



**A TECHNICAL REPORT ON
STUDENT INDUSTRIAL WORK EXPERIENCE**

SCHEME [S.I.W.E.S]

HELD AT

G-TECHNOLOGY

BY

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DEDICATION

This SIWES report is dedicated to GOD Almighty, Mr. & Mrs. **ADEJARE** for their spiritual and financial support during my SIWES program.

ACKNOWLEDGEMENT

With overwhelming joy in my heart, I wish to thank the almighty God the fountain of all knowledge, my strength and my source, the great provider for his unconditional love and favor towards my life and throughout this academic pilgrimage. My immeasurable appreciation goes to my parents **Mr.** and **Mrs ADEJARE** for their parental care and the support they have given me since the day I have been given birth to and for the effort they have put in ensuring that I become someone great in life.

My sincere appreciation also goes to the entire staff and management of **G-TECHNOLOGY**

My acknowledgement is incomplete without acknowledging my H.O.D; **MR. OYEDEPO F.S** for his firmness and tireless effort in making Computer Science Department the best. To all my lecturers, thank you for the grooming and shaping. God bless you all.

Finally, only God is above all sort of mistakes. All errors in this work are strictly and exclusively mine.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

SIWES was established by ITF in 1973 to solve the problem of lack of adequate practical skills preparatory for employment in industries by Nigerian graduates of tertiary institutions.

The Scheme exposes students to industry based skills necessary for a smooth transition from the classroom to the world of work. It affords students of tertiary institutions the opportunity of being familiarized and exposed to the needed experience in handling machinery and equipment which are usually not available in the educational institutions.

Participation in Industrial Training is a well-known educational strategy. Classroom studies are integrated with learning through hands-on work experiences in a field related to the student's academic major and career goals. Successful internships foster an experiential learning process that not only promotes career preparation but provides opportunities for learners to develop skills necessary to become leaders in their chosen professions.

One of the primary goals of the SIWES is to help students integrate leadership development into the experiential learning process. Students are expected to learn and develop basic non-profit leadership skills through a mentoring relationship with innovative non-profit leaders.

By integrating leadership development activities into the Industrial Training experience, we hope to encourage students to actively engage in non-profit management as a professional career objective. However, the effectiveness of the SIWES experience will have varying outcomes based upon the individual student, the work assignment, and the supervisor/mentor requirements. It is vital that each internship position description includes specific, written learning objectives to ensure leadership skill development is incorporated.

Participation in SIWES has become a necessary pre-condition for the award of Diploma and Degree certificates in specific disciplines in most institutions of higher learning in the country, in accordance with the education policy of government.

It is vital that each internship position description includes specific, written learning objectives to ensure leadership skill development is incorporated.

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Operators - The ITF, the coordinating agencies (NUC, NCCE, NBTE), employers of labor and the institutions.

Funding - The Federal Government of Nigeria

Beneficiaries - Undergraduate students of the following: Agriculture, Engineering, Technology, Environmental, Science, Education, Medical Science and Pure and Applied Sciences.

Duration - Four months for Polytechnics and Colleges of Education, and Six months for the Universities.

1.2 OBJECTIVES

The following are some of the objectives of SIWES:

- i. SIWES will provide students the opportunity to test their interest in a particular career before permanent commitments are made.
- ii. SIWES students will develop skills in the application of theory to practical work situations.
- iii. SIWES will provide students the opportunity to test their aptitude for a particular career before permanent commitments are made.
- iv. SIWES students will develop skills and techniques directly applicable to their careers.
- v. SIWES will aid students in adjusting from college to full-time employment.
- vi. SIWES will provide students the opportunity to develop attitudes conducive to effective interpersonal relationships.
- vii. SIWES will increase a student's sense of responsibility.

viii. SIWES students will be prepared to enter into full-time employment in their area of specialization upon graduation.

ix. SIWES students will acquire good work habits.

x. SIWES students will develop employment records/references that will enhance employment opportunities.

xi. SIWES will provide students the opportunity to understand informal organizational interrelationships.

xii. SIWES will reduce student dropouts.

Foster commitment and collaboration with both internal and external constituents.

The 4 months Students Industrial Work Experience Scheme (SIWES) which is a requirement for the completion of my course of study, Computer Science, was undertaken at the Network Operations Centre of the University Of Ilorin. The Organizations function is to provide training services for computer programmers and enable them to learn on the field practitioner.

CHAPTER TWO

DESCRIPTION OF THE ESTABLISHMENT OF ATTACHMENT

2.1 LOCATION AND BRIEF HISTORY OF ESTABLISHMENT

The name of the organization is G-Technology, 2nd Floor Obitech Electronics Beside MTN Office Taiwo Road Ilorin, Kwara State.

It was founded by group of computer scientists whose aim is to develop, train and recreate the world of technology with the motto, together, we recreate the world.

The company started its operation in November, 2019.

Presently the organization has grown wide to the extent that it has several departments.

In fact this institution has grown to the extent of having a staff of 15 or more and people that are been paid by this institution.

2.2 OBJECTIVES OF THE ESTABLISHMENT

- i. To provide world class training services for computer students and IT enthusiast
- ii. To provide a co-working space for experts to work and network
- iii. To provide a community of like-minded technological experts
- v. To create a platform where students of tertiary institutions can put classroom knowledge into real life practice

2.3 ORGANIZATIONAL STRUCTURE

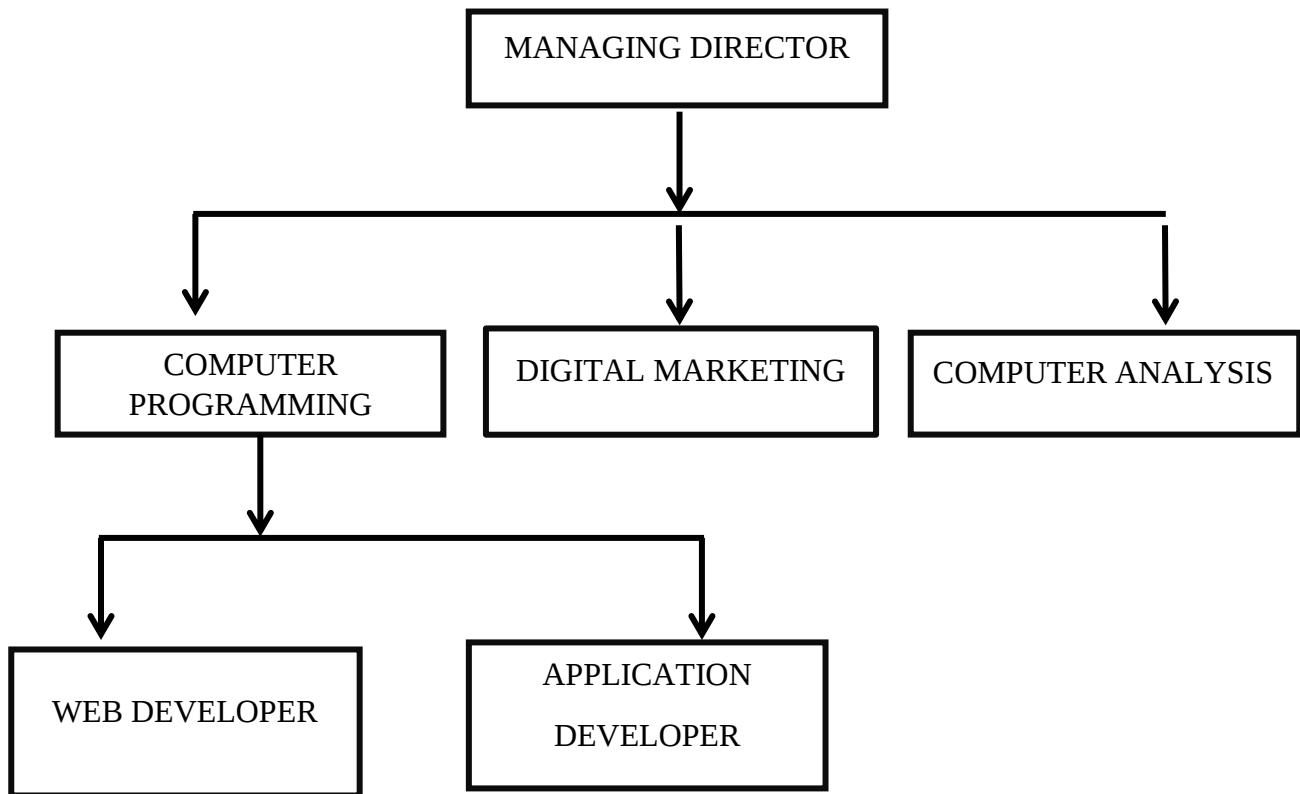


Figure 1. Organisational structure of the company

2.4 THE DEPARTMENTS IN THE ESTABLISHMENT AND THEIR FUNCTIONS

There are three major departments in G-Technology

Administrative Department

Human Resources Department

IT Department

- Administrative department: the main role of the administrator is to ensure the efficient performance of all departments in the organization. They provide motivation to the work force and make them realize the goals of the organization.
- Human resources department: this department is responsible for handling different functions within the organization. The department is responsible for hiring and firing employees, training workers, maintaining interoffice relationships and interpreting employments laws. The department works diligently behind the scenes to ensure that the organization runs efficiently.
- Information Technology Department: this is the department responsible for the architecture, hardware, software and networking of the computers in the company. Some of the activities of this department are programming, web development, technical support and administration.

CHAPTER THREE

INDUSTRIAL EXPERIENCE

3.1 WEB DESIGN

I was trained and exposed to web development, especially the creation of websites using some tools like HTML, CSS etc. this is achieved step by step with practical all through the process.

3.1.1 HTML

HTML is a **markup** language for **describing** web documents (web pages).

- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- A markup language is a set of **markup tags**
- HTML documents are described by **HTML tags**
- Each HTML tag **describes** different document content

HTML TAGS:

HTML tags are **keywords** (tag names) surrounded by **angle brackets**:

`<tagname>Content</tagname>`

- HTML tags normally come **in pairs** like `<h1>` and `</h1>`
- The first tag in a pair is the **start tag**, the second tag is the **end tag**.
- The end tag is written like the start tag, but with a **slash** before the tag name

The following are the names of tags and their description.

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>` 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>, <div>, <p>, <table> etc.

3.1.2 CSS AND ITS PROPERTIES

- CSS stands for Cascading Style Sheets
- CSS defines how HTML elements are to be displayed
- Styles were added to HTML 4.0 to solve a problem
- CSS saves a lot of work
- External Style Sheets are stored in CSS files

REASONS FOR CSS

HTML was NEVER intended to contain tags for formatting a document.

HTML was intended to **define the content** of a document, like:

<h1>This is a heading</h1>

<p>This is a paragraph.</p>

When tags like , and color attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. Development of large web sites, where fonts and color information were added to every single page, became a long and expensive process.

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

METHOD USED BY CSS IN FORMATTING HTML DOCUMENT

1. **Inline Style:** An inline style loses many of the advantages of a style sheet (by mixing content with presentation). Use this method sparingly! To use inline styles, add the style attribute to the relevant tag. The style attribute can contain any CSS property.
2. **Embedded / Internal Style:** An internal style sheet should be used when a single document has a unique style. You define internal styles in the head section of an HTML page, inside the <style> tag,
3. **External Style:** An external style sheet is ideal when the style is applied to many pages.

With an external style sheet, you can change the look of an entire Web site by changing just one file.

Each page must include a link to the style sheet with the <link> tag. The <link> tag goes inside the head section.

CSS SELECTORS AND HOW THEY CAN BE USED

CSS selectors are used to find or select HTML elements based on their element name, id or class

Element Selector: The element selector selects elements based on the element name.

You can select all <p> elements on a page like this: (all <p> elements will be center-aligned, with a red text color)

```
P{  
    text-align: center;  
    color: red;  
}
```

3. **Id Selector:** The id selector uses the id attribute of an HTML element to select a specific element. An id should be unique within a page, so the id selector is used if you want to select a single, unique element. To select an element with a specific id, write a hash character, followed by the id of the element. e.g id="hello" CSS #hello {color: red ;}

4. 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 e.g
`.center {text-align: center ;}`

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.

BACKGROUND AND FONT OF VARIOUS HTML ELEMENTS

You can set the following background properties of an element.

1. The background-color: Is a property used to set the color background of an element.
2. The background-image property: is used to set the background image of an element.
3. The background repeat: Is used to control the repetition of an image in the background.
4. The background position: Is used to control the position of an image in the background.
5. The background attachment: Is used to control the scrolling of an image in the background.
6. The background property: Is used as a short hand to specify a number of other background properties.

FONT WHICH ARE;

1. The Font-family property: This is used to change the face of a font
2. The Font-style property: This is used to make a font italic or oblique.
3. The Font-weight property: This is used to increase or decrease how bold or light a font appears.
4. The Font-size property: This is used to increase or decrease the size of a font.

TEXT DECORATION

This demonstrate how to decorate a text in CSS, the values are none, underline, over line, line through and blink.

3.1.3 PROPERTIES OF HYPERLINK USING CSS

1. The link signifies unvisited hyperlinks
2. The link visited signifies visited hyperlinks
3. The link hovered signifies an element that currently has the user's mouse pointer hovering over it.
4. The link active signifies an element on which the user is currently clicking

3.2 SOME PROJECT DONE AT THE FIRM

A Table Format



The screenshot shows a web browser window with a table titled "Best selling games world wide according to wikipedia". The table has four columns: Rank, Title, release year, and copies sold. The data is as follows:

Rank	Title	release year	copies sold
1	Tetris	1984	143 million
2	Wii Sports	2006	81.99 million
3	Minecraft	2009	49.5 million
4	Super mario bros	1985	35.35 Million

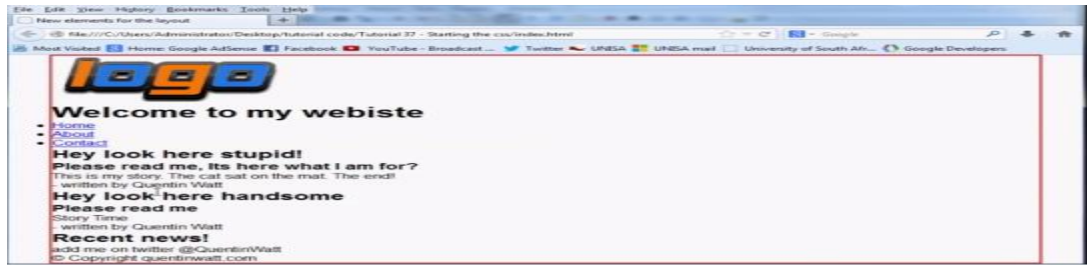
info from wikipedia

A Form Format



The screenshot shows a web browser window with a login form. The form includes fields for "name:" and "password:", a "Checkboxes:" section with three checkboxes labeled 1, 2, and 3, and buttons for "Browse...", "submit", and "reset". A tooltip is visible over the "11 Essential Tips to Writing the Ultimate Tutorial" link, showing the URL: <http://www.dailyblogtips.com/11-essential-tips-to-writing-the-ultimate-tutorial/>.

A Website Layout aligned to the left



CHAPTER FOUR

CHALLENGES AND PROBLEM ENCOUNTERED

It is not uncommon to hear students on their Student Industrial Work Experience Scheme (SIWES) or internship lament over their unpleasant experiences, especially the challenges encountered in the process of finding a firm to accommodate and support them.

While it is expected of students to go out and acquire practical knowledge of their chosen fields, it seems also right for firms to make provisions to support their efforts.

Though internship is peculiar to polytechnics, but most universities have followed suit depending on the course of study of the students. The major objective of internship is to help students apply theoretical knowledge and school-based skills to practice before they enter the world of work.

The program came into existence following decree No. 47 of October 08, 1971 as amended in 1990. This decree gave birth to the founding of the Industrial Training Fund (ITF) in 1973/1974, which in turn established the Students Industrial Work Experience Scheme (SIWES) to bridge the gap between school-based knowledge and work-place skills. Though industrial training provides students with work experience that prepares them for the work place, but the major advantage is that it helps students discover their areas of career interests which they are most likely to acquire.

But despite this advantage, internship isn't without its hiccups, as students face the challenges of getting firms that would not just absorb them in their core areas of competence, but pay them monthly allowances. Vanguard Learning investigation reveals that organizations such as banks request for IT students because of cheap labour, others do not wish to accommodate students who beg for placements, while some organizations will ask the students to pay for the knowledge that will be acquired. Some of the challenges faced are listed below:

- Trekking each day to G-Technology
- Lack of free access to internet for SIWES students at training place.
- Some of the projects I executed took me few days to debug at early stage of working.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 CONCLUSION

In conclusion, this report has dealt with all I was taught both practical and theory during the SIWES program. The SIWES program is of great advantage which every student that participated will forever remember.

5.1 PERSONAL IMPRESSION ABOUT THE ORGANISATION

The Web Development Department of G-Technology is a place to be and thank God that I went there for the industrial training. They have God fearing staffs and student have unlimited and unrestricted access to all their resources this makes it easier for students to learn fast.

5.2 SUGGESTIONS AND RECOMMENDATIONS

I will suggest that the ITF should keep the SIWES program going so that students in the higher institution can gain more practical experience which will prepare them ahead of the labour market demands.

I recommend the Web Development Department of G-Technology, 2nd Floor Obitech Electronics Beside MTN Office Taiwo Road Ilorin, Kwara State for any computer science student interested in web development, it is a place where one can never be the same after being trained and also for any IT department the student might fall into.

