



SECP1513 TECHNOLOGY AND INFORMATION SYSTEM

ASSIGNMENT 3 REPORT

SECTION 03

TITLE : SKILLS NEEDED IN INDUSTRY AND COMPUTER SCIENCE COURSE



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1.0 DESCRIPTION OF THE SPEAKER EXPERIENCE

1.1 SPEAKER 1 : En. Mohd Hakimi Iqmall bin Mohd Zolkifly

EN. Mohd Hakimi Iqmall, a system analyst and project manager from UTM Digital has shared about “UTM Designing Success”. Graduated from UTMKL in Graphic and Multimedia courses, his career began in 2017 when he did an internship at ME - Tech Solution Sdn Bhd by doing an animation for TLDM. In 2018, he worked as a game programmer and developed a game called “Kingdom Ran” (2018). Once, he tried fixing a coding problem but ended up leading to the system being down. From that experience, En. Hakimi the lessons that he earned. Then, he joined UTM Research Company and has a project called RADIS4.0 and ICESys. In 2021, he contributed to projects such as Clinic Panel System and SSPA.

1.2 SPEAKER 2 : En. Nik Mohd Habibullah bin Nik Mohd Nizam

EN. Nik Mohd Habibullah, the CEO of Micro Semiconductor Sdn Bhd has shared insights on “Preparation for entrepreneurship in IT”. His journey in IT began when his friend encountered an problem with their website and he passed it down to EN. Habibullah. After he fixed the issue, the website became his. He has a website called “microsemi.com” and a project called GetMeHired (2019/2020), which help students to find jobs by providing CV templates.

2.0 INTRODUCTION

Studies suggest that there exists a gap between the skills achieved by Information Systems (IS)/ Information Technology (IT) graduates and those required by employers (Cappel, 2001/2002; Kim, Hsu, and Stern, 2006; Lee and Han, 2008; Lee et al., 2002; Trauth, Farwell, and Lee, 1993; Doke and Williams, 1999; Tang, Lee and Koh, 2000/2001). Fang, Lee and Koh (2005) found that personal and interpersonal skills were more important in new hires than core IS/IT skills and organizational knowledge. The following section summarizes the skills required for computer science and industry, as discussed by two speakers.

2.1 BASIC SKILLS REQUIRED FOR COMPUTER SCIENCE

According to En. Mohd Hakimi Iqmall, the basic skills required in the IT field can be divided into two types of skills, which are Technical Skills and Management Skills.

First of foremost, technical skills are the fundamentals. Firstly, having a solid understanding of programming languages such as C++ , C , C# , JAVA and Python, is the main skill a Computer Science student should acquire and is necessary in program development. Then, a strong understanding about Database Structure is fundamental especially for Data Engineering students, which covers Primary Key , Relationships, Tables, Indexes and Normalisation. Debugging skills must be sharpened to strengthen the ability to identify and resolve issues. Lastly, having a strong grasp of algorithms and data structures offers numerous benefits, especially in the realm of computer science, programming, and problem-solving.

On the other hand, several management skills are essential in the CS field. Problem-solving skills are crucial to access business needs and identify best system solutions. Then, communication skills are critical in the requirements gathering, planning, and implementation phases, ensuring effective communication with each party in charge. Lastly, leadership and team collaboration abilities are important throughout all project phases to coordinate and align team efforts.

2.2 SKILLS REQUIRED BY INDUSTRY

The employment market for ICT graduates in Malaysia, as in many sectors, is highly competitive. While universities are producing quite large numbers of ICT graduates per year, many do not meet the skill requirements desired by IT employers. En. Nik Mohd Habibullah has emphasized on the essential skills and strategies for university students in preparing for entrepreneurship in IT.

En. Nik Mohd Habibullah shared about the process of job and business application using the IRPA method (Identify, Research, Prepare and Apply), which also known as Soul-Searching. This method gave enlightenment about how to approach job searches. He also introduced his application, GetMeHired, which ease students' preparation in job applications by providing CV templates. To succeed in the IT industry, students should be familiar with the important terms for IT roles and the tools and software necessary for different categories.

3.0 REFLECTION

HOW YOU WILL BE SUCCESSFUL IN THE COMPUTER SCIENCE IN NEXT 4 YEARS?

1) CHIN WEI YAO

I gained a lot from this speech, which made us no longer anxious about the future in the next four years of college. I deeply realised that, we have to refine our choice and dig deep into our interest to reduce the risks of applying for the wrong job. Besides that, we can also start sending resumes to companies before graduation to increase our chances of being accepted and getting ahead of other competitors. The most important part is also to be fully prepared for the future of work. It is because we must showcase our ability through the project when entering the work.

2) NUR ALIA ATHIRAH BINTI SUZUDDIN

Based on the talk, I gained knowledge and was able to differentiate between skills needed in computer science and industry. This talk reminds me to build more skills such as problem solving, leadership and management skills so that I'll be a more certified and a quality student needed in the IT industry. If I want to be successful in the CS field, I need to improve more skills.

3) SITI NUR IMAN NADHIRAH BINTI MOHD FAIZAL

Listening to the talk makes me focus more on enhancing my soft skills such as communication skills and teamwork abilities. I also want to build strong fundamentals such as programming and algorithms. In that way, I will be able to be successful in the IT field in 4 years.

4) KOH ZI QIAN

From the industrial talk, I have recognized that both technical and management skills are crucial for future success in the industry. The speakers' personal experience also inspired me to aim for more practical projects during my studies. I now understand that in the next four years, I must focus on enhancing skills such as problem-solving, leadership, analytical and logical reasoning to be competitive. I have also recognized the importance of beginning internship programs early and building a strong portfolio.

4.0 REFERENCE

- 1) (2024, December 17). *PREPARING FOR ENTREPRENEURSHIP IN IT* (Nik Mohd Habibullah Bin Nik Mohd Nizam, Ed.)
- 2) (2024, December 17). *UNIVERSITI TEKNOLOGI MALAYSIA DESIGNING SUCCESS* (Mohd Hakimi Iqmall Bin Mohd Zolkifly, Ed.)
- 3)