UTM UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
UTM Johor Bahru

Semester 1 (2025/2026)

Subject: Technology and Information Systems (SECP1513)
Title: System Development Life Cycle (SDLC)
Task: Academic Writing
Group: 1
Section: 5
Lecturer: Dr Azurah

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1.0 Introduction

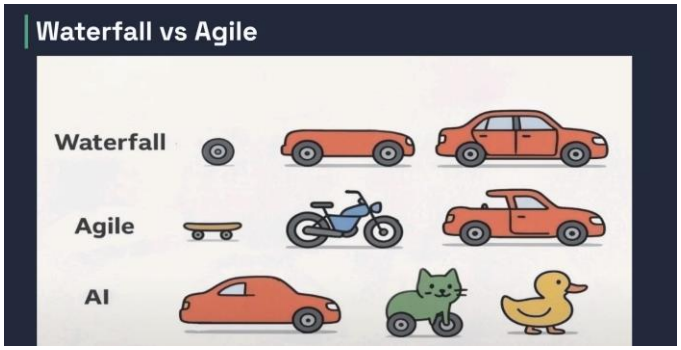
On 18 December 2025, students from the Faculty of Computing had the opportunity to attend a talk delivered by Ts. Hj. Abdul Alin bin Abdul Mutallib who is a graduate from Universiti Teknologi MARA (UiTM). With over ten years of professional experience in information technology, he has worked with various organizations and participated in numerous system development projects that involves many types of systems and development approaches.

In reflecting on his career journey, Ts. Hj. Abdul Alim shared that his first three years in the field presented by challenges faced, largely because of his struggles to apply the theoretical knowledge gained during his studies to his practical work. This could be as simple as during interviews, where he failed to explain the Software Development Life Cycle (SDLC) clearly. He then realized the importance of understanding the basic concepts and not memorizing them.

2.0 Understanding System Development and Project Management

System development represents a comprehensive framework that extends far beyond programming. According to Ts. Hj. Abdul Alim, this process involves multiple interconnected phases. This approach ensures that systems are not only functional but also sustainable, scalable and aligned with organizational objectives. The System Development Life Cycle (SDLC) provides a structured methodology for this process which are planning, engineering, documentation, design, development, testing, deployment and maintenance.

On the other hand, project management is to organize time, cost and teamwork during the entire project. The two main methods are waterfall and agile. Waterfall used linear approach where each phase finishes before the next ones. As for agile, it takes the iterative approach using sprints and is flexible with quick changes.



3.0 How They Are Used in Computing Fields

For data engineering, system development designs data pipelines. While project management controls timelines for data flow projects. As for computer networks, system development plans secure network design and project management schedules network upgrades and team coordination. Other than that, system development benefits computer graphics by building rendering engines while project management will sync programmers and artists. Finally, for bioinformatics, system development processes large biological data as project management handles research timelines and mixed teams.

4.0 **Reflection**

a) Lily Amira Barisya binti Shahrul Sham (A25CS0082):

Ts. Hj. Abdul Alim's talk showed that success in computing needs both technical and hands-on skills. Knowing methodologies like SDLC and project management is just as important as coding in the real-world. In 4 years, I want to be able to achieve greatness in this field and I will do it by applying the theories I learned in classes to real-world scenarios. Not only that, but I will also push myself to get out of my comfort zone in order to gain more valuable skills such as communications, coding, and a lot more.

b) Sivaraam A/L Murukan (A25CS0355)

Ts. Hj. Abdul Alim speech opened my eyes about coding. Coding isn't enough to succeed,to be succeed we need to be the one who possesses SDLC, agile, and project management to get the idea. In four years, I want to be excellent, so I'll make theory and reality converge by diving into real projects, getting me out of my comfort zone, working on communication, teamwork, and leadership, working with tougher code, and learning more things. In the future I will succeed in Information Technology field by applying what Ts. Hj. Abdul Alim said.

c) Muhammad Adib bin Mohd Soffee (A25CS0258)

From the talk delivered by Ts. Hj. Abdul Alim bin Abdul Mutallib, I have gained a lot of knowledge related to the field of information technology and computer science. One of the important things I've learned is understanding the System Development Life Cycle in software development as well as in our daily life. Every task must be well planned and researched to produce a quality product. In addition, AI is just an advanced technology that makes it easier for users but cannot replace human in solving difficult problems. Therefore, every individual should not rely entirely on AI but instead need to improve basic skills such as programming and problem solving. This talk also taught me about the importance of teamwork, and communication to help my future in this computer field.

d) Chen Xin Yan (A25CS0049)

After listening to the talk, I developed a clearer understanding of the System Development Life Cycle (SDLC). As AI is revolving rapidly in this era, agentic coding has been introduced. Therefore, instead of focusing solely on becoming a coder, I aim to develop my skills as a system architect to stay competitive in the next four years.

5.0 **References**

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