STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME [SIWES]

HELD AT

SOFTCODTECH NG, IBADAN, OYO STATE.

WRITTEN BY

ABDULLAHI HAMMED OLANREWAJU

ND/23/COM/PT/0111

A SIWES REPORT SUBMITED TO THE KWARA STATE POLYTECHNIC.

IN PARTIAL FUFILMENT OF THE REQUIREMENT FOR THE AWARD OF NATIONAL DIPLOMA [ND] IN THE DEPARTMENT OF COMPUTER SCIENCE.

AUGUST – DECEMBER 2024

CERTIFICATION

This is to certify that **ABDULLAHI HAMMED OLANREWAJU** with matriculation number **ND/23/COM/PT/0111** undergoes his industrial training **SIWES** at **SOFTCODTECH NG,** Block D, Annex 8, Orisun Hall of Residence, the Polytechnic Ibadan, Oyo State, Nigeria. In partial fulfillment of the award of National Diploma (**ND**) in Computer Science, Kwara State Polytechnic, Ilorin, undersigned by the following people:

…….. . ……

SIWES CO-ORDINATOR **DATE**

…… ……

HEAD OF DEPARTMENT **DATE**

DEDICATION

This SIWES report is dedicated to GOD Almighty, who guided me and made the programme a successful one for me.

It also goes to my loving parent, in the person of Mr. and Mrs. Abdullahi and to my wonderful mentors and friends, for their advice, encouragement and support both financially and morally. May God continue to bless you. (Amen).

ACKNOWLEDGEMENT

My appreciation first goes to God almighty, 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.

To the surprise of my one and only, my next point to call will definitely be my parent for their effort which upholds my success, in this regard, BIG THANKS to them Mr. and Mrs. Abdullahi, what will I? if not for their financial moral, spiritual and parental support, my success would have been delayed. I will say vividly “Oh Allah, have mercy on them even as they nourished me in my childhood.

I am also grateful to my industrial based supervisors **MR. ALADE ABOLAJI YUSUF**. and my tutors for their thorough supervision and useful advice which helped and also contributed to the success of the SIWES program. May the almighty God make their days on Earth longer to reap the fruit of their labour to the fullest in Inshallah.

It is mandated on me that the effort of the following toward my success must duly be recognized from lecturers within the institution; May the blessing of God continue to shower you all for contributing immensely on this programme.

Thanks and GOD bless you all.

PREFACE

This report contains the details of experience gained during the four month students industrial work experience scheme (SIWES) programme at **SOFTCODTECH NG,** Block D, Annex 8, Orisun Hall of Residence, the Polytechnic Ibadan, Oyo State, Nigeria, various activities are also spelt out in the report. Also include the program encounter and recommendations for the improvement of the scheme.

CHAPTER ONE

1.0 INTRODUCTION

This chapter gives a brief history of SIWES, its aims and objectives, as well as a short narrative on my application and posting. It also introduces intelligent solution providers (ISP) of Computer, where I had my SIWES training.

1.1 ABOUT STUDENTS INDUSTRIAL WORK EXPERIENCE SCHEME

The student work experience scheme (SIWES) is a worldwide program practiced in countries like Japan, Australia, USA, Europe, and in African countries too. It is popularly known as co-operative education and referred to as sandwich in Europe. It is a six (6) months students industrial work experience scheme (SIWES) taken in the third year of the degree program, where the students go to various establishments related to their course of study.

The program was initially introduced in Nigeria by the Industrial Training Fund (I.T.F.) which was established under Decree 47 of 1972 by the Supreme Military Council, headed by General Yakubu Gowon. The Decree was billed to take effect from 31st March, 1974 and had as its core objective, the gradual reduction of the percentage of foreign participation in most of Nigeria's economic activities, accompanied by a systematic cooperation of locally oriented skilled manpower into the vast economic sector.

One of the key functions of the ITF is to work as cooperative body with industry and commerce where students in institutions of higher learning can undertake mid-career work experience attachment in industries which are compatible with student's area of study. The students Industrial Work Experience Scheme (SIWES) is a skill Training program designed to expose and prepare students for the Industrial work situation which they are likely to meet after graduation. Participation in SIWES has become a necessary pre-condition for the award of diploma and degree certificate in specific disciplines in most institutions of higher learning in the country in accordance with the education policy of government.

1.2 BRIEF HISTORY OF SIWES

The word SIWES (Student Industrial Work Experience Scheme) was introduce by the federal government in the year 1973 to develop the technological, physical and social skill of our nation, through this, adequate and intelligent student are provide the department involved the actual challenge various discipline before they can be awarded as am National Diploma (ND) graduate.

1.3 AIMS AND OBJECTIVES OF SIWES

- Provide an avenue for students in institutions of higher learning to acquire industrial skills and experience in their approved course of study and also by interacting with people with more experience in the field under consideration.
- Prepare students for the industrial work situation which they are likely to meet after graduation.
- Expose students to work methods and techniques in handling equipment and machinery that are mostly not available in their various institutions.
- Provide students with an opportunity to apply their knowledge in real world situation thereby reducing the gap between theoretical knowledge and practical work.
- Enlist and strengthen employers' involvement in the entire educational process and prepare students for employment in Industry and Commerce

1.4 ROLES OF STUDENT

- Attend SIWES orientation programme before going on attachment.
- Comply with the establishment's rule and regulation.
- Arrange living accommodation during the period of attachment.
- Record all training activity done and other assignment in the log book.
- Complete SPEI from ITF, FORM 8 and get it endorsed by the employer for submission to the ITF.

1.5 OBJECTIVES OF THE REPORT

The objectives of the SIWES report are;

- To make through explanation of the work done during my four month industrial training.
- To fulfill the requirement for national diploma in computer science.
- To contribute to the body of knowledge and to enhance the understanding of the writer about a similar or same job.

1.6 CORE VALUES

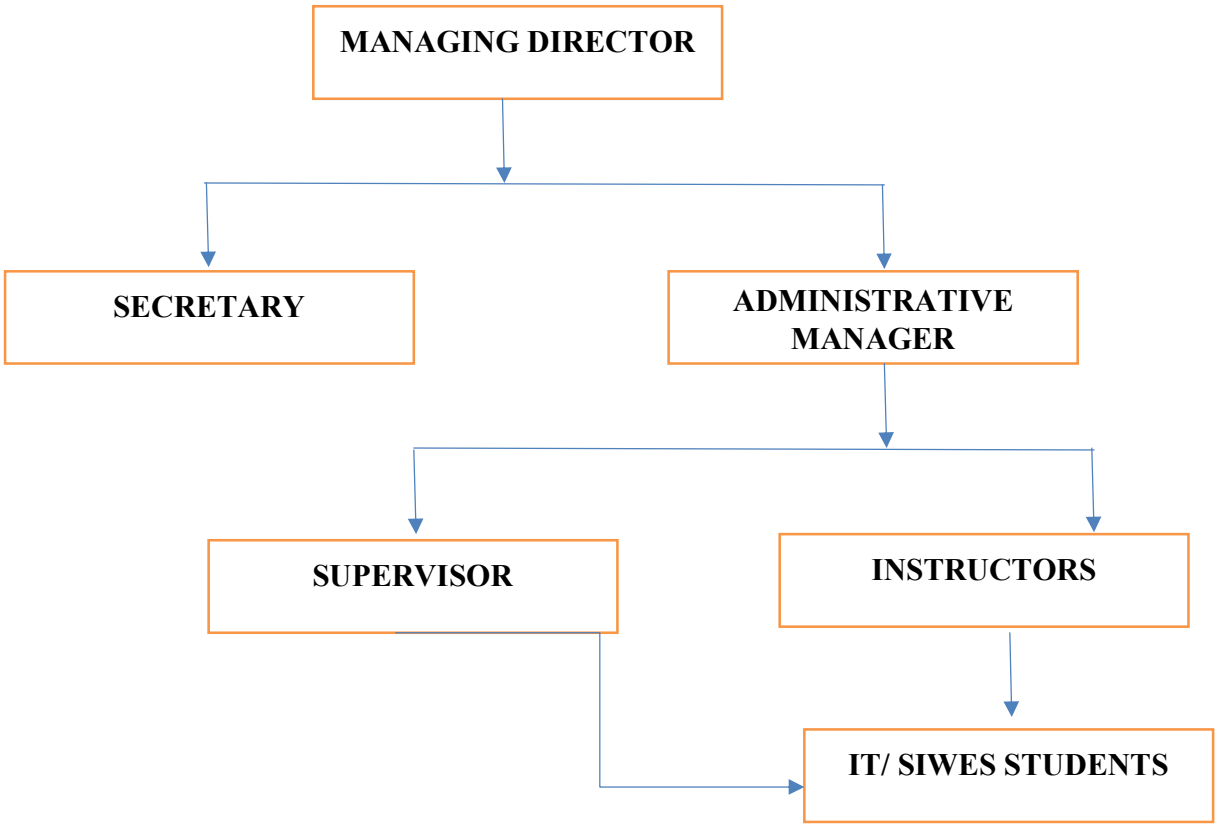
- Integrity
- Services
- Commitment
- Excellence
- Professionalism

1.7 THE LOGBOOK

The logbook issued to student on attachment by the institution was used to record all daily activities that took place during the period of attachment, and it was checked and endorse by the industry based/institution based supervisors and ITF during supervision.

CHAPTER TWO

2.1ORGANIZATIONS CHART OF SOFTCODTECH NG, IBADAN OYO STATE



2.2 BRIEF HISTORY OF SOFTCODTECH NG

Softcodtech is a forward-looking private organization established in the year 2020. It is founded and managed by Mr. Alade Abolaji.

It is a non-governmental organization in Oyo state. They operate ICT which is situated at Computer Science Building, The polytechnic, Ibadan. Oyo State. Their main Headquarters is situated at 7, Adesanya Street, Mafoluku Oshodi, Lagos State.

Softcodtech Ng is focused on developing digital software solutions that are needed for the 21st century.As an information and technology company, they build upcoming developers a way into the programming world.

This company is head by the director and administrative manager next to him followed by the supervisor and the instructors.

2.3 Vision of the Company

Bringing inspiration and innovation to every part of the world through the use of Technology.

2.4 Mission of the Company

The mission of Softcodtech Ng is dedication in solving clients' business challenges by providing services in customized software application and also a learning center for upcoming developers.

2.5 Company Area of Specialization

Softcodtech Area of specialization is categorizes into various sections;

1. Computer programming training
2. Enterprise Software
3. Website Development
4. Mobile Computing
5. IT Consulting / Professional Services.

CHAPTER THREE

3.0 INDUSTRIAL EXPERIENCE

3.1 WEB DEVELOPMENT

Web development is the process of building and maintaining website, web applications, and other online platforms using various programming languages

TYPE OF WEB DEVELOPMENT:

Front-end development: focuses on user interface, user experience, and visual aspects using HTML. CSS.

FRONT_END:

3.1.1HTML: means Hypertext Markup Language is a building block of website. Its coding language that uses tag (element), it's the backbone of a website, providing the structure and content that the web browser render to the user. IDE by visual studio code.

STRUCTURE OF HTML

<! DOCTYPE HTML>

<html>

<head>

<tittle></tittle>

</head>

<body>

</body>

</html>

Tags in HTML

Header (<h1></h6>)

Paragraph (<p>)

Order list (<ol>)

Unorder list (<ul>)

Image (<img>)

Table (<table>)

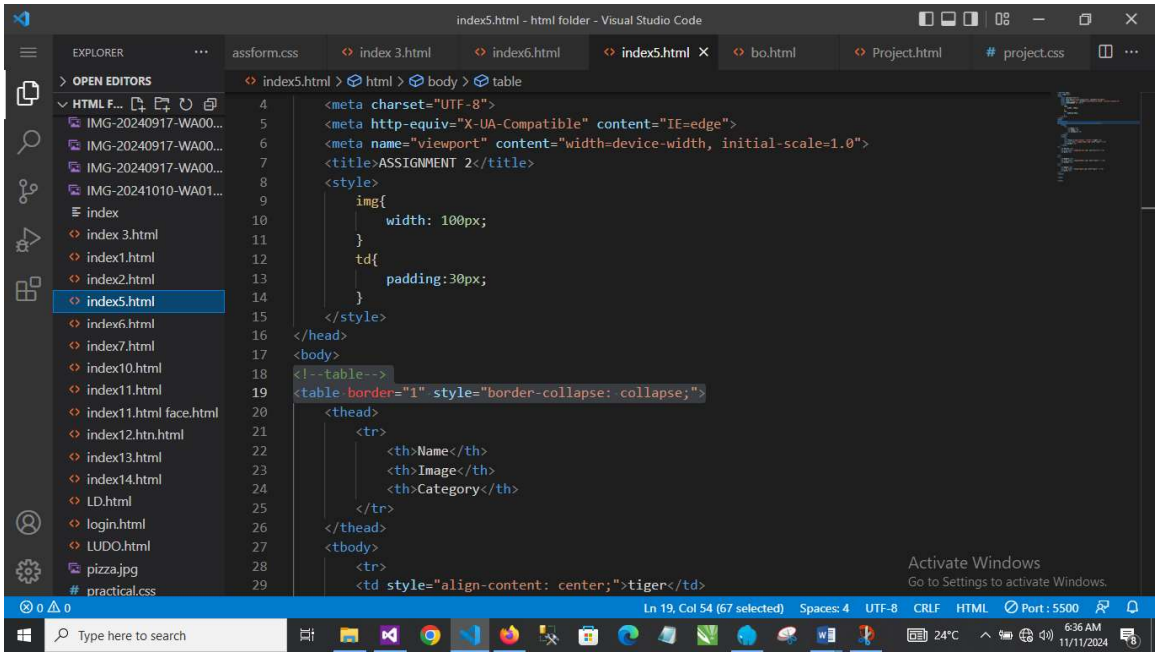
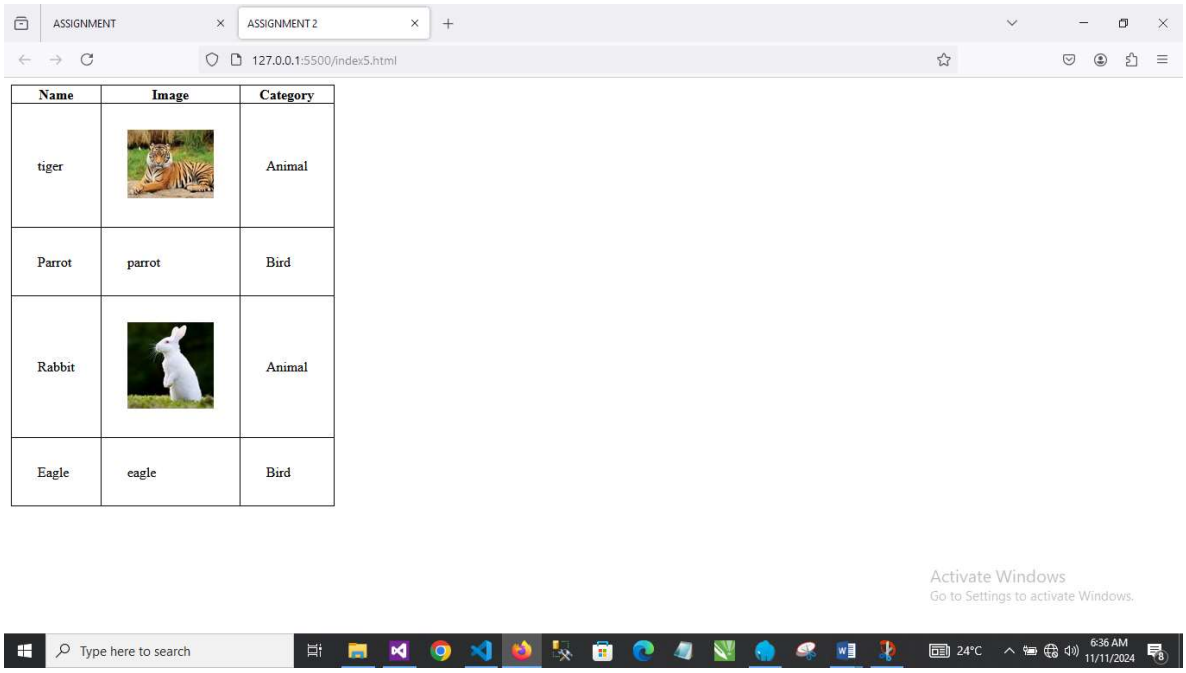


FIG 1. 3.1.2: IMAGE REPRESENTING THE CODE OF HTML



3.1.2 CSS: (Cascading Style Sheet) is a styling language used to control the layout and appearance of web page written in HTML.

TYPE OF CSS

INTERNAL CSS: written within an HTML document (<style> element).

EXTERNAL CSS: written in separate .css file, linked to an HTML document (<link>).

INLINE CSS: written directly in an HTML element (style attribute).

CSS PROPERTIES:

Color Properties: color, background color, border-color.

Font Properties: font size, font family, font weight.

Layout Properties: width, height, margin, padding.

Background Properties: background-image.

Border Properties: border-style, border-radius.

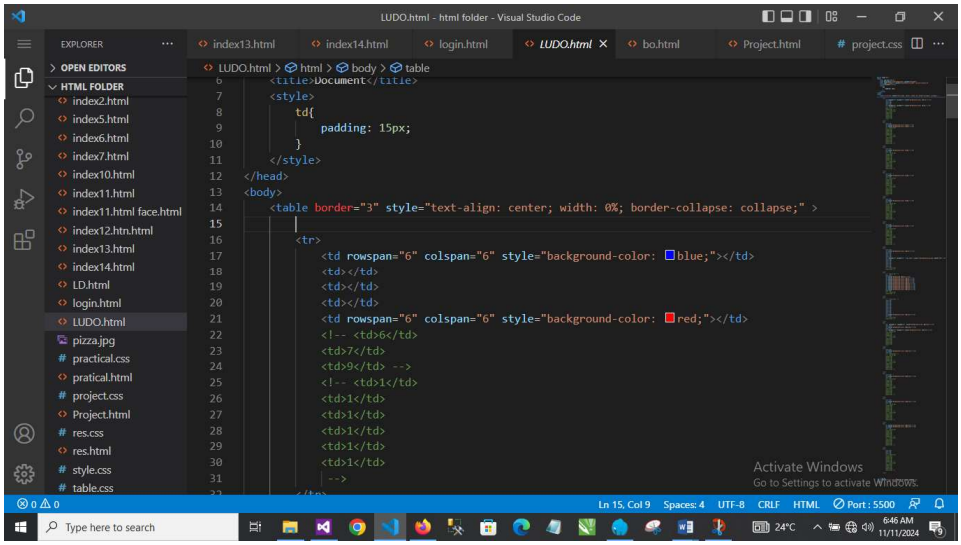


FIG 3. 3.1.4: IMAGE REPRESENTING THE CODE OF HTML FOR LUDO

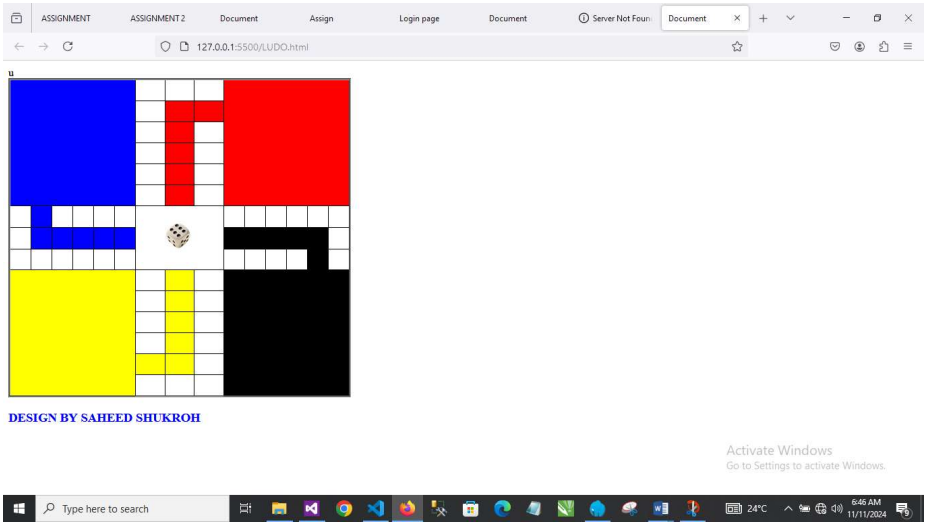


FIG 4. 3.1.5: IMAGE REPRESENTING THE OUTPUT OF HTML FOR LUDO

3.1 SOFTWARE DEVELOPMENT: Software IS the process of designing, creating, testing, and maintaining software applications or systems. It involves a series of steps that transform an idea or a concept into a fully functional software product.

STAGE OF SOFTWARE DEVELOPMENT

- Planning
- Analysis
- Design
- Implementation
- Testing
- Deployment
- Maintenance

TYPES OF SOFTWARE

1. System software

2. Application software

Application software is sub-divided in into some branches, the programming language learnt to develop this applications is C-sharp(C#)

C# (C-Sharp) is a modern, object-oriented programming language developed by Microsoft as part of its .NET framework. It is widely used for building a variety of applications, from web and mobile applications to desktop software and game development.

1. Console application

2. Windows form application

3.1.1 CONSOLE APPLICATIONS

A console application, in the context of c#, are text-based programs that run in a command-line interface, performing specific tasks without a graphical user interface.

It’s ruled by IDE (Integrated Development Environment Visual studio).

3.1.2 STRUCTURES OF CONSOLE APPLICATION

Displaying the Output:

- Console.WriteLine():
- Console.Write();

Accepting the Input:

- Console.ReadLine();
- Console.Read();

To freeze/hold the Input:

- Console.ReadKey();

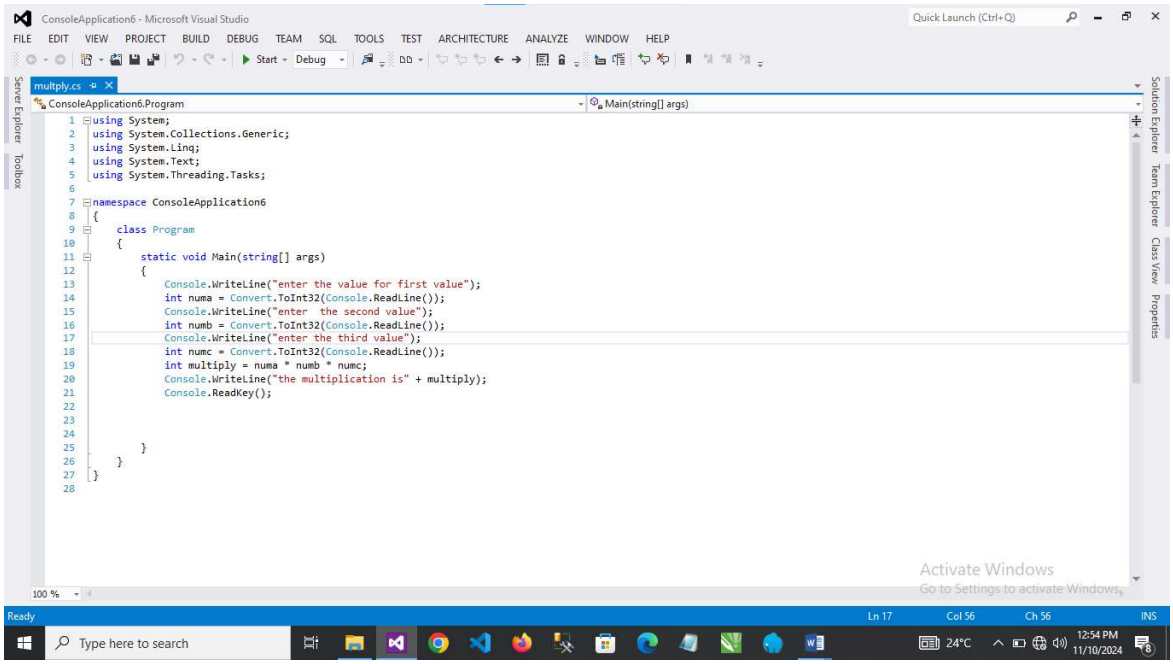


FIG1. 3.1.3 THE CODE OF THE MULTIPLICATION OF ANY THREE NUMBERS IN CONSOLE APPLICATION

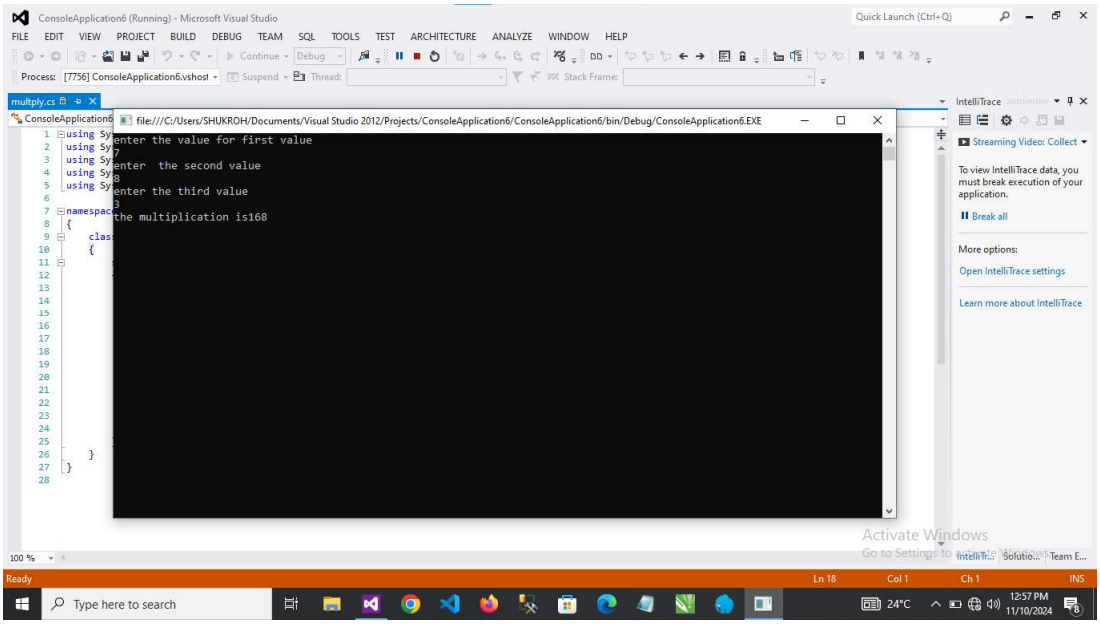


FIG2. 3.1.3 THE OUTPUT OF THE MULTIPLICATION OF ANY THREE NUMBERS USING (COMMAND PROMPT (CMD)) IN CONSOLE APPLICATIONS

3.1.2 WINDOWS FORM APPLICATIONS

A window form is a graphical user interface (GUI) desktop application developed using the .NET framework in C# application is one that runs on the desktop of a computer. Visual studio form along with c# can be used to create a windows form application. Controls can be added to the windows forms c# via toolbox in visual studio.

TOOLBOX USED IN WINDOW FORM:

PANEL:is a container control used to organize and group other controls within a Windows Forms application. It provides a way to structure the layout of controls, allowing you to manage and style groups of elements together, making your application's interface more organized and visually cohesive.

TEXTBOX: It displays the text and provides the ability to edit or delete it.

LABEL:is a user interface control commonly used in Windows Forms (and other GUI frameworks) to display text or information to the user. It is primarily used to provide

descriptions, instructions, or static information on a form. Labels are typically non-editable and are used for displaying text that provides context or labels for other controls like textboxes, buttons, or combo boxes.

BUTTON: Is a user interface control in Windows Forms (and other graphical user interface (GUI) frameworks) that allows users to trigger an action or event by clicking it. Buttons are typically used for actions like submitting forms, opening new windows, or initiating processes, and they are one of the most common interactive controls in desktop applications.

LIST BOX: Is a user interface control in Windows Forms (and other GUI frameworks) that displays a list of items for the user to select from. It is typically used when you want to present a set of choices and allow the user to select one or multiple items

DATA GRID VIEW: Is a powerful control in Windows Forms (and other GUI frameworks) used to display and manipulate tabular data in a grid format. It allows for the presentation of rows and columns of data, such as from a database, array, or list. It provides features like sorting, editing, and formatting, making it a popular choice for displaying data in desktop applications.

PICTURE BOX: Control is used in Windows Forms applications to display images. It can show images in different formats (e.g., JPG, PNG, BMP) and allows for easy manipulation of the displayed image.

RADIO BUTTON: Allows users to select one option from a group of choices. Radio buttons are typically used when a user must choose one option from multiple alternatives, such as selecting a gender, preference, or category.

DATE TIME PICKER: Control is used for selecting a date and/or time. It provides a calendar dropdown or a time picker, making it easier for users to input date and time values.

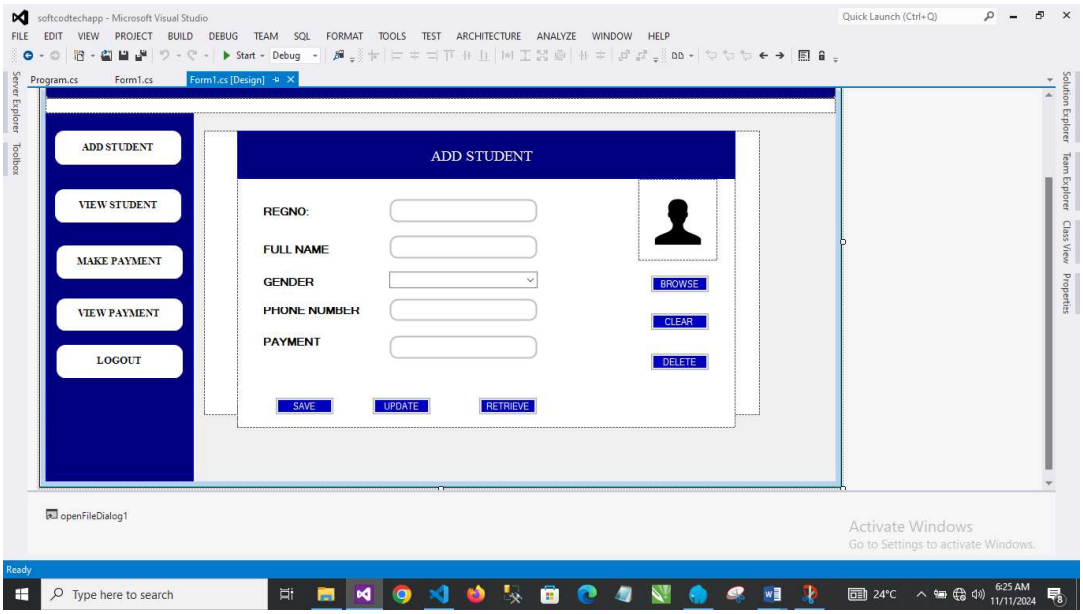


FIG 1. 3.1.3: IMAGE REPRESENTING THE DESIGN OF A WINDOW FORM APPLICATION (STUDENT DASHBOARD)

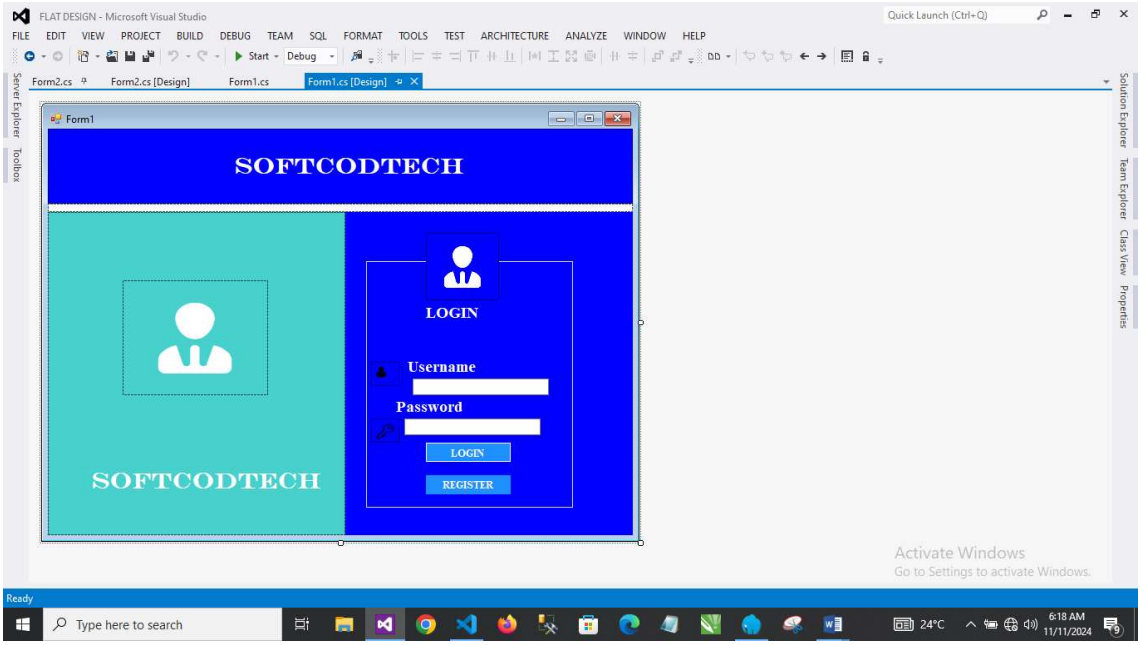


FIG 2. 3.1.3: IMAGE REPRESENTING THE DESIGN OF A WINDOW FORM APPLICATION (LOGIN SECTION).

CHAPTER FOUR

4.0 RECOMMENDATION AND CONCLUSION

4.1 CONCLUSION

In respective of the challenges encountered in this SIWES program**,** there were many things that I have experienced and learned during the four (4) months of my industrial training at SOFTCODTECH.NG the whole period was very educating, interesting and instructing. Through this training I was able to gain new insight and more comprehensive understanding about the real industry working condition and practice. It has provided me the opportunities to develop and improve my soft and functional skills. All of this valuable experience and knowledge that I have gained were not only acquired through direct involvement in task given but also through other aspect of the training such as work observation, interaction with colleagues, superior, and other people related to the field. From what I have undergone, I am very sure that industrial training program has achieved its entire primary objectives. This program has also prepared student to face the real working life. As a result of the program, now I am more confidence to build my future career.

4.2 RECOMMENDATION:

1. School should provide a place of attachment for student.

2. Student should be paid monthly in their place of attachment by the SIWES body.

3. Supervisor should always visit student monthly in their various places of attachment.

4. School should always rehearse with industries, firm and companies were the student is doing his/her industrial training to check and improve their facilities.

5.School should organize a seminal for student place of attachment (the industry) to enable effective training of student.

6.Despite the challenges encountered I still wish to recommend my place of attachment (SOFTCODTECH.NG) for schools and student who are yet to undergo their IT.

7. School should provide a place of attachment for student. Allowances should be paid to students during their programme just like NYSC and not after. This would help them a great deal to handle some financial problems during their training course. Supervisor should always visit student monthly in their various places of attachment.