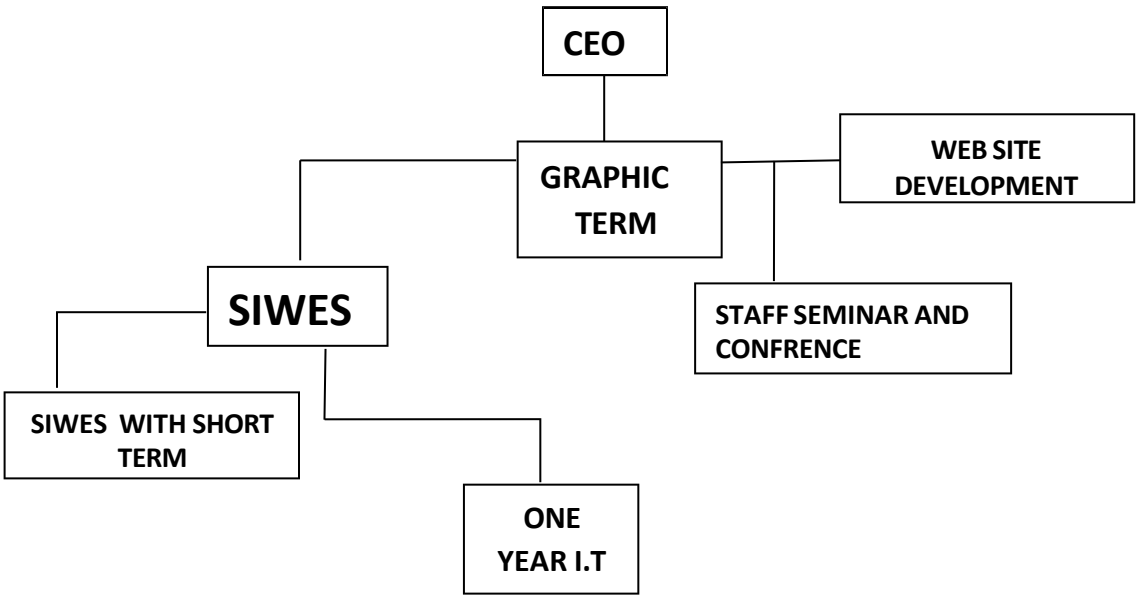
2.2 MISSION OF THE COMPANY

Our reason for existing as a company is to provide unbeatable first choice consistent professional service solution.

2.3 CORE VALUES

- Services
- Commitment
- Excellence
- Professionalism

2.4 ORGANZATION STRUCTURE OF MIOX INTERNATIONAL COMPANY



2.5 COMPANY AREA OF SPECIALIZATION

With a team of professional Computer programmers, web development, data science, Microsoft Word, Graphic designers, UI/UX, the Company has a reputable recognition in the following areas:

- **SOFTWARE DEVELOPMENT**

Their customer-centered approach enables their developers to capture your business requirements and develop a fully customized software solution that solves your unique business needs.

If you are looking for a reliable software development company to enhance your business performance, that differentiates you from your competitors and helps you become more cost efficient, they are in a better position to do that. Their software services have helped their clients achieve the following:

- High quality solutions that tailor fit the business requirements
- Scalable solution that grows with client requirement
- Streamlining customer business work-flow
- Productivity Improvement
- Reduction in overheads and increase in return on investment (ROI)

- **Website Design**

They are set to work as a professional that helps both individuals and companies create and manage their online presence in a dynamic, efficient and unique way which makes you, your product or company stand tall in this virtual world. Your website is the vehicle that targets, attracts, and qualifies your visitors before turning those visitors into monetized customers. The pages and applications that make up your web presence are critical to your web strategy, and **MIOX INTERNATIONAL COMPANY** can help you create a solution that accomplishes your goals. From site redesigns to end to end custom applications, they can put together a solution that you can be confident in from all sides of your web marketing strategy.

- **GRAPHIC DESIGN**

Graphic Design is a field of computer science that involves the visual communication of ideas and messages through the use of typography, color, and images. It involves the creation of visual elements such as logos, graphics, icons, and graphics for websites, magazines, newspapers, and other media.

- **UI/UX DESIGN**

Our company specializes in creating intuitive and engaging User Interface (UI) and User Experience (UX) designs that enhance digital interactions. We focus on understanding user behavior, preferences, and needs to develop solutions that are not only aesthetically pleasing but also highly functional.

CHAPTER THREE

3.0 WORK DONE

During my four-month SIWES training at [**MIOX INTERNATIONAL COMPANY**], I worked as a web development, Microsoft Office and Graphic Design, My responsibilities are to assisting in the design and development of web application using [HTML, CSS and JAVASCRIPT}

3.1 INTRODUCTION TO COMPUTER

A computer system is a micro, a mainframe or super computer consist of both hardware and software. It is an electronic machine capable of accepting data, process the data into meaningful information as output. A computer is a machine or tool, which is capable of:

1. Taking input data
2. Storing the input data.
3. Processing the input data.
4. Producing the output report on paper or computer store for human being to use

The term computer is obtained from the word compute. A computer is an electronics device that inputs (take in) facts (known as data) and then processes (does something to or with it). Afterwards

INTRODUCTION TECHNOLOGY

In simple language, information technology (I.T) is the overall technical where withal required for an efficient gathering, storage, processing utilizing computers, the internet and other electronic tools like camcorders, mobile or cell phone etc.

INPUT AND OUTPUT DEVICES

Some of the Input Devices include:

1. Keyboard
2. Joystick
3. Mouse
4. Electronic pen
5. Track ball etc.

Output Devices Include:

1. Printer
2. Monitor (VDU)
3. Plotters

3.2 PART OF A COMPUTER

There are two main parts of computers, hardware and software.

HARDWARE: are all part of computer he computer you can see and touch or visible part of a computer which means is the physical device one can see and touch the range from the smallest of chips to the total unit called computer system.

SOFTWARE: is list of instructions needed by a computer to perform specific tasks. Software is often called a programs, most times they are compilation of codes written in specific language i.e. jargon and conventions developed by man to achieve certain ends. There are types of software such as utility software, application software etc.

3.3 APPLICATION OF COMPUTER

Computer has varying applications ranging from the most mundane and simple tasks to the highly sophisticated and seemly complicated. Computers can be applied to basic office jobs like typing memos, letters, graphic design, photo imaging and massive data analysis in different fields such as communication, engineering, crime control, medicine and other technology based field to mention but few. Computer has made it possible to keep reliable records, to manage large files to conduct near impossible searches, to manage and protect databases and promote secure and efficient payment system.

3.4 MICROSOFT OFFICE

Microsoft Office is suite of productivity software that includes a range of applications for creating, editing and managing documents, spreadsheets, presentations, and more.

MICROSOFT OFFICE IS CATEGORIZE INTO DIFFERENT TYPES ARE:

Microsoft word, Microsoft Excel, Microsoft Power point, Microsoft Outlook, Microsoft publisher, Microsoft Access, Microsoft One Note, Microsoft Visio and Microsoft Project, Microsoft Picture Manager, Microsoft Info Path

3.5 MICROSOFT WORD

Microsoft word is the typing, editing, storing, and printing of texts through an electrochemical device called computer. It can also be define as the act of manipulation characters to create a professional looking document through the computer.

WHAT IS MICROSOFT WORD

A word processor is a computer program used to create and print text documents that might otherwise be prepared on a typewriter. The key advantage of a word processor is its ability to make changes easily, such as correcting spelling, adding.

STEPS IN LAUNCHING MICROSOFT WORD

Before you get started with Microsoft Word (commonly referred to as MS Word), you will need to locate and open it from the computer. It may be on your desktop.

From the computer desktop:

1. Double-click on the MS Word icon

Go to the Start menu if the MS Word icon is not on the desktop:

1. Click **Start Programs Microsoft Word***

*Occasionally, Microsoft Word will be in a folder called "Microsoft Office" or similar this will make one more step between "Programs" and "Microsoft Word" in the diagram above.

MS Word will open a blank page called "Document

SCREEN ELEMENT OF MICROSOFT WORD

1. **Title Bar:** A place where application name of the user appears.
2. **Menu Bar:** A place where all news name that is use to perform different task appear e.g. File, Edit, Format. e.t.c.
3. **Formatting Bar:** A place where icon that is used to change the attribute of our text e.g. B for bold, I for italic, U for underline e.t.c.
4. **Standard Tool Bar:** This bar show operation symbols that represent a command like new, open, save, print, print preview, copy, cut and so on.
5. **Scroll Bar:** it is denoted by the triangle icon and it is used to move page up and down, left and right.

SAVING DOCUMENT ON MS WORD

When you're done typing and ready to leave your computer, it's essential to save your work (even if you're printing a hard copy—saving should be second nature). To save your work in MS Word, it's important to know *what* you're saving and *where* you're saving it.

1. **Save for the First Time:**

- After typing your document, click on **File** in the Menu Bar at the top of the screen.
- Select **Save** or **Save As** from the dropdown menu.
- If this is your first time saving, a window will appear asking you to choose a location and name for the file.
- In the **File Name** box, type a name for your document.

- Choose where to save it (e.g., **Documents**, **Desktop**, or an external drive).
- Click **Save**.

2. **Save Changes to an Existing Document:**

- If you're working on a document that's already been saved, simply click **File** > **Save** (or press **Ctrl + S** on your keyboard).
- This will update the document with the latest changes.

3. **Save a Copy with a New Name:**

- If you want to save your document under a new name, click **File** > **Save As**.
- Choose a location, type a new file name, and click **Save**.

PRINTING OF FILE

To print your MS Word document: Click **File Print** from the Menu Bar and a **Print** window will pop up on the screen.Click **OK** for your document to start printing.

3.6 MICROSOFT EXCEL

Microsoft Excel is spreadsheet program for creating, editing,and analysing data,such as budgets, charts and graphs.

When Microsoft Excel is fully loaded into the computer memory, the following will be seen.

- The spreadsheet/worksheet
- Rows, Columns and cells
- The mouse pointer and cursor
- Working menu and bars

PLOTTING OF CHART

Charts are graphical representation of the data in a worksheet. They are appealing and makes it easy for users to set comparisons patterns and trends in data. For instance, rather than having to analyse several columns of worksheet you can see at a glance whatever the student in a given class actually make the required average to pass.

Steps in plotting chart:

1. Select the whole data you want to produce it's chart/graph.
2. Click on insert on the menu bar

3. On the sub-menu that appear, click on chart
4. Another dialogue box will appear where you have to select the type of chart you want
5. Locate and click on finish to complete the process. So the chart will be displayed.

HOW TO CALCULATE SUM

We use sum when calculating addition in excel. And before spreadsheet can respond to any mathematical command. It must be entered as an equation. Therefore, to enter a function as an equation. We must firstly start with “equals to “ (=) sign.

Steps in calculating sum:

1. Firstly, the data must be entered correctly as shown below
2. Then keep your cursor on the location you want sum to be displayed by clicking the mouse there
3. Type =sum and open bracket “(“ then, click the mouse on the fist cell you want to sum now type “:” click mouse on the last cell containing the data to be sum
4. Then close the bracket “)”
5. Press enter on the keyboard.

FONT FORMATTING

Font refers to every typed letter in the computer, while the formatting simply implies beautifying e.g. coloring, bolding, italic, underlining etc.

Steps in formatting text:

1. Select the data by simply clicking on the cell
2. Click on format on the menu bar
3. Click on the cells on the sub menu displayed
4. On another box that appears, locate and click on font
5. Use the mouse to scroll through the fonts dialogue box and click the mouse on the desired fonts size, colour, type etc.

INSERTING PERCENTAGE

One can choose insert percentage to replace a given data.

Steps in inserting percentage:

1. Select the data to be replaced
2. Click on format from the menu bar
3. Click on cell on the sub-menu displayed
4. On the dialogue box that appears, click on Number
5. Then, locate and click on percentage
6. Click OK

INSERTING ROWS AND COLUMN

In case you need to type a given line of data in a given rows and column, but discover it has been occupied by another data not worry, you can simply insert another row or column in the same place.

Steps in inserting rows and column:

1. Keep your cursor where you want the row or column
2. Click on insert on the menu bar
3. On the sub-menu displayed, click on either row or column depending on your choice.

TEXT ALIGNMENT

One can choose to rotate their text to a given angle when working in MS-Excel.

Steps in apply text alignment:

1. Select/highlight the text to be aligned
2. Click on format on the menu bar
3. On the sub-menu displayed, click on cells
4. Locate and click on alignment on the dialogue box displayed
5. Locate degree under orientation, click on the degree type in the rotating angle you want e.g. 15^0,30^0,50^0,90^0
6. Click on OK.

SHADING THE CELLS

You can choose to add pattern or color to your worksheet to emphasize some certain point or to enhance it appearance.

Steps in shading the cells:

1. Select the cells to be shaded
2. Click on format on the menu bar
3. Click on cells on the sub-menu displayed
4. On another dialogue box displayed, click on patterns
5. Then, click on the color you want
6. Locate the arrow in front of pattern and click on it, where you will choose the pattern
7. Click on OK.

SORTING

Sorting means arrangement of data either in ascending or descending order. When ascending it implies that the data will be arrange alphabetically while descending start with the last alphabet coming first.

Steps in sorting:

1. Select all the data to be sorted.
2. Click on start on the menu bar.
3. Click on sort on the sub-menu displayed.
4. On another dialogue box that appears, select the heading field you want to sort from the available one under sort.
5. Select either ascending or descending depending on your operation.
6. Click on OK.

3.7 MICROSOFT POWER POINT

Microsoft Power point is a presentation program for creating, editing and displaying slide shows, presentation and lectures. Sometimes abbreviated as PP or PPT, Power Point is a presentation program developed by Microsoft that creates a slide show important information, charts, and images for a presentation. It is most often used for business and school presentations.

Power Point slides may contain only text, or they can include pictures, videos, or animated text and images. Text may be formatted in the same ways as in Microsoft Word, with custom color, size, and font type.

LAUNCHING POWER POINT

Use the following steps to launch Power Point manually from a windows system:

1. Open **My Computer.**

2. Click or select the **C: drive**. If Microsoft Office is installed on a drive other than the **C: drive**, select that drive instead.

3. Navigate to the **Program Files (x86)** folder, then the Microsoft Office folder.

4. In the Microsoft Office folder, if there is a root folder, open that folder. Then open the **Office XX** folder, where **XX** is the version of Office (e.g.,Office16 for Microsoft Office 2016). If there is no root folder, look for and open a folder with "Office" in the name.

5. Look for a file named POWERPNT.EXE and double-click that file to start Microsoft Power Point.

BENEFITS OF POWER POINT

- Power Point provides multiple benefits to users, including:
- It is widely used, and considered the "standard" for presentation software. If you create a Power Point presentation, it's more likely it will be easier for others to open and view.
- It includes many optional presentation features, including slide transitions, animations, layouts, templates, and more.
- It offers the option to export its slides to alternative file formats, including GIF and JPG images, MPEG-4 video, PDF, RTF (rich text format), WMV (Windows Media Video), and Power Point XML.

MICROSOFT OUTLOOK

Microsoft Outlook is an email client program for managing email, calenders, contacts and tasks

MICROSOFT ACCESS

Microsoft Access is a database management program for creating, editing and managing databases, such as inventory tracking, customer management and more.

INTRODUCTION TO GRAPHICS

3.8 GRAPHICS DESIGN

Graphics design is the art of communicating ideas and messages through visual and creative elements such as;

- Typography
- Images
- Colors
- Shapes
- Textures

It involves designing visual content to convey information, express ideals, and capture audiences, attention, typically for;

- Print media (brochures, posters, business cards)
- Digital media (websites, social media, advertisements)
- Branding and identity (logos, icons, packaging)

LIST OF SOFTWARE USED FOR GRAPHIC DESIGN:

- **Adobe Photoshop**
- **Adobe InDesign**
- **Figma**
- **CorelDRAW**
- **GIMP**
- **Canva**

ROLES OF GRAPHIC DESIGN

1. Visual Communication
2. Branding and identity
3. Advertising and Marketing
4. Information Design
5. Entertainment and Education

BENEFITS OF GRAPHICS DESIGN

1. Enhances Visual Appeal
2. Communicates Message Effectively
3. Build Brand Recognition
4. Supports Marketing Sharing
5. Facilitates Information Sharing
6. Creates Emotional Connections
7. Improves User Experience

3.9 CORELDRAW

DEFINITION

CorelDraw is a vector graphics editor developed and marketed by Corel Corporation. It is also the name of the Corel graphics suite, which includes the bitmap-image editor Corel Photo-Paint as well as other graphics-related programs.

BASIC CORELDRAW TOOLS

(i) **Pick Tool:** This tool allows you to pick or select the object and transform it.You can position the object too.

(ii) **Shape Tool:** If you want to edit the shape of objects chosen by the pick tool then you can use this tool.

(iii) **Free Transform Tools:** This tool allows you to alter the image objects with the help of rotation angle, rotation free, and resize. It also lets you bend the image structure.

- **Smudge Brush:** This tool will help you to change as well as distort the picture in general with engaging shorelines.
- **Roughen Brush:** This tool will let you change as well as distort the outline shape of the sketch in general with engaging shorelines.

(iv) **Crop Tool:** This tool can be used in clipping the region of an image that is not needed.

- **Virtual Segment Delete:** If you want to remove an object which is a part of an intersection then you can use this tool.
- **Erase:** It helps to get rid of some areas of the image.

(v) **Zoom Tool:** It helps you in changing the level of magnification in the illustration window in order to look at the object more intently. In simple words, it is used as a magnifying glass.

- **Hand:** It helps in balancing the images that materialize in the image window

(vi) **Freehand Tool:** This tool with the help of a mouse lets you sketch curves and lines. Essentially it is used for sketching.

- **Bezier**: It helps to draw curves in the shape of a solitary line per point.
- **Pen**: It helps in sketching curves in the form of a node.
- **Three-Point Curve:** It helps you in drawing a curve first by identifying the start and the end point, then it's center.
- **Poly-line**: It lets you sketch curves and lines in preview mode.
- **Dimension:** It helps you sketch a horizontal, vertical, oblique and angular line.
- **Interactive Connector:** It lets you combine the two objects accompanied by a line.

(vii) **Artistic Media Tool**: It helps in accessing the sprayer, brush, calligraphic, pre-set and pressure tools.

- **Rectangle Tool:** This tool helps you in drawing squares and rectangles to initiate boxes and terms.
- **Three-Point Rectangle:** If you want to arrange boxes and create terms from one point to another point then this is the tool.

(viii) **Ellipse Tool:** This tool helps you sketch circles and ellipses.

(ix) **Polygon Tool:** If you want to sketch stars and polygons in a symmetric manner then you can use the polygon tool.

- **Star**: This tool can be used to draw stars.
- **Complex Star:** This tool allows you to create stars that have intersection angles and complex shapes.

(x) **Basic Shapes Tool:** This tool helps you to select from a complete set of forms such as a right-angle triangle, smiley face, and a hexagram. You can draw arrows and slanted rectangles.

- **Arrow Shapes:** You can draw arrows ranging from diverse shapes such as arrowheads, direction, etc.
- **Flowchart Shapes:** You can create a flowchart with this tool.

(xi) **Text and Table Tool:** This tool helps you in typing words straight on the screen as a paragraph text or a creative text. The table tool helps you in creating and editing tables.

(xii) **Dimension Tools:** This tool allows you to draw numerous lines like segment, slanted, horizontal, vertical, and three-point dimensions.

(xiii) **Connector Tools:** This tool helps you in drawing a straight line, right-angle, edits anchor connector line and rounded right-angle connector lines.

(xiv) **Interactive Tools:** Interactive Blend: Boxes and terms can be created using this tool.

- **Interactive Distortion:** It helps you in applying a pull or push distortion and a zipper distortion to an object.
- **Interactive Drop Shadow:** It helps you to put an object into the shadow.
- Interactive Fill: It helps you to apply numerous amount of fills to an object.
- **Interactive Mesh:** If you want to apply network lines to an object then you can use this tool.

CHAPTER FOUR

4.0 WEB DESIGN DEPARTMENT

This department was where my Industrial Training took place where i was grounded and expose to the website world especially the creation of websites taking me step by step with practical all through the process.

4.2 DEFINITION O F TERMS

The following are terms that were made use of, in this department

- ✓ **WEBSITE:**

A website is a set of related webpages containing content such as texts, images, videos, audios, etc. A website is hosted on at least one web server, accessible via a network such as the internet or a private LAN through an internet address known as a URL (Universal Resource Locator). A publicly accessible websites collectively constitutes the World Wide Web (WWW).

- ✓ **WEBPAGE:**

A webpage is a document, typically written in plain text interspersed with formatting instructions of hypertext nark up language (HTML, XHTML). A webpage may incorporate elements from other websites with suitable anchors. Webpages are accessed and transported with the hypertext transfer protocol (HTTP), which may occasionally employ encryption (HTTP secure, HTTPS) to provide security and privacy for the use of the webpage content. The user's application often a web browser renders the page content according to its HTML mark-up instructions into a display terminal.

- ✓ **HTTP:**

This stands for Hyper Text Transfer Protocol which is the set of rules for transferring files (text, graphic, images, sound, video, and other multimedia files) on the World Wide Web.

- ✓ **URL:**

This stands for Uniform Resource Locator and as the name suggests, it provides a way to locate a resource on the web, the hypertext system that operates over the internet.

4.2 INTRODUCTION TO WEB DEVELOPMENT

Web Development is the process of building and maintaining website, web application and mobile application using various programming language, framework and tools. It is divided into (3) which involve:

- Frontend development
- Backend development
- Full – stack development

✓ **Frontend development:** creating user interface user experience and client side logic using html, CSS, and JavaScript. And framework likes react angular, or value

✓ **Back-end development:** building server-side logic database integration and API connectivity using language like java, python, ruby, and framework like node.js.

✓ **Full- stack development:** combining frontend and backend development to create a complete web application

Web development involves various aspects such as:

1. Web design
2. User experience (ux) design
3. Web security
4. Mobile application development
5. Web assembly

Web developer uses various tools such as:

1. Text editor (e.g. visual studio code)
2. Integrated development environment (IDE)
3. Database management system
4. Testing framework

4.3 FRONTEND DEVELOPMENT

HTML (HYPERTEXT MARKUP LANGUAGE)

Html (Hypertext Markup Language): is the standard markup language used to create web page it's the backbone of a website, providing the structure and content that the web browser render the user. It defines the structure and layout of a web page, html consists of series of element, represented tags (< >), these elements include:

1. Heading (h1 – h6)
2. Image (img)
3. Span (span)
4. Title (title)
5. Paragraph (p)
6. Form (form input, select) etc

HTML AND ITS PROPERTIES

HTML stands for **H**yper**t**ext **M**ark-up **L**anguage, and it is the most widely used language to write Web Pages.

- ✧ **Hypertext** refers to the way in which Web pages (HTML documents) are linked together. Thus, the link available on a webpage is called Hypertext.
- ✧ As its name suggests, HTML is a **Markup Language** which means you use HTML to simply "mark-up" a text document with tags that tell a Web browser how to structure it to display.

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers.

Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

HTML TAGS:

As told earlier, HTML is a markup language and makes use of various tags to format the content.

These tags are enclosed within angle braces **<Tag Name>**. Except few tags, most of the tags have their corresponding closing tags. For example, **<html>**has its closing tag**</html>**and **<body>**tag has its closing tag **</body>**tag etc

Tag	Description
<html>	This tag encloses the complete HTML document and mainly comprises of document header which is represented by <head>...</head> and document body which is represented by <body>...</body> tags.
<head>	This tag represents the document's header which can keep other HTML tags like <title>, <link>, <script language =”javascript”> etc.
<title>	The <title> tag is used inside the <head> tag to mention the document title.
<body>	This tag represents the document's body which keeps other HTML tags like <h1>, , <p>, <table> etc.
<h1>	This tag represents a heading
<p>	This tag represents a paragraph.
<b>, <i>, ,	Bold, italic, list, unordered list

The following are the names of tags and their description

HTML DOM [DOCUMENT OBJECT MODEL]

4.4 CSS (CASCADING STYLE SHEETS)

CSS (Cascading Style Sheets): is a styling language used to control the layout and visual appearance of web page written in html. It also, used in target specific html element to apply style and consist of properties and value example (color: red; padding: 10px;,) etc

HOW TO CONNECT YOUR CSS TO YOUR HTML

We can connect CSS to html in 3 ways:

1. Inline CSS
2. Internal CSS
3. External CSS

1. Inline CSS: written directly within an html element using the style attribute.
Example; this is inline CSS
2. Internal CSS: written within an html file using the <style> tag in the <head> section.
Example: <style> /* style here */ </style>
3. External CSS: is separate from html while internal and inline CSS are embedded within html. It generally preferred for maintainability and scalability.

table's border, and the padding around images or other objects. CSS gives

CSS AND ITS PROPERTIES

CSS stands for **C**ascading Style Sheet used for formatting html document. It is a style sheet

language used for describing the presentation of a document written in a mark-up language.

Note: CSS code is not written the same way as HTML code is. This makes sense because css is not HTML, but rather a way of manipulating existing HTML.

REASONS FOR CSS

The following are reasons why CSS is better

1. It saves time

2. It eradicate the idea of using repeating codes

3. It provides efficiency in design and updates: with css, we are able to create rules, and

apply those rules to many elements within the website.

4. It creates external file (server side) for managing html content

CSS RULES OVERRIDING

1. Any inline style sheet takes the highest priority, so it will override any rule defined in <style>……</style> tags.

2. Any rule defined in <style>……</style> tags will override the rules defined in any external style sheet file.

CSS COMMENTS

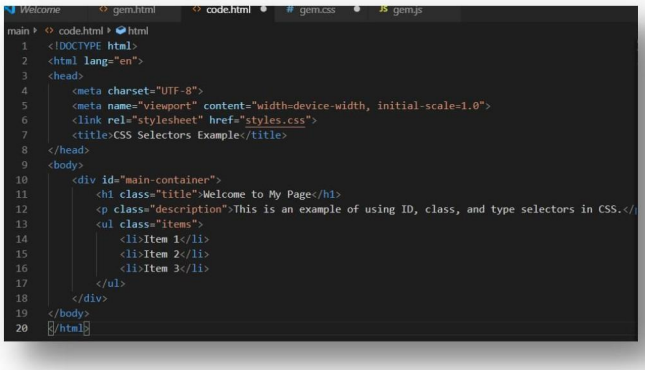
To simply put comment inside a style sheet you use /*..... */, you can use it to comment multi-line blocks in similar way as you do in c and c++ programming language.

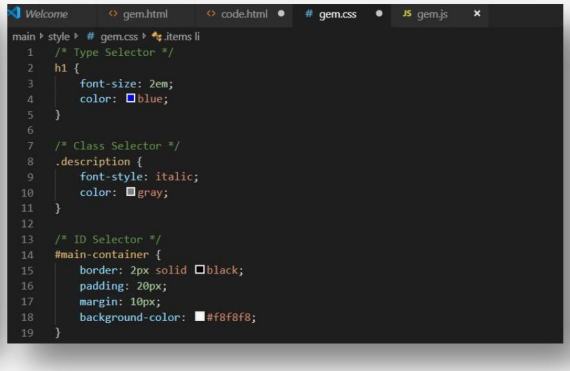
CSS SELECTOR

CSS (Cascading Style Sheets) selectors are patterns used to select elements in an HTML document that you want to style.

TYPE OF CSS SELECTOR

1. Type Selector: Targets all elements with a specific tag name (e.g., h1, p).
2. Class Selector: Targets all elements with a specific class (e.g., .nav, .header).
3. ID Selector: Targets a single element with a specific ID (e.g., #header, #footer).





4.5 JAVASCRIPT

JavaScript: is a high-level dynamic and interpreted programming language used for client-side scripting on the web. It allows developer to create interactive web page, web application and mobile application. It is used for:

1. Client – side scripting
2. Server – side programming
3. Game development
4. Mobile development

WAY TO DECLARE A VARIABLE IN JAVASCRIPT

1. Var.
2. Let.
3. Const.

1. Var.: is a global object that can be access anywhere. It didn't have a scope.

Example: var name: "mercy";

Console.log (name)

2. Let : is a block scope ,

Anything inside curly bracket define scope

Example: {

Let name = "john";

}

Console.log (name);

CONCATENATION

Concatenation: mean joining two things together to become one. Using template string to concatenate:

1. Back tick
2. Dollar sign
3. Curly bracket

Example:

Let first name = "jerry"

Let second name = "Akanke"
let full name = $`{first name}${second name}`

Console.log (full name);

- **Console:** this is a feature in almost all browser it work with java Script to output a value to the console.
- **Alert [ ] method:** is a built in function that display a message box with a specified message and an ok button. it is often used to alert or notify the user of something important

DATA TYPE IN JAVASCRIPT PROGRAMMING

Data type is a classification of data based on its format, size, and set of values, it can hold. JavaScript Is a dynamically-typed language, which means that you don't need to declare the data type of a variable before using it?

TYPE DATA TYPE IN JAVASCRIPT

1. **Number:** represents a numeric value e.g., 42,3.14
2. **String:** represent a sequence of character e.g., "hello"
3. **Boolean:** represent a true or false value.
4. **Null:** represent the absence of any value.
5. **Variable:** Are containers that hold a value think of it like a labeled box where you can store value. E.g.,

Age =20,

console.log (age)

6. **Array:** represent a collection of value, e.g., [1,2,3,4,5,6]

Method of array

1. **Push:** it is use to push information into array

Example:

```
Let user =
[ "Samuel",
"Jade",
]
ser. Push ("favor")
Console.log (user)
```

2. **Pop :** is used for delete item from the back

Example:

```
Let user = [ ]
User. push ("Tom")
User. push ("Sunday")
User.pop ("favor")
Console.log (user)
```

3. **Shift () method:** is used to remove the first element from an array and return that element. It change the length of the array and shift all the element down by one position

```
/*
Let color = ["red", "green", "blue", "yellow",]
Console.log (color. shift ()); // output: "red",
Output ["green", "blue", "yellow",]          */
```

4. **Un-shift () method**: is a built-in JavaScript array method that adds one or more elements to the beginning of an array. It modifies the original array and returns the new length of the array after the elements have been added.

Example:

Let fruits = ['banana', 'orange', 'apple'];

fruits. Un-shift ('mango'); // Adding a single element

console.log (fruits); // Output: ['mango', 'banana', 'orange', 'apple'].

7. **Object:** is a complex data type that allows you to store collections of data and more complex entities. Objects can hold multiple values in the form of key-value pairs, where each key (also known as a property) is a string (or a Symbol) that map to a value, which can be of any data type, including another object or even a function.

Example;

Const person =

{ Name: "Alice",

Age: 25,

Is Student: false

};

console.log (person)

8. **Function:** is a reusable block of code that performs a specific task. Functions allow you to encapsulate logic, making it easier to write, manage, and reuse code. Functions can take inputs (called parameters), perform operations, and return outputs (values).

2 Common Way To Declare A Function

1. **Function Declaration:** is a way to define a named function using the function keyword. This is one of the most common ways to create functions in JavaScript. Function declarations are hoisted, meaning they can be called before they are defined in the code, making them flexible for organizing code.

Example:

Function functionName (parameter1, parameter2) {

// Code to be executed

Return result; // Optional

}

Example:

```
Functions add (a, b)
{ Return a + b;
}
console.log (add (3, 5)); // Output: 8
```

2. An arrow function: is a feature in JavaScript introduced with ECMAScript 6 (ES6) that provides a more concise syntax for writing function expressions.

```
Const function Name = (parameter1, parameter2) => {

// Code to be executed

Return result; // Optional

}
```

Example:

```
Const subtract = (a, b) => a - b; // Single expression, implicit return

console.log (subtract (10, 4)); // Output: 6
```

CONDITIONALS/DECISION MAKING IN JAVASCRIPT

Condition or decision-making in JavaScript allows you to execute different blocks of code based on certain conditions. This is a fundamental aspect of programming that enables dynamic and flexible application behavior. JavaScript provides several statements for decision-making, including if, else, switch, and the ternary operator.

1. if Statement

If statement: evaluates a condition and executes a block of code if the condition is true.

Example:

```
Let temperature = 30;

If (temperature > 25) {

console.log ("It's a hot day.");

}
```

2. if...else Statement

You can provide an alternative block of code to execute if the condition is false using else.

Example:

```
Let temperature = 20;

If (temperature > 25) {

console.log ("It's a hot day.");

} else {

console.log ("It's not a hot day.");

}
```

3. else if Statement

For multiple conditions, you can use else if to test additional conditions.

Example:

```
Let temperature = 10;

If (temperature > 25) {

console.log ("It's a hot day.");

} else if (temperature < 15)

{ console.log ("It's a cold day.");

} else {

console.log ("It's a mild day.");
```

RULES AND CONVENTION OF JAVASCRIPT

- Semi-Column (;): Java is not compulsory at the end of every JavaScript statement, however it is a good practice to insert a semi-column after scripting statements, because it enhance the readability of the code.
- Comment: The comment in JavaScript is very similar to that of java.
- Quote (“”): Double or Single quote is allowed to en-string characters.

JavaScript allow us to use double and single quote when using quote within another pair of quotes.

- Case Sensitivity: JavaScript is case sensitive scripting lang. e.g in JavaScript variable (a) is different from variable (A).

Rules guiding and variable name in JavaScript are the same with the one in Java.
Data that can be store by variable;

1. Numeric
2. String
3. Boolean (True/False)

Variable Declaration
Var X;
X = 12;
X =] “Ade”
The data type depends on the current value the variable holds.

OPERATORS IN JAVASCRIPT

1. Arithmetic Operator +,-,*,/,%
2. Relational Operator <,>,==,!=
3. Bitwise Operator &,|,^,<<,>>
4. Logical Operator AND, OR
5. Assignment Operator *=,+=,-=,/=,%=
6. Conditional Operator

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 SUMMARY

At the end of this program I was able to extend my knowledge in enhancing the concept on the topic treated. The student's Industrial Work Experience Scheme (SIWES) has provided training ground and has exposed me to different experience and findings in my field of learning. It has also improved my curiosity to the field of computer science and ICT generally. This has gone a long way in equipping me in merging what was actually learnt on the field.

5.1 CONCLUSION

Finally, I would like to conclude by encouraging all students to make good use of their time during SIWES and appreciate his or her profession, because this training. It's actually a forum for ushering one into the labor market.

5.2 RECOMMENDATIONS

1. The training department of ITF should be providing adequate information about the biennial SIWES national conference and workshops on time.
2. All the institution involved should be organizing orientation courses in collaboration with the ITF for their students prior to their attachment with the attendance made mandatory for the students accepted for SIWES and ITF staff.
3. ITF should ensure the regular visitation of the ITF officers to supervising agencies, institutions, employers and students on attachment.
4. Students are most time faced with the problem of placement.
5. The log-book issued to students at attachment by institutions must be checked and signed by the institutions and ITF supervisors responsible during supervision.
6. Ensure payment of allowances for the students and supervisors even if is for only transport of the SIWES student.

CHALLENGES AND IMPROVEMENT OF THE SCHEME

5.3 CHALLENGES

There are challenges that were encountered during the industrial training. These challenges are time demanding and thereby consume a lot of time and effort but to my optimum satisfaction I was able to overcome those challenges which really exposed me to some technical problems that can occur and how to tackle or solve these problems.

- Despite the scheme's goal of providing practical knowledge, some students still experience limited hands-on experience due to the nature of their placement. Certain organizations may not offer sufficient opportunities to apply theoretical knowledge, leaving students with a shallow understanding of their field.
- In some cases, students face inadequate mentorship or supervision during their industrial training. Lack of proper guidance may hinder the learning process, leaving students confused or unable to fully develop their skills.
- Many industries may not have the necessary tools or equipment required for the students' training, which limits their ability to gain real-world experience. This lack of infrastructure can affect the quality of training.
- In many cases, students are not compensated for their work during the SIWES program. This lack of financial support may deter some from fully engaging in the program or lead to challenges in covering transportation or accommodation costs.

5.4 IMPROVEMENT OF THE SCHEME

1. To enhance the relevance of industrial training, polytechnic should strengthen partnerships with industries. This could lead to better placement opportunities that align more closely with students' academic studies and career paths.
2. Providing students with dedicated mentors during their training can significantly improve their learning experience. A mentor can offer guidance, feedback, and support, which is critical for maximizing the benefit of the industrial training.
3. Industries should be encouraged to invest in the necessary equipment and resources to provide a practical learning environment. This would enable students to get a more realistic experience of working in their field.