



## TECHNOLOGY AND INFORMATION SYSTEM (SECP1513)

SEMESTER 1 SESSION 2025/2026

### ASSIGNMENT 3

#### INDUSTRIAL TALK 2 (ACADEMIC WRITING)



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## **1.0 INTRODUCTION**

Industry Talk 2 was conducted to provide students with early exposure to how project management and system development are applied in the workplace and why they are very important to the IT industry and future careers.

## **2.0 DESCRIPTION OF THE SPEAKER'S EXPERIENCE**

The speaker is a former UTM student. Currently, he is working as the head of technology and innovation at Serunai Commerce Sdn. Bhd. A company producing halal solutions like Samyang. He graduated from his studies in 2015, finished it in July and starts his work 2 months later, September. The speaker shares that he had been struggling in his first 3 years of working, realizing the importance of remembering and applying what he had learned in university to his working life.

## **3.0 PROJECT MANAGEMENT**

Project management is the application of knowledge, skills, tools, and techniques to achieve the project's requirements. Project managers need to aim for fulfilling the scope, schedule, cost, resource, risk, and quality criteria of the projects, as well as guide the entire process to fulfill the needs and expectations of those involved in or impacted by project activities (Schwalbe, 2017). The Waterfall methodology is a traditional approach, which is a linear and sequential approach that requires finishing one phase before starting the next phase. The Waterfall methodology is particularly beneficial in environments with clear and consistent requirements. However, the Waterfall methodology struggles to handle changes throughout development, which limits delivery flexibility. Agile is a modern, iterative approach where work is broken into small segments called sprints. It requires constant feedback from the customer throughout the project to ensure that the system meets their actual needs.

## **4.0 SYSTEM DEVELOPMENT**

System Development Life Cycle (SDLC), is a conceptual framework or process that considers the structure of the stages involved in the development of an application from its initial feasibility study through to its deployment in the field and maintenance (Nayan B. Ruparelia, 2010). SDLC consists of seven essential phases that is planning, engineering, documentation, design, development, testing, deployment and maintenance. The speaker used an analogy of cooking to explain the flow of system development, highlighting the importance of following the structured

steps to achieve a successful outcome. The planning phase establishes goals, purpose, and desired results. Engineering focuses on requirements for gathering and analysis. Documentation defines and records requirements and specifications. Design involves creating prototype and visual representations. Development focuses on writing component codes. Testing ensures all components, security activities, and systems meet the quality standard. Deployment launches the software product on the intended platform. Maintenance provides ongoing support and maintenance.

## **5.0 APPLICATIONS IN COMPUTER NETWORK AND SECURITY**

According to Harrison and Lock (2017, as cited in Lawal, 2025), integrating cybersecurity into project management is essential, as it forms a fundamental part of the project's overall structure and operations. This shows that project management is implemented in a computer network where they must consider risk management and mitigation, coordination across teams, and system reliability. Moreover, system development helps in creating a more structured network architecture, including designing network topology, selecting routers, configuring switches, implementing firewalls, and integrating other hardware components to ensure optimal network performance and security.

## **6.0 REFLECTION**

Nurul Iman: From industry talk 2, I realized that learning without understanding and not knowing the application in real life problems is nothing and will affect my future job opportunities. I realized that project management and system development are the fundamental and play an important role in computer science. I plan to succeed in the next four years by mastering programming, following the SDLC phases, and developing teamwork skills to prepare for a successful in cybersecurity career.

Nurul Hafizzah : This talk exposed me to the reality of the work scope; it makes me realize the importance of understanding what I had learned in university as I am going to apply it in my job. Hence, to be successful in my next four years, I am planning to focus on my studies at university and join a lot of computer science related workshops to secure my ambition as a cybersecurity analyst.

Nurin Natasha : This industry talk really changed how I view my future in Network and Security. I realized that being a great student is not just about how fast I can code, but about my ability to act as a system architect who can design secure systems from the ground up. Over the next four years, I plan to follow the 60/40 success formula by focusing more on mastering project management and system design, while using AI tools to handle the basic things.

Sharifah Nadiah Balqis : From this talk, I learned that success in computer science needs continuous learning, not only by understanding theory but also by mastering practical concepts such as system development and project management. Throughout the next four years, I will upgrade my skills and practice more problem-solving, not fully relying on AI, so I can apply it in my FYP and career in the computer science field.

## 7.0 REFERENCE

- Ruparelia, N. B. (2010). Software development lifecycle models. *ACM SIGSOFT Software Engineering Notes*, 35(3), 8–13. <https://doi.org/10.1145/1764810.1764814>
- Schwalbe, K. (2017). *An Introduction to Project Management, Sixth Edition With a Brief Guide to Microsoft Project Professional 2016*. <https://intropm2.com/wp-content/uploads/2017/09/6e-ch-1-sep-6-2017.pdf>
- Lawal, Y. (2025). Integrating Cybersecurity into Project Management: A scoping review of current practices and gaps. *Journal of Technology Studies*, 50(1), 53-63. <https://doi.org/10.21061/jts.430>