



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**SECP1513 - TECHNOLOGY & INFORMATION SYSTEM
SEMESTER I 2025/2026**

LECTURER: DR. SURIATI BINTI SADIMON

**TITLE:
ACADEMIC WRITING ON INDUSTRIES TALK 2**

SECTION: 9

GROUP 4

NAME	NO.MATRIX
NUR AQMAL IMANI BIN HASSNOR	A24CS8009
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DESCRIPTION OF SPEAKER EXPERIENCE

The speaker initially describes his realization on how important System Development is a bit late as it is after graduation from university. The speaker realizes after 3 years of working in the industry to rummage through old notes and resources on System Development. The speaker acknowledges his shortcomings initially in his first 3 years of working as he did not implement most of his lessons learned in classes to his work environment even as far as describing struggles from the job interview asking him about SDLC. The speaker said he has a newfound appreciation and understanding of the matter since the events previously mentioned. The overall talk is founded by the speaker's experience to help students to start understanding the matter earlier before it is too late to encourage students to not reenact his situation.

WHAT IS PROJECT MANAGEMENT

The Project Management Institute defines project management as *"the application of knowledge, skills, tools, and techniques to project activities to meet project requirements"* (2021). It focuses on planning and managing resources within time, cost, and scope constraints. *In computer science, it facilitates the completion of projects such as data engineering, networking, and graphics programming* (Sommerville, 2016).

HOW PROJECT MANAGEMENT USED IN COMPUTER SCIENCE

- **Data Engineering** - Organizes data pipeline tasks (collection, processing, and validation) ensuring quality and reducing errors.
- **Computer Networks** - Manages network design, configuration, and testing, while mitigating risks like downtime and security issues.
- **Bioinformatics** - Supports integration of biological data analysis and algorithm development, using structured planning to handle large datasets accurately.
- **Computer Graphics** - *Guides creative workflows in modeling, animation, and rendering, enabling iterative refinement based on feedback* (Schwaber & Sutherland, 2020).

WHAT IS SYSTEM DEVELOPMENT

System Development refers to a structured process used to plan, design, build, test, and implement information systems to meet organizational or user requirements (Nunamaker et al, 1990). It consists of well-defined stages known as the System Development Life Cycle, which ensures the orderly and efficient development of a system.

HOW SYSTEM DEVELOPMENT USED IN COMPUTER SCIENCE

System Development is used in Computer Science to make sure that Software and Information Systems are built in a well-structured, and systematic way. The SDLC provides support for Requirement Analysis, System Design, Implementation, Testing, and Maintenance of Software to ensure Quality and Reliability. Structured System Development in Information Systems and Application Development has been proven to improve Data Integrity, Security, and Scalability of Applications and Systems (Nunamaker et al., 1990).

In addition to Structured System Development, Iterative Development Approaches like Agile also provide for Continuous Improvement through User Feedback and Regular Testing, and is currently one of the most popular methods used in Modern Software and Web-Based Systems (Schwaber & Sutherland, 2020). Ultimately, System Development is critical to Computer Science in terms of Risk Reduction, Improving System Quality, and Ensuring that Solutions meet Real World Needs.

REFLECTION

- 1) **Aqmal** - The discussion focused on blending technical and soft abilities. Over the next four years, I want to improve my programming, teamwork, and adaptability so that I may excel in a variety of computer science projects.
- 2) **Aisah** - The workshop emphasised the importance of coordination when working with enormous datasets. To acquire reliable study outcomes, I intend to strengthen my programming and analytical skills while utilising project management techniques.

- 3) **Cheng** - I discovered that managing data projects necessitates defined milestones and collaboration. My goal is to improve database and pipeline skills while utilising project management to achieve consistent results.
- 4) **Aiman** - The discussion demonstrated that project management is critical for organising technical work. In the next four years, I intend to master networking and graphics while using systematic planning to provide secure and innovative solutions.
- 5) **Hazim** - Agile methodologies became essential for creative endeavours. I intend to improve my modelling and animation talents while employing iterative planning to create creative graphics apps.

REFERENCES

- 1) Project Management Institute (PMI). (2021). *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. PMI.
- 2) Sommerville, I. (2016). *Software Engineering*. Pearson.
- 3) Kerzner, H. (2022). *Project management: A systems approach to planning, scheduling, and controlling*. Wiley.
- 4) Schwaber, K., & Sutherland, J. (2020). *The Scrum Guide*. [Scrum.org](https://www.scrum.org/).
- 5) Nunamaker, J.F., Chen, M. & Purdin, T.D.M. (1990). *Journal of Management Information Systems*.