



**SECP1513-02 STEM**


## **ASSIGNMENT 3 REPORT**

**Title: Skills in University and Industry as a Computer Science Student**

**Group Name: Bistro 2 Square Bytes (B4B)**

**Prepare for: Dr Aryati binti Bakri**



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## **1.0 INTRODUCTION**

### **Tell me more about the industry talk that you participated in.**

On 17<sup>th</sup> December 2024, students from Section 02 and Section 03 gathered together in Bilik Kuliah 1, N28 for an industry talk on how the knowledge and skills required as key factors in order to maintain their successful in this computer science field. Two speakers have been invited which focusing into two aspects; industry requirements and preparing for entrepreneurship. The first speaker began at 9.00 a.m. and the baton was passed to the second speaker which his session was conducted online via Webex. Throughout these sessions, students were actively participated and open their mind and eyes on how to improve skills and knowledge to produce high quality of fresh graduates.

## **2.0 DESCRIPTION SPEAKER EXPERIENCE**

Mohd Hakimi Iqmall bin Mohd Zolkifly works as an IT Officer at UTMDigital located at Universiti Teknologi Malaysia. His career began in 2017 where he works as an intern at ME-Tech Solution Sdn Bhd. He worked on a ship simulator for TLDM. After graduate, he joined Okakichi Sdn Bhd, from 2018 to 2019. During his time, he develops a game called Kingdom Ran. Despite experiencing system down after pushing a new code, his CEO and colleagues still provide support and encouragement.

Nik Mohd Habibullah bin Nik Mohd Nizam, CEO of Micro Semiconductor Sdn Bhd. His journey started when he created montages video for Digital Library during his student years. He then established his own company with NI Solution, later develop into Micro Semiconductor Sdn Bhd that specialize in hardware development. His company has two products which are GetMe Hired, which help fresh graduate with CV creation and Dialysis Manager, a system that help in operations for Haemodialysis Centers around Malaysia.

### **3.0 BASIC SKILLS FOR COMPUTER SCIENCE**

Previous studies mostly defined computer science would appear to be a meta philosophical science in the mathematical tradition that provides a new tool to define the algorithm, which is a sequence of instructions (Donald Kossmann, 2021). Computer science skills play a vital role in today's digital age, where technology is rapidly evolving (Tprestianni, 2023). As a person who are majoring in computer science, there are a few basic skills must be mastering, so that it can be applied when entering the workforce.

Firstly, technical skills are essential in computer science by learning programming languages like HTML, C, C++, and Python being key for career growth, especially in large companies. Tools such as Visual Studio, VS Code, and Sublime Text are also crucial for effective development while contribute in the large company (Ghoshal, 2021).

In addition to technical expertise, strong analytical and logical skills are necessary, particularly in algorithms and data structures, to design efficient systems and databases. This may lead you to be able to accurately display the collected data so that project analyst can make a future planning easily (The Indeed Editorial Team, 2024).

Finally, the ability to identify and resolve issues. There a few classics of example for security vulnerabilities like SQL injection, XSS, and CSRF that can be happen in the system that been develop. Therefore, skill in identify and resolve issues is needed to prevent future problems and ensure system integrity.

### **4.0 SKILLS REQUIRED FOR. INDUSTRY**

In today's tech industry, most people are required to master both technical and soft skills to remain competitive and marketable. Key technical skills include a strong understanding of current popular technologies such as artificial intelligence (AI), robotics, and the Internet of Things (IoT)(Klaus Schwab, 2016). Additionally, the ability to solve complex problems is also a very needed skill, as is adaptability, which allows individuals to stay up-to-date with all the changing technologies. Teamwork is also one of the many important skills every job recruiter seeks as teamwork remains the core to a successful tech company.

Other than that, it reveals that software development skills, such as having a good basic in programming languages like Python and Java, is very important to reduce the workload of mentors having to teach programming languages from the basics. Additionally, skills in cloud computing are also a must, especially with platforms such as AWS and Microsoft Azure, is highly sought after (Dan Brodnitz, 2024). Data science and AI skills are also in high demand, this skill is important so that the company will have access to analyse large datasets and automate processes. Besides that, soft skills like being disciplined and having good communication skills are both skills that most people want in their business. These skills are particularly important as remote environments grow, which means that more and more people will be working from their home.

## 5.0 REFLECTION

- How will you successful in the computer science in the next four year?

### 1. Aman Sufian Shah bin Shamsudddin (A24CS0046)

To succeed in computer science over the next four years, I will give my full effort. I plan to develop both technical skills and soft skills. I'll gain hands-on experience through internships and projects. Because of that, I believe that I can give a meaningful contribution to the industry.

### 2. Haritz Haykal bin Hisham (A24CS0250)

I will become a very disciplined student that follows a productive schedule and if I get good at programming, I will try to enter coding events to make my career have a brighter future.

### 3. Auni Sofia binti Abd Rahman (A24CS0051)

I'll give all my effort to do the best I can in improving my skills in computer science so that I can contribute and give positive impact towards society development.

### 4. Nur Umairah binti Zamri (A24CS0168)

Throughout these four years, I'll do my best on improving my skills and knowledge especially the technical skills, as I'm aware that I'm not good at it yet. I'm also trying staying updated to the changes in technologies trends for better preparation to be successful in the computer science field.

## 6.0 REFERENCE LIST

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