



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING

UTM Johor Bahru

ASSIGNMENT 3

ACADEMIC WRITING ON INDUSTRIES TALK 2

SKILLS IN UNIVERSITY AND INDUSTRY

GROUP NAME:

TECHNoLimits

GROUP MEMBERS:

NO.	MEMBER	NAME	STUDENT ID
1		FION TEE XIN YUE	A24CS5057
2		GAVENESH A/L BATUMALAI	A24CS0089
3		JOSHUA LING SHANG YANG	A24CS0076
4		LIM ZOEY	A24CS5065

SUBJECT NAME (SUBJECT CODE/SECTION):

Technology and Information System (SECP1513/03)

SESSION:

2024/2025 Semester 1

LECTURER NAME:

MUHAMMAD IQBAL TARIQ BIN IDRIS

TITLES:

NO.	TITLES	PAGE
1	SPEAKERS EXPERIENCE	2
2	SKILLS IN COMPUTER SCIENCE	2
3	SKILLS IN INDUSTRY	2
4	REFLECTIONS	3
4	REFERENCES	3

SPEAKERS EXPERIENCE

Working experiences of the speaker started from the year 2017. In the year 2017, he was working at ME-Tech Solution Sdn Bhd, Cyberjaya. He was responsible for developing six simulators for ELDM, 3D modeling, and animation. Then he was working at Okakichi Sdn Bhd, Johor Bahru in 2018. He started to touch the game developing area when working at that company for one year. Since 2019, he started to work at Universiti Teknologi Malaysia(UTM). From 2019 to 2021, he worked in UTM Researching Computing, then he continued his job at UTMDigital until now. One of the projects that he was included in is Kingdom Ran(2018), a game about tower defense and development. His role in developing this game was game programmer, responsible for game animator. During he worked in UTM Researching Computing, he was a System Programmer, and the projects he touched were RADIS 4.0 and ICESys. But now, he is working as Project Manager/System Analyst at UTMDigital. The projects done by him for UTMDigital are the Welfare Service System, Clinic Panel System, Kenaikan Gaji Tahunan(KGT), Payroll 2.0, SSPA System and Integrity System.

SKILLS IN COMPUTER SCIENCE

In today's rapidly evolving world, The Information and Communication Technology (ICT) are crucial for individuals aspiring to excel in their careers and contribute effectively to organizational success. This combination of skills enables professionals to address challenges, innovate, and lead teams toward achieving strategic goals. Hence, Computer science forms the backbone of modern civilization, driving innovation, transforming industries, and providing solutions to global problems. Its influence continues to increase, making it a fundamental discipline in creating a more connected, efficient, and sustainable future. At first, He had a discussion on the significance of mastering a variety of programming languages, including but not limited to C++, Java, and Python. The focus is on cultivating a logical understanding and problem-solving ability rather than merely rote language proficiency as it's one of the needed and demanded elements in ICT jobs. Moreover, He also highlights the critical nature of tools like Git, emphasizing their role in effective collaboration among developers, ensuring project integrity and version tracking. He also emphasizes commonly used tools in the industry like Visual Studio, followed by learning databases (SQL) essentials. Furthermore, skills needed to identify and fix bugs in code. Besides, fundamental concepts such as primary keys, foreign keys, normalization, and its significance in data management, essential for securing systems, avoiding vulnerabilities such as SQL injection, analytical and logical skills that are necessary for problem solving in development processes. Lastly, knowledge of frameworks like .NET and Laravel is crucial for efficient systems development.

SKILLS IN INDUSTRY

The IT industry is one of the fastest-growing fields in the world, changing how people work and live every day. To succeed in this field requires a diverse set of skills, blending technical expertise with soft skills to adapt to rapid advancements and evolving demands. This report looks at the key skills needed in the industry for building a successful career. To excel in the competitive job market, a structured approach like the IRPA method can significantly enhance career prospects. Beginning by identifying your strengths, weaknesses, and areas of interest, ensuring alignment between your background, aspirations, and the industry you're targeting. Research is equally critical, assessing the sustainability of the role, career growth opportunities, company culture, and financial stability to secure a fulfilling career. Preparation is key, prepare a professional CV or resume, highlighting your education, certifications, achievements, and skills, including hard skills like programming or design, supported by a well-documented portfolio showcasing past projects. Bonus items like recommendation letters can further strengthen your application. Finally, utilize job portals such as LinkedIn, Jobstreet, or Indeed to apply strategically and maximize your chances of success. By combining these steps, you can align your skills with industry needs and set the foundation for long-term professional growth. In this industry, a mix of technical and management skills is important. Technical skills include knowing programming languages like C++ and Java as well as using version control tools like GitHub. Mastery of development tools such as VSCode, alongside a strong understanding of database structure, are essential. You should also know how to fix issues, be aware of security risks and have strong problem-solving and analytical skills. On the management side, problem-solving helps design solutions, while communication skills ensure smooth collaboration. Understanding different SDLC methodologies, like Agile or Waterfall, helps manage projects effectively. Testing, quality assurance, risk management, and documentation are key to ensuring systems work well. Leadership and teamwork are important for coordinating and completing projects successfully. To thrive in the IT industry, it's important to step out of your comfort zone and challenge yourself.

REFELCTION

GAVENESH A/L BATUMALAI	Having and maintaining both management and technical skills, using industry knowledge, and choosing the path of commitment to learning are the ways I plan to be good at computer science in the next four years. So I went with the approach of having a proper basis in programming languages such as Python, Java, and C++, more specifically the logical aspect of it. Furthermore, I also prepare to develop my cybersecurity and debugging skills. This will enable me to construct the secured and efficient systems, and as well as I will learn the implementation of those fundamental tools to include Git for version control, Visual Studio for development, and SQL for database management. How I manage projects with different people may involve refining my project management methods. It is not only about testing the SDLC methodology, but I also must do work well within the team environment. Through the provision of the necessary information, the development can be safely carried out as I am creating a stable environment for the computer code. I will communicate the information effectively and the team work they will do. I am hoping to launch my career as a programmer so I will go to work practice and enlarge my professional network so that I can get internships and job opportunities.
JOSHUA LING SHANG YANG	The talk given by Encik Nik Mohd Habibullah was very useful for the audiences, the technical skills such as programming language are the most important skills for all of the computing students, as the more languages you master, the more ability you can programme and develop various projects for the company. Besides that, debugging system skills are also important for us to identify and fix all the bugs in the programming. Next will be management skills. Problem solving and debugging system skills are closely related. When there are bugs, we need to analyze those bugs, and plan the ideas to solve the problems. Then, technical skills are useful for us as essential in the design, development, and testing phases to collaborate with other developers. As we will need to communicate with clients to solve their problems in future, communication skills are important so we can get clear information from clients about their problems. Others, communication skills enable us to solve problems more efficiently with other developers after gathering the problems from clients.
FION TEE XIN YUE	Firstly, based on the talk by Encik Nik Mohd Habibullah, I knew about the important tools and software for system development. From that, I will keep improving my knowledge about all the important tools. Furthermore, I will also make sure myself stay updated and avoid being left behind in the ever-evolving landscape of technology and industry. Secondly, based on the talk by Encik Mohd Hakimi Iqmall, I learnt about all the technical and management skills. I will improve my thinking skills and attention to detail. Additionally, communication skills and leadership and team collaboration for management skills are the skills that I need to enhance. As in the future, we need to conduct teamwork with colleagues and communicate with clients. In summary, I will always be prepared for challenges as Encik Mohd Hakimi Iqmall said, 'Life begins at the end of your comfort zone.'
LIM ZOEY	The industry talk highlighted different skills needed to prepare for the tech industry. In the next four years, I plan to improve my programming and database skills while staying updated on new technologies or tools like AI, cybersecurity and cloud computing. Also, I will plan to participate in internships and projects to gain practical experience and network with professionals. Moreover, I will enhance my problem solving, teamwork and communication skills to work effectively with others. By earning certifications, I'll position myself for success in the fast changing tech industry while working toward my goal of becoming an AI engineer. As the saying goes, "Life begins at the end of your comfort zone." I will embrace challenges to grow and prepare myself for the dynamic demands of the tech world.

REFERENCES

- Encik Nik Mohd Habibullah Bin Nik Mohd Nizam, Ketua Pegawai Eksekutif Micro Semiconductor Sdn. Bhd.
- Encik Mohd Hakimi Iqmall, Pegawai Teknologi Maklumat UTMDIGITAL