



**A TECHNICAL REPORT ON  
STUDENTS' INDUSTRIAL WORK EXPERIENCE  
SCHEME**

**HELD AT**

**QUATEC WORLDWIDE ENTERPRISE  
NO 10 ORISUNMINARE OPP SHUKURALLAH BLOCK INDUSTRY ILORIN**

**By**

**OLAWOYE ORİYOMI JAMIU  
ND/23/COM/PT/0011**

**SUBMITTED TO**

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**SEPTEMBER TO DECEMBER, 2024**

### **DEDICATION**

This SIWES report is dedicated to Almighty Allah, creator of heaven and the earth.

OLAWOYE ORİYOMI JAMIU □ □ ND/23/COM/PT/0011

### ACKNOWLEDGEMENT

All thanks to Almighty Allah, the creator of the worlds, for His protection, mercy, goodness and favor throughout my SIWES programme and also for improving to pass through part of the hurdles of my education.

My special appreciation goes to my parents MR. and MRS. Olawoye May God abundantly reward you all (Amen).

Special thanks to all my friends and colleagues who stood by me till now with their patience and understanding to make little out of no time for them to guide and correct me throughout the period of his work and to my SIWES thank you all.

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## ABSTRACT

*This Technical report is based on the knowledge and experience acquired during the course of my Industrial attachment with Softrays Technology Institute. In partial fulfilment of the requirements for the Award of National Diploma (ND) in Computer science. The technical report on Student Industrial Work Experience Schemes (SIWES). The purpose of the report to the authority of Kwara State Polytechnic, Ilorin is to know the student's achievement during their four month (12 weeks) of the attachment in the industry. This program have effect on all tertiary institution like University, Polytechnic and College of Education either own by state or federal must undergo at least two months (8 weeks) to acquire more practical knowledge in their chosen profession.*

OLAWOYE ORİYOMI JAMIU

## CHAPTER ONE

### INTRODUCTION

#### BRIEF HISTORY OF SIWES

The Student Industrial Work Experience Scheme (SIWES) popularly called Industrial Training (IT) by Nigerian students is a yearly program designed by the institution in collaboration with the industries to give students the opportunity to gain practical work experience in their various fields of study or areas of specialization. It is an effort to bridge the existing gap between classroom theories and practical's in engineering, management and other professional programs in the Nigerian Tertiary Institutions.

Training is a key factor in changing expertise of a workforce. The world passing through one of the worst economy crisis in recent times. Both the developed and developing economy are experiencing serious economy downturns. Globalization has turned the world into one big village and whatever happens in one economy into one economy will have effects in other economies, the growing concern among our industrialist is that graduates of our institutions of higher learning, lack adequate practical background knowledge, so as to help industrial production capacity led to the formation of Student Industrial Work Experience Scheme (SIWES) by ITF in the year 1993/1994. It is through this industrial Training that the Educational systems aims at helping students acquire appropriate skills, abilities and competencies both mental and physical, as well as equip the individuals to live in society. The focus of the Industrial Training Fund (ITF) is for the industries of the countries to succeed in the face of the current economy meltdown. No society can achieve meaningful progress without encouraging its youth to acquire necessary practical skills. Such skills enable them to harness available resources to meet the needs of the society.

Student Industrial Work Experience Scheme (SIWES) since the aim of Nigeria's our national policy in education is to build a strong and self-reliant nation, from the

government's decree No. 47 of 8<sup>th</sup> October, 1971 as amended in 1990 constitution which led to the establishment of Industrial Training Fund (ITF) in 1973/1974 and through the formation of this body (ITF), in the year 1993/1974 SIWES was formed. In Nigeria, the current form of cooperative Education is known as the Students Industrial Work Experience Scheme (SIWES). The Students Industrial Work (SIWES) is a planned and supervised training intervention based on stated and specific learning and career objectives and geared towards developing the occupational competencies of the participants.

SIWES Forms part of the approved minimum academic standards In the institutions, and is a core academic requirement carrying six (6) credit units. This requirement must be met by all students in various disciplines before graduation.

### **BODIES INVOLVED IN SIWES**

The main bodies involved in Students Industrial Work Experience Scheme are; the tertiary institutions and the federal Government through the Industrial Training fund (ITF). other supervising agencies include:

1. National University Commission (NUC).
2. National Board for Technical Education (NBTE).
3. National Council for Colleges of Education (NCCE).
4. National Industry /Employers (NECA, NACCIMA, MAN, Government Establishment).
5. Tertiary Institutions (Universities, Polytechnics Colleges of Education).
6. Student Trainees (Engineering, Science, Technology, NCE Technical).

### **The functions of these agencies above are:**

1. Ensure adequate funding of the scheme.
2. Establish SIWES and accredit SIWES unit in the approved institutions.
3. Formulate policies and guidelines for participating bodies and institutions as well as appointing SIWES coordinators and supporting staffs.

4. Supervise students at their places of attachment and sign their log book and ITF forms.
5. Vet and process students log books and forward same to ITF Area office.'
6. Ensure payment of all allowances for the students and supervisors.

### **AIM AND OBJECTIVES OF SIWES**

The specific objective of SIWES are as follows:

1. To provide student with an opportunity to apply their knowledge and actual practices.
2. To make the transition from school to the world of work easier and to enhance student's contacts for later job placement.
3. Advanced countries, with over 100 years of sustained industrial development and requisite technical and human infrastructure, have been able to adequately implement industrial training for their students.
4. They also emphasis on applications, management and handsome experience for students to apply knowledge acquired.
5. It also aid students to acquire practical skills in order to strengthen their work value.
6. Moreover it helps them gain interpersonal and entrepreneurial skills and instil in them the right kind of work attitudes and professionalism through interactions with people in the organizations and observations of their future role in the tertiary.

### **BENEFITS OF INDUSTRIAL TRAINING**

Experts identified industrial experience as necessity for proper job preparation. This is because productivity is enhanced by experience graduate or new entrance into the world of work really needs and early exposure to the value and skills of the industry.

Today Information and Communication Technology (ICT) is changing the way many jobs are performed, thus altering the knowledge and skills required of workers.

The major benefits acquiring to students who participate conscientiously in industrial training are the skills and competencies they acquire. These relevant production skills (RPS) remain a part of the recipients of industrial training as lifelong



assets which cannot be taken away from them. This is because the knowledge and skills acquired through training are internalized and become relevant when required to perform jobs or functions.

### **ABOUT THE COMPANY**

The Organization is called Softrays Technology Institute. Softrays institute is the regional training institute/support center for information technology, certifications, Engineering Designs, Business school and student Industrial Work Experience Scheme (SIWES).

The company is committed to raising techno-preneurs and providing excellent customer care and making products and services affordable.

### **COMPANY'S OBJECTIVE**

1. To produce professional full stack Web Developer.
2. To produce professionals in Engineering Designs (2D& 3D)
3. To offer special training for individuals and organization.
4. To offer consultation services.
5. To produce professional Network specialist.
6. Sales of Accessories.
7. To produce certified Digital Marketer.

## CHAPTER TWO

### WEB DEVELOPING

Website is a collection of related web pages, including multimedia content, typically identified with a common domain name and published on at least one web server. A website may be accessible via a public internet protocol (IP) network, such as the internet, or a private local area network (LAN), by referencing a uniform resource locator (URL) that identifies the sites. Websites can have functions and can be used in various fashions; a website can be a personal website, a commercial website for a company, a government website or a non-profit organization website. Websites are typically dedicated to a particular topic or purpose, ranging from entertainment and social networking to providing news and education. All publicly accessible websites collectively constitute the world wide web, while private websites, such as a company's website for its employees, are typically a part of an intranet.

### WEB DEVELOPMENT

Web development is a broad term for the work involved in developing a website for the internet (World Wide Web) or an intranet (a private network). Web development can range from developing the simplest static single page of plain text to the most complex web based internet applications (or just 'web apps') electronic business, and social network services. A more comprehensive list of tasks to which web development commonly refers, may include web engineering, web design, web content development, client liaison, client side/server-side scripting, web server and network security configuration, and e-commerce development. Among web professionals, "web development" usually refers to the main non-design aspects of building web sites; writing markup and coding....

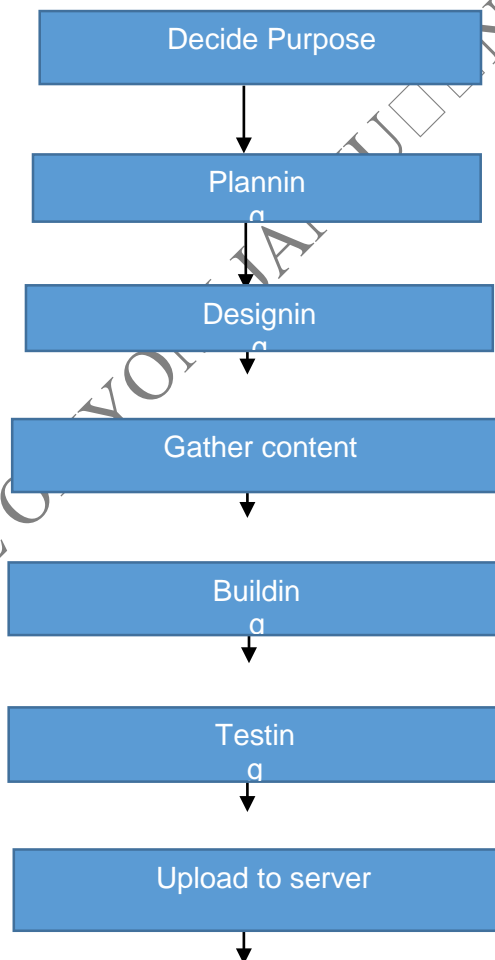
#### Several Aspects of Web Developing

Before developing a web site one should keep several aspects in mind like:

- What to put on the web site?  
Who will host bit?
- How to make it interactive?
- How to secure the source code frequently?
- Will the web site design display well in different browsers?
- Will the navigation menus be easy to use?
- Will the web site loads quickly?
- How easily will the site pages print?

## WEB DEVELOPMENT PROCESS

These are the steps considered while developing a webpage:



Marketing & Maintenance

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## HARDWARE AND SOFTWARE REQUIREMENT:

### Hardware Required:

**TABLE 1: HARDWARE REQUIRED**

Number	Description
1.	Pentium 4 , window XP/Window7
2.	256MB RAM

### Software Required

**TABLE 2: SOFTWARE REQUIRED**

Number	Description
1.	WindowsXP,7
2.	Php 5.1
3.	MySQL
4.	IIS server/XAMPP
5.	HTML, CSS, JavaScript

## TOOLS IN WEB DEVELOPMENT

The Translate and Edit application had been planned to consist of two parts Front end and Back end Development. The front end is the part of web that you can see and interact with (e.g. click side programming).while front end code interact with the user in real time, the back end interact with a server to return user ready results. The front end comprises of HTML, CSS AND JavaScript ending, by using JavaScript modification of the design of a web page can be made immediately, however only by the user.

Normally the user would not have rights to modify web content dynamically on the server side. Logically, administrators are the ones who deal with backend modification of database for example, as they often exercise selective data which should not be available to see are modify by the general public. These front end and back end index includes languages like HTML, CSS, JavaScript, PHP, MYSQL etc. we will discuss all these language in brief as given below:

## HTML

HTML (Hyper Text Mark-Language) is what is known as a “mark-up language” role is to prepare written documents using formatting tags. The tags indicate how the document is presented and how it links to other documents.

The World Wide Web (www for short), or simply the Web, is the worldwide network formed by all the document (called “web pages”) which are connected to one another by hyperlinks.

Web pages are usually organized around a main page, which acts as a hub for browsing other pages with hyperlinks. This group of web pages joined by hyperlinks and centered on a main page is called a website.

The Web is a vast living archive composed of a myriad of web sites, giving people access to web pages that may contain formatted text, images, sounds, video, etc.

**All HTML Documents** must start with a document type declaration:

`<!DOCTYPE html>.`

The HTML document itself begins with `<html>` and ends with

`</html>`. The visible part of the HTML document is between `<body>`

and `</body>`.

### Example:

```
<!DOCTYPE html>

<html>

  <body>

    <h1>My First Heading</h1>

    <p>My first paragraph.</p>

  </body>

</html>
```

### Output:



## My First Heading

My first paragraph.

### HTML Elements

The `<html>` element defines the **whole document**. It has a **start** tag `<html>` and an **end** tag `</html>`.

The element **content** is another HTML element (the `<body>` element). The HTML **element** is everything from the start tag to the

end tag:

`<p>My first paragraph.</p>`

HTML elements with no content are called empty elements. Empty elements do not have an end

The `<body>` element defines the **document**

**body**. It has a **start** tag `<body>` and an **end** tag

`</body>`.

The element **content** is two other HTML elements (`<h1>` and `<p>`).

`<body>`

`<h1>My Heading</h1>`

`<p> paragraph.</p>`

`</body>`

The `<h1>` element defines a **heading**.

It has a **start** tag `<h1>` and an **end** tag

`</h1>`. The element **content** is: My

Heading.

`<h1>My Heading</h1>`

The `<p>` element defines a **paragraph**.

It has a **start** tag `<p>` and an **end** tag

`</p>`. The element **content** is:

paragraph.

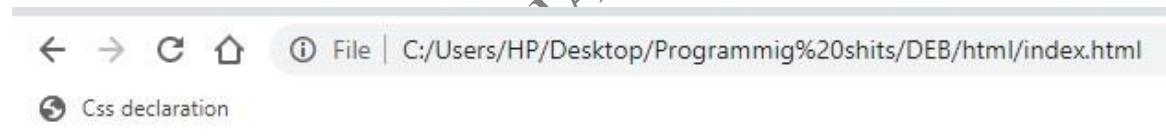


<p> paragraph.</p>

### Example:

```
<!DOCTYPE html>
<html>
  <body>
    <h1>My Heading</h1>
    <p> paragraph </p>
  </body>
</html>
```

### Output:



## My Heading

paragraph.

### HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about an element
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

### The href Attribute

HTML links are defined with the `<a>` tag. The link address is specified in the `href` attribute:

### Example :

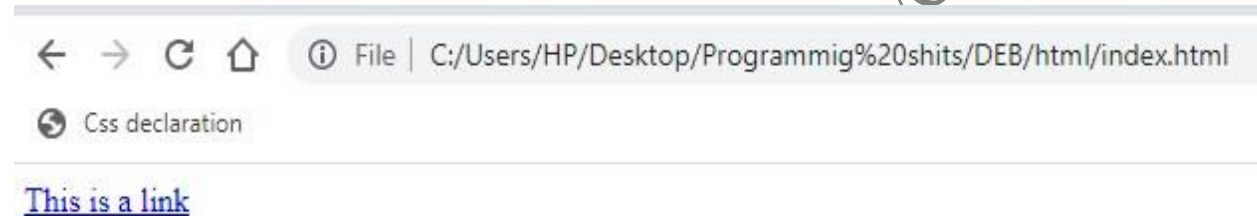
```
<html>

  <body>

    <a href ="https://www.google.com">This is a link</a>

  </body>

</html>
```



### The src Attribute

HTML images are defined with the `<img>` tag.

The filename of the image source is specified in the `src` attribute:

### Example:

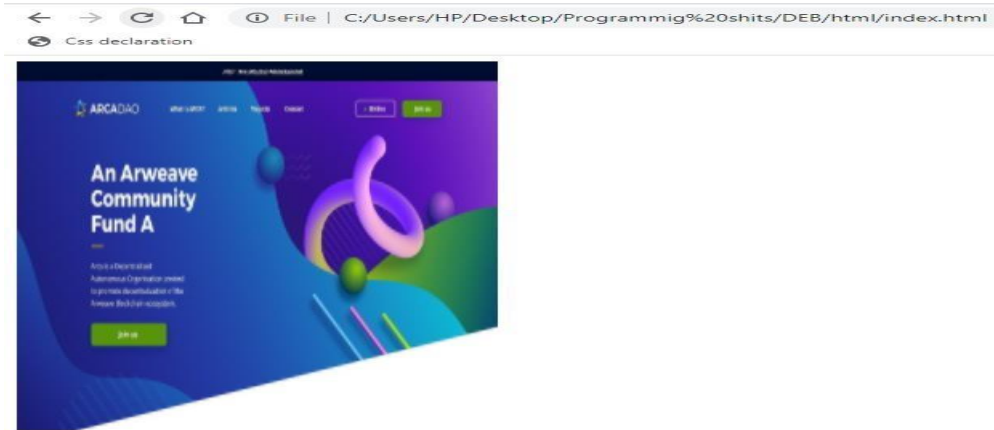
```
<html>

  <body>

  </body>

</html>
```

**OUTPUT:****HTML Table and List**

HTML table is defined with the `<table>` tag. Each table row is defined with the `<tr>` tag. A table header is defined with the `<th>` tag. By default, table headings are bold and centered. A table data/cell is defined with the `<td>` tag. The `<td>` elements are the data containers of the table. They can contain all sorts of HTML elements; text, images, lists, other tables, etc

**Example:**

```
<!DOCTYPE html>

<html >

    <body>

        <!-- unordered lists -->

        <ul >

            <li>weight</li>

            <li>height</li>
```

**<li>age</li>**

**<li>gender</li>**

**</ul>**

**<!-- ordered lists -->**

**<ol >**

**<li>weight</li>**

**<li>height</li>**

**<li>age</li>**

**<li>gender</li>**

**</ol>**

**<!-- nested lists -->**

**<ul >**

**<li>weight</li>**

**<li>height**

**<ul >**

**<li>weight</li>**

**<li>height</li>**

**<li>age</li>**

**<li>gender</li>**

**</ul>**

**</li>**

```
<li>age</li>
```

```
<li>gender</li>
```

```
</ul>
```

```
<table border="1">
```

```
<thead>
```

```
<tr>
```

```
<th>Firstname</th>
```

```
<th>Lastname</th>
```

```
<th>email</th>
```

```
</tr>
```

```
</thead>
```

```
<tbody>
```

```
<tr>
```

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

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

```
<td>babdulmujeeb@gmail.com</td>
```

```
</tr>
```

```
<tr>
```

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

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

```
<td>blesnar@gmail.com</td>
```

```
</tr>
```

```
<tr>
```

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

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

```
<td>rreigns@gmail.com</td>
```

```
</tr>
```

```
</tbody>
```

```
</table>
```

```
</body>
```

```
</html>
```

**OUTPUT:**

← → ↻ 🏠 ⓘ File | C:/Users/HP/Desktop/HTMLSandbox/06\_lists\_tables.html

🔍 Css declaration

- weight
- height
- age
- gender

1. weight
2. height
3. age
4. gender

- weight
- height
  - weight
  - height
  - age
  - gender
- age
- gender

Firstname	Lastname	email
BELLO	Abdulmujeeb	babdulmujeeb@gmail.com
BROCK	LESNAR	blesnar@gmail.com
ROMAN	REIGNS	rreigns@gmail.com

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## WHAT IS CSS

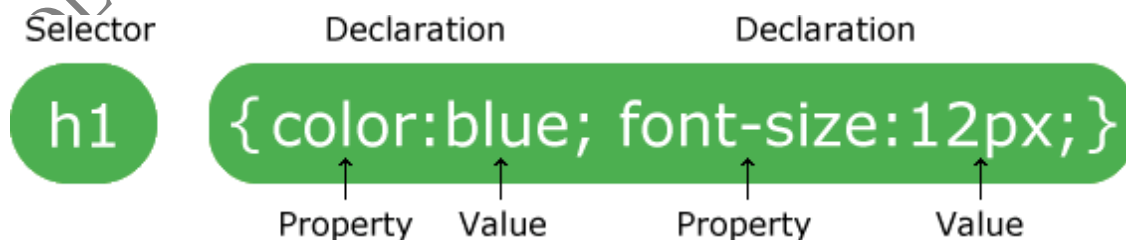
- CSS stands for Cascading Style Sheets.
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media.
- CSS saves a lot of work, it can control the layout of multiple web pages all at once
- External style sheets are stored in CSS files.
- CSS describes how HTML elements should be displayed.
- CSS saves a lot of work! The style definitions are normally saved in external.css files.
- With an external style sheet file, we can change the look of an entire website by changing just one file!
- CSS can be either external or internal.

## CSS Syntax

A CSS rule-set consist of a selector and a declaration block:

CSS selector, the selector points to the HTML element you want to style, the declaration block contains one or more declaration separated by semicolons. Each declaration includes a CSS property name and a value, separated by a colon. A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.

A CSS rule-set consists of a selector and a declaration block:





The selector points to the HTML element you want to style.

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The declaration block contains one or more declarations separated by semicolons. Each declaration includes a CSS property name and a value, separated by a colon.

A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.

## CSS Selectors

CSS selectors are used to "find" (or select) HTML elements based on their element name, id, class, attribute, and more

### The element Selector

The element selector selects elements based on the element name.

### The id Selector

The id selector uses the id attribute of an HTML element to select a specific element. The id of an element should be unique within a page, so the id selector is used to select one unique element. To select an element with a specific id, write a hash (#) character, followed by the id of the element.

### The class Selector

The class selector selects elements with a specific class attribute. To select elements with a specific class, write a period (.) character, followed by the name of the class.

**CSS Comments:** Comments are used to explain the code, and may help when you edit the source code at a later date. Comments are ignored by browsers. A CSS comment starts with

/\* and ends with \*/. Comments can also span multiple lines.

### CSS Styles:

- Background properties
- Border properties

- Padding
- Margin
- Color
- Font properties
- Text properties Link properties/Navigation bar properties

**Example:**

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <style>
```

```
      p {
```

```
        color: red;
```

```
        text-align: center;
```

```
      }
```

```
    </style>
```

```
  </head>
```

```
  <body>
```

```
    <p>Hello World!</p>
```

```
    <p>These paragraphs are styled with CSS.</p>
```

```
  </body>
```

**OUTPUT:**

```
C:/Users/HP/Desktop/Programmig%20shits/DEB/html/index.html
```

Hello World!

These paragraphs are styled with CSS.

**Three Ways to Insert CSS**

There are three ways of inserting a style sheet:

- External style sheet
- Internal style sheet
- Inline style

The External CSS can be declared in the required HTML page as:

```
<link rel="stylesheet" href="CSS_file_name".css">
```

The External CSS file is saved by using the .css extension, whereas the internal CSS is saved in corresponding HTML file using the <style> tag. Using External CSS is much better than using internal. Here are a few reasons this is better,

- Easier Maintenance
- Reduced File Size
- Reduced Bandwidth
- Improved Flexibility

### **External Style Sheet**

With an external style sheet, you can change the look of an entire website by changing just one file, each page must include a reference to the external style sheet file inside the <link> element. An external style sheet can be written in any text editor. The file should not contain any html tags. The style sheet file must be saved with a .css extension.

### **Internal Style Sheet**

An internal style sheet may be used if one single page has a unique style. Internal styles are defined within the <style> element, inside the <head> section of an HTML page

### **Inline Styles**

An inline style may be used to apply a unique style for a single element. To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS properties.

## **CHAPTER THREE**

### **SKILLS ACQUIRED AND CHALLENGES**

#### **TECHNICAL SKILLS ACQUIRED**

Below are list of skills I acquired during my industrial Training at Softrays Technology Institute.

1. Ability to create and design website with the use of html and css. (in a small way)
2. Ability to link images, Audios and videos in html.
3. Ability to design form using html and css.
4. Ability to curve box using border radius in html.
5. Ability to do positioning of items.
6. Ability to link and make use of font awesome.
7. Ability to create a table and style it.

#### **SOCIAL AND FUNCTIONAL SKILLS ACQUIRED**

1. Enhance my Communication and interaction skills.
2. Ability to work with team.
3. Enhance my learning skills.
4. Enables me to have a good business strategy.
5. Enables me to be diligent and punctual in my dealings.

#### **CHALLENGES ENCOUNTERED**

1. Lack of transportation fee.
2. Lack of Electricity.
3. Lack of feeding fee.
4. No payment involved.

## **CHAPTER FOUR**

### **CONCLUSION AND RECOMMENDATIONS**

#### **CONCLUSION**

My Industrial Training at Softrays Technology Institute was a wonderful experience, I was able to acquire Knowledge and skills. In the course of the training I was able to acknowledge my discipline even more than I ever thought it could be, I had opportunity to blend both the theory and the practical aspect I learnt in school (in a little way I can) to perform very important tasks that contributed in a way to my productivity in the company.

My training in Softrays has given me a broad view to the importance and relevance of computer science (Web Development) not only that but also in importance of computer science generally; in the immediate society and the world at the large: I now look forward to impacting it positively after graduation. I have also been able to improve my communication presentation skills and also develop good relationship with my fellow course mate at work. I have also been able to appreciate the connection between my discipline and other disciplines in producing a good result.

#### **RECOMMENDATION**

1. Allowance should be paid to student during or after their program. This would help them a great deal to handle some financial problems during their training period.
2. The student must be diligent, determined and hardworking and discipline during the training. This is to maximum training benefits.
3. Federal Government should, make it mandatory for all ministries, companies and government agency to offer attachment places to students.
4. The Federal Government should make adequate funds, available to the Federal Ministry of Industry to fund the scheme.

5. The Industrial Training Fund (ITF) should organized conference and seminars on (SIWES) program.

OLAWOYE ORİYOMI JAMIU □ □ ND/23/COM/PT/0011

## REFERENCES

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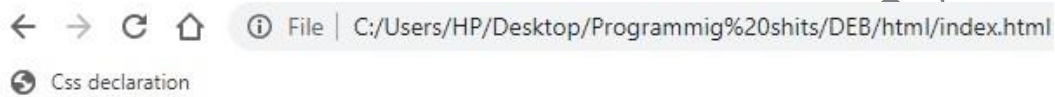
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^ *Northwood, Chris (2018-11-19). [The Full Stack Developer: Your Essential Guide to the Everyday Skills Expected of a Modern Full Stack Web Developer](#). Apress. ISBN 978-1-4842-4152-3.*

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## APPENDIX



## My First Heading

My first paragraph.

### OUTPUT:

C:/Users/HP/Desktop/Programmig%20shits/DEB/html/index.html

Hello World!

These paragraphs are styled with CSS.