UNIVERSITI TEKNOLOGI MALAYSIA

SECP1513 TECHNOLOGY AND INFORMATION SYSTEM

ASSIGNMENT 3 : ACADEMIC WRITING

TITLE: SKILLS IN UNIVERSITY AND INDUSTRY

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1. **Introduction**

   We are excited to welcome a former student of this Data Engineering course back to campus to speak with us today. He had shared firsthand experiences about what it is really like to work in the industry, including common challenges like handling huge amounts of data, keeping pipelines running smoothly, and meeting the fast-paced demands of real projects. This talk is a great chance for all of us to connect what we are learning in class with the skills and situations we will face in our future careers.

2. **Speaker's Experience and Key Insights**

   The industrial talk was delivered by Ts. Abdul Alim bin Abdul Muttalib, who currently serves as the Head of Technology and Innovation at Serunai Commerce Sdn. Bhd. In this role, he is responsible for overseeing technological development, system innovation, and managing technology-driven projects within the organisation. With extensive experience in leading system development initiatives, the speaker shared industry-based insights on project management practices, technology planning, and aligning system development processes with organizational goals.

3. **Basic Skills Required By Computer Science Students**

   A solid combination of hard and soft skills is necessary for success in computer science. Recent industry standards state that knowledge of data structures, cloud computing, and programming languages like Python and C++ is necessary for contemporary software development (Sigma University, 2025). But for students to succeed, employability skills are just as important as technical proficiency. According to a thorough analysis, networking and innovative problem-solving are essential for long-term career advancement and bridging the gap between academia and business (ResearchGate, 2024). The secret to success is ultimately striking a balance between these interpersonal and technical skills.

4. **Skills Required By The Industry**

   In today's software industry, you need different skills depending on whether a project uses Waterfall or Agile. For Waterfall, which is a strict, step-by-step plan, you must be good at writing very detailed requirements at the start, creating complete designs, and thorough testing at the end, as changes are hard to make later. This is common for projects with fixed rules, like in banking or healthcare. For Agile, which works in short, repeating cycles, you need to be flexible. Key skills include breaking work into small pieces, collaborating daily with your team and the client, adapting to feedback quickly, and releasing updates often. Overall, companies want people who can work well within the entire process, whether it's the strict order of Waterfall or the adaptable flow of Agile.

5. **Conclusion**

   To sum up, the industrial talk provided our group with a deeper understanding of the real-world expectations and responsibilities within the technology industry. Through the speaker's experiences, we gained valuable insight into how system development requires not only technical knowledge but also soft skills such as teamwork, adaptability and effective decision making.

Reflection 1 **(Howard Lee Hao Zhe)**

The talk helped me understand how important strong fundamentals are in computer science. I learned that relying too much on AI tools can create long-term problems if I do not understand the logic behind the code. Over the next four years, I plan to focus on improving my basics and practising consistent coding. I also aim to participate in team projects to develop better collaboration skills.

Reflection 2 **(Akmal Rafique bin Ahmad Raphaie)**

Based on the insights gained from the industrial talk, I am aware that success in computer science requires continuous improvement in both technical and soft skills. Over the next four years, I intend to enhance my programming skills, participate in more group projects, and further refine my communication abilities to meet industry expectations. Ultimately, I appreciate the speaker's advice that lifelong learning is essential for remaining competitive in an industry where technology continues to evolve.

Reflection 3 **(Muhammad Farid Farhan bin Japri)**

The talk by Ts. Hj. Abdul Alim Bin Abdul Muttalib from Serunai Commerce showed me that computer science is about solving real-world problems, not just coding. To succeed, I plan to focus on continuous learning. My plan includes mastering fundamentals like data structures to easily adapt to new languages and building a GitHub portfolio. I will also upskill in AI and cloud computing to stay relevant. Finally, I will join team competitions to improve my soft skills, ensuring I become a well-rounded professional.

Reflection 4 **(Anaqi Harraz bin Mohd Azad)**

The talk provided me with a lot of information and it cleared my view that it is not all about academics. Interpersonal skills are highly required when it comes to working as a team in an industry. In the future, I highly believe that communication skills and the ability to explain things independently are important, which is why I will emphasize developing these skills throughout my degree journey.

Reflection 5 **(Muhammad Danish Irfan bin Md Zamri)**

This talk offered a truly eye-opening perspective on what it means to be a data engineer in practice. Beyond the technical workflows we study, I now see that the real challenge and the real value lie in translating data insights into clear decisions that others can act on. This requires not just coding skill, but the ability to listen, ask the right questions, and build trust across teams. Moving forward, I plan to actively seek opportunities that strengthen these human-centered skills, knowing they will be just as important as any algorithm or tool in my career.

Reference

ResearchGate. (2024). *Prospects of computer science graduate*: Comprehensive review of career opportunities and challenges.

Sigma University. (2025). *Must-have IT skills for computer science graduates in 2025*.