A TECHNICAL REPORT

ON

STUDENTS INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

HELD AT

MM TECH GLOBAL MULTI SERVICEENTERPRISE,

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DEDICATION

I dedicate this technical report to Almighty God, the giver of knowledge, wisdom and who is rich in mercy.

ACKNOWLEDGEMENT

I am using this opportunity to express my profound gratitude and deep regards to Almighty Allah, the creator of heaven and earth, the one who knows the beginning and the end, the alpha and the omega, also to my parents (MR & MRS BABALOLA), and to all those who have contributed immensely to the successful completion of my SIWES programme. The blessings, help and guidance given by them, time to time has carry me this far. I also take this opportunity to express a deep sense of gratitude to compliment my mentor for his cordial support, valuable information and guidance which helped me in completing my SIWES through various stages. And also my regard to the school board of trustees and the staff a very big thanks to all and sundry.

TABLE OF CONTENT

CHAPTER ONE

1.1 INTRODUCTION TO SIWES

Students Industrial Work Experience Scheme (SIWES) is a Skills Training Program designed to prepare and expose Students of Universities, Polytechnics, Colleges of Technology, Colleges of Agriculture and Colleges of Education for the Industrial Work situation they are likely to meet after graduation. The Scheme affords Students the opportunity of familiarizing and exposing themselves handling equipment and machinery that are usually not available in their institutions.

1.2 HISTORY OF SIWES

The Students' Industrial Work Experience Scheme (SIWES) was initiated in 1973 by the Federal Government of Nigeria under the Industrial Training Fund (ITF) to bridge the gap between theory and practice among products of our tertiary Institutions. It was designed to provide practical training that will expose and prepare students of Universities, Polytechnics, and Colleges of Education for work situation they are likely to meet after graduation.

Before the establishment of the scheme, there was a growing concern among the industrialists that graduates of institutions of higher learning lacked adequate practical background studies preparatory for employment in industries. Thus the employers were of the opinion that the theoretical education going on in higher institutions was not responsive to the needs of the employers of labour.

As a result of the increasing number of students' enrolment in higher institutions of learning, the administration of this function of funding the scheme became enormous, hence ITF withdrew from the scheme in 1978 and was taken over by the Federal Government and handed to National Universities commission (NUC), National Board for Technical Education (NBTE) and National

Commission for Colleges of Education (NCCE). In 1984, the Federal Government reverted back to ITF which took over the scheme officially in 1985 with funding provided by the Federal Government.

1.3 OBJECTIVES OF THE PROGRAMME

The specific objectives of SIWES are to:

- Provide placements in industries for students of higher institutions of learning approved by relevant regulatory authorities (NUC, NBTE, NCCE) to acquire work experience and skills relevant to their course of study
- Prepare students for real work situation they will meet after graduation.
- Expose students to work methods and techniques in the handling of equipment and machinery that may not be available in schools.
- Make transition from school to the labour market smooth and enhance students' conduct for later job placement
- Provide students with the opportunity to apply their knowledge in real life work situation thereby bridging the gap between theory and practice
- Strengthen employer involvement in the entire educational process and prepare students for employment in industry
- Promote the desired technological knowhow required for the advancement of the nation.

1.4 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.

iv. To create a platform where students of tertiary institutions can put classroom knowledge into real life practice

CHAPTER TWO

RELEVANT EXPERIENCE AQUIRED IN THE ORGANIZATION

In this chapter, different experience, skill and practices acquired in the student field of study was noted. It also consists of the operation and maintenance training receives and the specific work done.

2.1 INTRODUCTION TO MICROSOFT WORD

❖ CREATING A DOCUMENT

When Microsoft word is started, a basic sheet of electronic paper is displayed on which you can type and text appear in the document and editing occurs.

❖ HOW TO FORMAT A TEXT

Formatting is when you want to change the characters of your text such a font type, size and the thickness. Color or the position which could be superscript or subscript does as following.

- Step 1Highlight the, it is compulsory to highlight the text you want to modify either by the mouse or keyboard before the operation.

- Step 2 click format

- Step 3 click font

HOW TO SAVE A DOCUMENT

Saving a document can be done in two ways:

To save a new document

- Click file from menu bar
- Click save as
- Type a file your document
- Click on save

To save subsequent document after the first saving

- Then Click file the menu bar
- Click save or use shortcut key from keyboard “ctrl s”

PRINTING OF FILE

- Open the file you want to print
- Click file from the menu bar
- Select print from the file menu

□ SPELLING AND GRAMMER CHECKING

- At the beginning of the document click review tab
- Select spelling and grammar from the proofing □

  Select the correct word from the suggestion list bar □

  Click change.

□ TO CREATE TABLE

- Position the cursor to where you want the table
- Click insert tab and click table button
- Select insert table from the dialog box.
- Type the number of column in the column box and the number of rows in the rows box
- Select the desired width for each column or select auto □ Click ok.

□ EXISTING MICROSOFT WORD

- Select the file command from the main menu

- Select exit and click it take you back to the window menu

TO INSERT WORD ART

- From the menu, click insert.
- Highlight function and click word art from the sub menu
- Select the desire word art and click it
- Type the text using the desired font and click ok.

TO INSERT SYMBOL

- Select insert from the main menu
- Select symbol from the sub menu
- Click the desired symbol
- Select close

STEPS REQUIRE TO ACTIVATE MICROSOFT WORD

- Step 1 Boot the system (as state above)
- Step 2 Click start button (or press window on keyboard)

- Step 3 Click on all program
- Step 4 Click on Microsoft office (from the program submenus)
- Step 5 point Microsoft word

2.2 INTRODUCTION TO COREL DRAW

CorelDraw is a vector graphics editor featuring a wide toolset to create unique images or edit them. This software enables users to perform various tasks, like **adding special effects or making a page layout**, etc.

USES OF GRAPHICS DESIGN

- Corporate design
- Editorial design
- Environmental design
- Advertising design
- Communication design
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CORELDRAW FEATURES

- Title bar
- Menu bar
- Standard tool bar
- Property tool bar
- Ruler bar
- Text bar
- Colour palettes

2.3 INTRODUCTION TO MICROSOFT EXCEL

Microsoft excel is a spreadsheet program that was created by Microsoft and can be used on computer tablet, phones. It allows people to conveniently share their work with other organized data. In the modern era, many business collect data from multiple source which include store transaction, online sales and social media.

MICROSOFT EXCEL FEATURES

- Title bar
- Formatting bar
- Formula bar
- Standard bar

FUNCTIONS OF MICROSOFT EXCEL

- Protection of document
- Previewing of document before printing
- It’s a spreadsheet for calculation
- Its used for data arranagement and storing of data

CHAPTER THREE

OTHER RELEVANT SOFTWARES

3.1 INTRODUCTION TO DATA PROCESSING

Data processing is the series of operations performed on data to transform, analyze, and organize it into a useful format for further use.

Various stages and methods are used to manipulate raw data into relevant or consumable formats. These stages often include collecting, filtering, sorting, and analyzing the data.

The goal is to extract pertinent information that can be applied in decisionmaking processes or support existing technologies. To achieve this, data engineers and data scientists employ a range of data processing tools and techniques, ensuring that the output is both accurate and valuable.

STEPS IN DATA PROCESSING

1. **DATA COLLECTION:** The first stage of data collection involves gathering and discovering raw data from various sources, such as sensors, databases, or customer surveys. It is essential to ensure the collected data is accurate, complete, and relevant to the analysis or processing goals. Care must be taken to avoid selection bias, where the method of collecting data inadvertently favors certain outcomes or groups, potentially skewing results and leading to inaccurate conclusions.

2. DATA PREPARATION: Once the data is collected, it moves to the data preparation stage. Here, the raw data is cleaned up, organized, and often enriched for further processing. This stage involves checking for errors, removing any bad data (redundant, incomplete, or incorrect), and enhancing the dataset with additional relevant information from external sources, a process known as data enrichment. Data preparation aims to create high-quality, reliable, and comprehensive data for subsequent processing steps.

3. DATA INPUT: The next stage is data input. In this stage, the clean and prepped data is fed into a processing system, which could be software or an algorithm designed for specific data types or analysis goals. Various methods, such as manual entry, data import from external sources, or automatic data capture, can be used to input data into the processing system.

4. DATA PROCESSING: In the data processing stage, the input data is transformed, analyzed, and organized to produce relevant information. Several data processing techniques, like filtering, sorting, aggregation, or classification, may be employed to process the data. The choice of methods depends on the desired outcome or insights from the data.

5. DATA OUTPUT AND INTERPRETATION: The data output and interpretation stage deals with presenting the processed data in an easily digestible format. This could

involve generating reports, graphs, or visualizations that simplify complex data patterns and help with decision-making. Furthermore, the output data should be interpreted and analyzed to extract valuable insights and knowledge.

6. **DATA STORAGE:** Finally, in the data storage stage, the processed information is securely stored in databases or data warehouses for future retrieval, analysis, or use. Proper storage ensures data longevity, availability, and accessibility while maintaining data privacy and security.

3.2 INTRODUCTION TO BUSINESS DATA ANALYTICAL SOFTWARE

Business analytical data refers to the collection of information gathered from various sources within a company, used to analyze trends, patterns, and insights to inform better decision-making, optimize operations, and ultimately drive strategic business improvements through data-driven approaches; essentially, it's the raw material used to extract valuable knowledge about a business by examining past and current data.

Data analytics software (often called BI or business analytics software) uses statistical techniques to cluster, segment, and interpret business data from multiple sources and present them in a simple format so people can make better decisions.

An Organizational View introduces business analysis concepts, activities, tools, techniques, skills and how they're applied when establishing business data analytics capabilities for the organization.

Business data analytics has become an area of great interest for organizations, as it has been recognized as a means by which organizations can obtain valuable insights from data; supporting more informed business decision-making. As a result, more organizations are investing in business data analytics as a means to deliver on their strategic imperatives, innovate, and obtain competitive advantages in the marketplace. Such investments are driving the demand for more skilled professionals with business data analytics knowledge and experience.

I was taught that this software package can be used effectively for the following in an organization.

1. **Gain Customer Insights**: Business Data Analytics software can be used to gain insights into various aspects of business operations, enabling data-driven decision making by analyzing customer behavior, market trends, sales performance, operational efficiency, and employee productivity, ultimately helping them optimize strategies, identify new opportunities, and improve overall business performance

2. **Customer Analysis:**

   - Identify customer segments and their preferences.
   - Analyze customer lifetime value and predict them.
   - Personalize marketing campaigns based on customer data.
   - Track customer feedback and sentiment analysis.

3. **Sales Performance:**

   - Monitor sales trends and identify areas for improvement.
   - Analyze sales funnel performance and identify bottlenecks.
   - Predict future sales based on historical data.

- Evaluate sales team performance and identify top performers.

4. Market Analysis:

- Identify emerging market trends and opportunities.
- Analyze competitor activity and market share
- Understand customer demographics and psychographics.

4. Operational Efficiency:

- Analyze supply chain data to optimize inventory management.
- Identify inefficiencies in production processes
- Monitor cost drivers and identify areas for cost reduction.

CHAPTER FOUR

4.1 CHANLLENGES AND PROBLEM ENCOUNTERED

The challenges and problems that I encountered during my SIWES training in the organization were:

- **Limited Practical Experience: I** had some difficulties when applying theoretical knowledge to real-world projects. I didn't have access to more practical experience due to insufficient facilities and the fear of spoiling the office appliances.

- **Communication Barriers:** Effective communication is crucial in tech teams. You might struggle with explaining technical concepts clearly to non-technical stakeholders or collaborating with team members across different departments.
- **Imposter Syndrome:** Many interns feel insecure about their skills, thinking they don't belong or aren't capable enough. This self-doubt can affect your confidence, even when you're performing well.
- **Time Management Issues:** Balancing multiple tasks, meeting deadlines, and prioritizing work can be tough, especially if the internship workload is heavy or poorly structured.
- **Lack of Guidance or Mentorship:** Some internships may lack proper supervision, leaving you without clear instructions or feedback. This can make it hard to track your progress or understand expectations.

- **Adapting to Work Culture:** Adjusting to a professional environment, understanding company protocols, or dealing with workplace dynamics can be challenging, especially because it was my first industry experience.
- **Project Complexity:** sometimes, projects given to us can be too advanced or undefined, requiring you to solve problems independently with limited resources, which can be both stressful and rewarding.
- **Networking Challenges:** Building professional connections might feel intimidating, especially for an introvert or unsure how to approach colleagues and industry professionals.
- **Lack of proper incentives: the lack of incentives to cover transportation and feeding allowance**.

CHAPTER FIVE

RECOMMENDATION AND CONCLUSION

4.1 RECOMMENDATION

The following Recommendation is referred to the Establishment I undertook my SIWES program, my college, Industrial Training Fund and the Government; in order to improve and enhance the expected results of the Student Industrial Work Experience Scheme;

1. **Industry Collaboration:** Computer Science students should be placed in tech companies, software development firms, research institutions, or organizations focused on digital innovation. This will ensure they gain hands-on experience with current industry tools, programming languages, and methodologies.
2. **Clear Internship Goals and Objectives:** It is essential to establish specific learning goals for students at the beginning of the SIWES. These goals should focus on skills development in areas such as software development, coding, system design, database management, cybersecurity, and machine learning. Clear goals will help students focus on building practical and relevant skills.
3. **Structured Mentorship Programs:** Assigning students to experienced mentors within their host organizations will help guide their professional development. Mentors can provide valuable feedback, help navigate real-world challenges, and offer career advice to students.
4. **Exposure to the Full Software Development Life Cycle (SDLC):** Students should participate in various stages of the SDLC, such as requirement gathering, design, coding,

testing, and deployment. This will give them a well-rounded understanding of the processes involved in software development and system implementation.

5. **Skills Development Beyond Technical Expertise:** In addition to technical training, students should be encouraged to work on their soft skills, such as effective communication, teamwork, problem-solving, time management, and adaptability. These skills are critical in professional environments and will enhance their employability.
6. **Encouragement of Innovation and Critical Thinking:** Students should be given opportunities to solve real-world problems, work on challenging projects, and think critically about how technology can be used to address industry needs.
7. **Networking and Professional Development:** Students should be encouraged to attend industry events, tech meetups, and conferences. Networking with professionals in the field will provide opportunities for career growth and keep them updated with the latest trends in the tech world.
8. **Regular Performance Feedback and Evaluation:** Host companies should provide regular feedback on the students' performance, and both students and employers should fill out evaluations. This allows for timely adjustments to the student's learning path and ensures maximum benefit from the internship experience.

4.2 CONCLUSION

The Student Industrial Work Experience Scheme (SIWES) plays a vital role in bridging the gap between academic learning and practical application for Computer Science students. By placing students in environments where they can engage in hands-on tasks, problem-solving, and exposure

to current technologies, SIWES enhances their readiness for the workforce. The recommendations above, focusing on structured mentorship, real-world exposure, skills development, and professional networking, will ensure that students gain valuable, marketable skills during their internship. Ultimately, this experience will not only prepare Computer Science students for successful careers but also contribute to the overall growth and development of the tech industry.