SECP1513 - TECHNOLOGY & INFORMATION SYSTEM

SECTION 03

LECTURER: TS. DR. MUHAMMAD IQBAL TARIQ BIN IDRIS

INDUSTRY TALK 2

TS HJ. ABDUL ALIM BIN ABDUL MUTTALIB -
HEAD OF TECHNOLOGY AND INNOVATION
OF SERUNAI COMMERCE SDN BHD

TITLE : SKILLS IN UNIVERSITY AND INDUSTRY

NAME	MATRIC ID
NG YAW KUAN	A25CS0292
TERENCE LIM JIAN YUAN	A25CS0364
TANESH A/L RAJAKUMARAN	A25CS0359
NOR FATIHAH BINTI OTHMAN	A25CS0296
PANG ZHI XUAN	A22SC0466

Description

Ts. Hj. Abdul Alim bin Abdul Muttalib, an alumnus of UTM with over 10 years of industry experience, is currently the Head of Technology and Innovation at Serunai Commerce Sdn Bhd, focusing on digital Halal verification systems. In this session, he shared insights on bridging the gap between academic knowledge and industry practices, emphasizing the skills required by students for future careers.

Skills Required by Industry

The industrial talk emphasized the importance of developing skills that prepare students for the software industry. Among the various skills discussed, three were highlighted as particularly critical. First, requirements analysis is essential for ensuring that software meets client and stakeholder expectations. Professionals must accurately gather, interpret, and document requirements to avoid misunderstandings that could lead to project failure. Effective communication with stakeholders and proper documentation tools, such as Software Requirement Specifications, are key components of this skill (Requiment, 2025). Second, communication and teamwork are important because software development is rarely an individual task. Developers, testers, and project managers must collaborate closely to achieve project goals efficiently. Strong interpersonal skills and clear communication improve team performance and contribute to the overall success of the project (GeeksforGeeks, 2025). Moreover, adaptability and continuous learning are necessary in the fast-evolving technology industry. Professionals must stay updated with new programming languages, development tools, and SDLC methodologies such as Agile. The ability to quickly learn and adjust to changing project requirements ensures remain competitive and effective in real-world software projects (GeeksforGeeks, 2025).

Basic Skills Required for Computer Science

Basic skills required by computer science students are a combination of technical knowledge and organized project management. Students need to possess the following core technical skills like knowledge of programming languages such as Python, Java and C++ as well as familiarity with data structure, algorithms, and operating systems. These skills allow students to create computer-based solutions that meet defined requirements (AlGhamdi, 2023). In addition to coding, academic studies emphasize the value of Software Development Life Cycle (SDLC) that is a structured approach to software development that consists of requirements analysis, design of the system, implementation, testing, and maintenance, which provides a basis for developing quality and reliable software (Yas et al., 2023). Project management methodologies are used to provide an ordered approach to complete all phases of the SDLC in a timely manner and within budget. Overall, a skilled computer science student must have theoretical knowledge and practical experience, along with a professional attitude of using both in an ethical and responsible manner in real world situations (Uppsäll et al., 2024).

Reflection

FATIHAH	From Industry Talk 2, I learned that building a system requires understanding the full SDLC and good project management skills. The speaker emphasized that continuous learning and requirement-gathering skills are important to avoid struggling in real projects. I believe we must master what we learn and apply it in real situations, especially during internships, and keep learning new skills to be ready for the future.

TANESH	The industrial talk helped me realize that succeeding in computer science requires more than academic knowledge. It also demands teamwork, communication, and adaptability. Over the next four years, I plan to participate in projects, coding competitions, and internships to gain practical experience and strengthen these skills. By combining technical knowledge with industry relevant skills, I aim to graduate as a confident and capable professional, ready to contribute effectively to real-world software projects.
ZHI XUAN	To be successful in computer science over the next four years, I will concentrate on more than learning how to code. I will relate the university modules to the real-world application during my internship by using the knowledge from the university to see how a project is planned, developed, and delivered. I will also use AI-related tools to enable me to learn the basic system architecture and technical concepts. Moreover, I will continue to strengthen my core knowledge, and explore new technologies outside the syllabus to remain competitively engaged in the industry.
YAW KUAN	I plan to apply the SDLC by approaching each assignment and project with clear planning, starting from requirement analysis to fully understand the problem before proceeding to system design and development. This approach will help prevent rushed implementation, reduce errors caused by poor planning, and result in higher-quality projects. It also allows me to manage time more effectively and develop solutions in a more structured manner.
TERENCE	The industry talk had opened my eyes about knowing that Project Management and System Development is vital for a project. For the next four years in computer science, I will utilise SDLC as a structured framework to guide my academic learning, shifting my focus from just writing code to learning how to actually plan and design a system before I had even started. Furthermore, as the industrial proverb: "In IT, you will die when you stop learning", I will be committed to continuous learning, adopting to the industrial reality to be more future ready as a graduate in computer science.

References

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