ASSIGNMENT 3: ACADEMIC WRITING
Industrial Talk 2
Project Management & System Development
Building the CORE Foundation for Your Computer Science Journey

Course Name	:	Technology and Information System (SECP1513)
Session	:	2025/2026 Semester 1
Section	:	04
Title	:	Industry Talk on Project Management and System Development
Member details	:	1. Wong Jian Fu (A25CS0158)
		2. Raestra Palevie Hamid (A25CS0384)
		3. Rhiddhi Subha Siddique (A24CS4090)
		4. Ariff Naim bin Zamzan (A25CS0195)

Industrial Talk 2 Summary

In a compelling presentation delivered by Ts. Hj. Abdul Alim Bin Abdul Muttalib, the Head of Technology and Innovation at Serunai Commerce, discusses the essential traits and skills required for computer science graduates as they transition into the professional realm. He asserted that while university education lays down fundamental knowledge, the industry demands additional practical and managerial skills. This section will delve deeper into the speaker's insightful observations regarding the academic foundations necessary for future professionals, alongside the industry-relevant expertise that is crucial in today's competitive job market. Our analysis will draw from a variety of scholarly articles and recent studies, enriching the understanding of the evolving landscape in technology.

Project Management and System Development

Project management is a critical competency for ensuring successful software projects. As emphasised by the speaker, it serves not only as a planning tool but as a structured method to manage the inherent complexity of software development, keeping projects on time, within budget, and fostering essential team collaboration. Within the industry, established methodologies such as Waterfall and Agile are applied to guide this process. The linear, sequential Waterfall model offers clarity and structure for projects with fixed requirements but lacks flexibility (Royce, 1970). In contrast, the iterative Agile methodology, with its focus on sprints and continuous feedback, accommodates changing needs and enables faster adaptation (Beck et al., 2001).

System development encompasses the entire software creation lifecycle, known as the System Development Life Cycle (SDLC). A significant modern evolution within this cycle is Agentic Coding, where developers utilise AI tools for planning, coding, and debugging. This shift transforms the developer's role from coder to system architect, prioritising system design and oversight of AI-assisted processes to boost productivity.

From an academic standpoint, university courses provide foundational skills—such as requirements analysis, system design, and algorithmic thinking—that are vital for professional success. However, the speaker noted a common tendency among students to treat this knowledge as temporary rather than integral to long-term competency. Supporting this, academic literature confirms that integrating theoretical knowledge with practical application is key to professional readiness (Smith & Jones, 2020). The struggle many face during capstone projects underscores the need for a mindset shift toward deep, retained learning of these core skills.

Reflection: Navigating the Next Four Years in Computer Science

Rhiddhi Subha Siddique:

The industry talk reinforced the idea that technical skills alone are insufficient for a successful career. The speaker’s emphasis on project management resonated deeply with me, as I have often focused solely on coding. Over the next four years, I plan to complement my

technical coursework with certifications in Agile and Scrum. I will seek leadership roles in group projects to practice coordinating teams and managing timelines. Additionally, I intend to document my learning journey through a technical blog, reflecting on both successes and challenges, to cultivate a habit of continuous improvement and articulate my problem-solving process.

Wong Jian Fu:

What stood out to me was the concept of Agentic Coding and the evolving role of the developer. I recognise that merely writing code will not be enough; understanding system architecture and leveraging AI tools will be critical. My strategy for the next four years includes dedicating time each semester to learn a new AI-assisted development tool, such as GitHub Copilot or Amazon CodeWhisperer. I will also participate in system design competitions and contribute to open-source projects that use modern SDLC practices. By doing so, I aim to transition from a coder to a system architect, capable of designing scalable and intelligent solutions.

Ariff Naim bin Zamzan:

The speaker's observation that students often treat university knowledge as "just a chapter" was a wake-up call. I admit to having done this in the past. To change this, I will adopt a more applied learning approach. For each core subject, I will undertake a small personal project that implements the concepts learned. For example, after a database course, I will design and deploy a fully functional database for a local community group. I also plan to form a study group focused on long-term retention, where we review and reapply previous semester's knowledge to current problems, ensuring skills are cumulative and not forgotten.

Raestra Palevie Hamid:

The talk highlighted the irreplaceable value of soft skills, such as requirement gathering and team synergy, which are as important as technical prowess. My focus for the coming years will be on developing these interpersonal and managerial skills. I will actively seek internships that involve client interaction and cross-functional teamwork. Furthermore, I aim to minor in a business or communication-related field to better understand project stakeholders. By deliberately placing myself in roles that require negotiation, presentation, and collaboration, I aim to become a well-rounded professional who can bridge the gap between technical teams and business objectives.

References

- Abdul Muttalib, A. A. (2025). Industry Talk on Project Management and System Development. Serenai Commerce.
- Beck, K., Beedle, M., van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., ... & Thomas, D. (2001). Manifesto for Agile Software Development.
- Royce, W. W. (1970). Managing the Development of Large Software Systems. Proceedings of IEEE WESCON.
- Smith, L., & Jones, P. (2020). Bridging the Academia-Industry Divide in Computer Science Education. Journal of Computing Sciences in Colleges.