TECHNOLOGY AND INFORMATION SYSTEM
SECP1513 SECTION 08
SESSION 2024/2025 SEMESTER 1

ASSIGNMENT 3
ACADEMIC WRITING

SKILLS IN UNIVERSITY AND IT INDUSTRY

LECTURER:
DR. SURIATI BINTI SADIMON

GROUP 6

NO	MEMBERS	MATRIC NO.
1	Rodzer	A24CS0180
2	Khairil Hakim	A24CS0137
3	Adam Haiqal	A24CS0120
4	Nazhir Zaydan Yusuf	A23CS4050
5	Ahmad Muzhaffar	A23CS4035

1. **Speaker's Experience**

   The speaker, Nik Mohd Habibullah bin Nik Mohd Nizam, is an alumnus of Universiti Teknologi Malaysia (UTM), graduating in 2005. In this talk, he shared his journey of leveraging academic projects and professional roles to excel in the IT industry.

   In his third year as a student at UTM, he collaborated with the university's graphics team, where he participated in projects, such as developing a montage for the launch of UTM's digital library during a convocation event. This also led into his Final Year Project, where he created a cataloging system for UTM theses. The project utilized machine learning to identify keywords and classify theses into fields such as science, chemistry, and others. Beyond academics, Nik Mohd Habibullah was an active participant in college-level associations. These experiences helped him lay a strong foundation for his career as an entrepreneur and his professional growth.

   Throughout his career, Nik Mohd Habibullah has established a diverse range of ventures. These include NI Solution, an IT-focused business; Micro Semiconductor Sdn Bhd, specializing in hardware technology; GetMe Hired, a career coaching and development service, offering CV writing, etc; and Dialysis Manager, a healthcare platform dedicated to dialysis management.

   Before starting his entrepreneurial journey, Nik Mohd Habibullah gained substantial experience in various roles. He served as a Special Officer at the Ministry of Higher Education (Kementerian Pengajian Tinggi, KPT), a Research Officer at UTM, involved in the Management Information Systems (MIS) field, and contributed to numerous government projects.

   Nik Mohd Habibullah uses his ability to establish businesses stems from observations of surrounding challenges and leveraging his experiences to create innovative solutions.

2. **Basic Skills Required for Computer Science**

   Success in computer science requires a solid foundation in both technical and soft skills. Key technical skills include programming in Python, Java, or C++. Understanding of data structures, algorithms, and debugging techniques enhances problem-solving efficiency, while expertise in system design, operating systems, and database management creates scalable IT solutions (Aasheim, Li, & Williams, 2009). Skills in web development and mobile app frameworks like Flutter are also highly relevant in today's market (Habibullah, n.d.).

   Soft skills such as communication, problem-solving, and time management are equally important. Adaptability and a commitment to continuous learning are also essential for staying up to date with the rapid technological advancements. (Suhaimi, Hasan, Hussin, & Shah, 2012).

3. **Skills Required by Industry**

   The IT industry values a mix of technical and interpersonal skills. Important technical skills include cybersecurity, cloud computing, and DevOps tools like Docker and Jenkins, (Habibullah, n.d.). Project management is also needed, with familiarity in Agile and Scrum frameworks and tools like Jira ensuring efficient project execution. Additionally, expertise in data analytics tools, such as Python and R is in high demand for extracting insights and driving data-driven decisions.

In addition to technical abilities, soft skills are important in the IT sector. Collaboration and teamwork are critical for working effectively in teams, while leadership and initiative help drive projects and inspire colleagues (Aasheim, Li, & Williams, 2009). Additionally, employers search for people with good critical thinking abilities who can assess problems and provide creative solutions. (Suhaimi, Hasan, Hussin, & Shah, 2012). Furthermore, recruiters tend to prioritize candidates with hands-on experience gained through internships, etc. Candidates that stand out also enhance employability in this highly competitive job market.

4. Reflection

"How will you be successful in computer science in the next four years?"

- **Rodzer**

"Personally, I will be successful in computer science over the next four years by staying curious, constantly learning new skills, practicing coding regularly, and seeking opportunities to apply my knowledge through projects and internships."

- **Khairil Hakim**

"To succeed in computer science, I'll build a strong foundation in programming and system design, stay updated on emerging technologies, and gain experience through projects, hackathons, and workshops. I'll also develop teamwork and problem-solving skills to excel in this dynamic field."

- **Adam Haiqal**

"For me, maybe I can actively learn new programming skills, doing more projects and searching for internships to gain practical experience.

- **Nazhir Zaydan Yusuf**

"To succeed over the next four years, I will focus on the basic fundamentals. Which will be a good foundation to build on with more specific programming skills and allow me to easily learn new emerging technologies."

- **Ahmad Muzhaffar**

"I learned the importance of solving real-world problems. My goal is to focus on practical projects and internships to gain experience and skills for my future career."

5. References

1. Nik Mohd Habibullah Bin Nik Mohd Nizam. (n.d.). *Preparing for Entrepreneurship in IT: Essential Skills and Strategies for University Students.*
2. Suhaimi, M. A., Hasan, M. R., Hussin, H., & Shah, A. (2012). *Information and Communication Technology Workforce Employability in Malaysia. Campus-Wide Information Systems, 29(2), 80-87.*
3. Aasheim, C., Li, L., & Williams, S. (2009). *Knowledge and Skill Requirements for Entry-Level Information Technology Workers: A Comparison of Industry and Academia. Journal of Information Systems Education, 20(3), 349-356.*