UNIVERSITI TEKNOLOGI MALAYSIA

SECP1513-02 TECHNOLOGY AND INFORMATION SYSTEM
ASSIGNMENT 3: ACADEMIC WRITING

TITLE: PROJECT MANAGEMENT AND SYSTEM DEVELOPMENT

GROUP: DATAVENTURE

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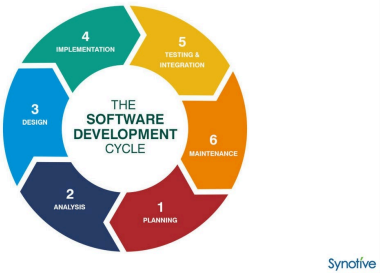
1. INTRODUCTION

Project management refers to the process of planning, organising, and controlling resources to achieve specific requirements and specific goals, while system development involves the structure of designing, testing, development and maintenance. In the talk, these concepts were presented as essential foundations in Computer Science and were shown to be widely applied across various domains.

Program management and system development are used in data engineering to manage large scale data pipelines and to ensure the data quality, in computer networks to deploy reliable communication systems, in computer graphics to coordinate complex systems and in bioinformatics to develop computational tools for analysing biological data. In summary, this talk highlighted how integrating these approaches enables efficient, scalable, and high quality system development across different computing fields.



2. CONTENT

The industry talk focused on the practical application of project management and system development in the project. The speaker shared his experience with us. In the first three years of work, he always struggled because he could not connect the theory he learnt in the university with his work. This experience alerted us to apply our theoretical knowledge we learnt in the class when we were doing our project in the 4 years of university study. According to the speaker, we should carry out the Software Development Life Cycle (SDLC) to do the project management. The industry did not want the worker who was just smart in coding, but the project management also. We should always plan the progress, analyse the problem, design the solution, implement the solution and do the testing. This helps us to identify the problem easier and solve the problem effectively. By carrying the project with SDLC, this also helps us to learn effective communication among team members. SDLC helps the project develop like a waterfall, going smoothly. The speaker gives an example with cooking nasi lemak in the morning. We need to define what we want to cook first, then design to prepare all the ingredients step by step. This was similar to our software development with project management. In a nutshell, the content in the talk provided a comprehensive overview of how project management and system development principles are applied in the industry.Project management is critical in system development to ensure that systems are delivered on time and with quality. We should continuously learn and apply the theory in the work of our project. This is the only way to deliver success in the computer science field.

3. REFLECTION

- **FARAH ADILAH BINTI AZMAN (A25CS0217)**

  Based on this talk, I realised that success in a Computer Science related job is not solely determined by technical skills, but also by strong project management skills and a clear understanding about Software Development Life Cycle (SDLC), which I learned in my Semester 1 Technology and Information System course. Over the next four years, I plan to apply these concepts in my undergraduate programmes by approaching academic and technical projects systematically, such as defining project requirements, designing solutions, testing thoroughly, and reflecting on outcomes for any improvements. As technology evolves rapidly, I intend to practice self-learning by exploring new tools and concepts beyond the syllabus to remain adaptable and relevant. In conclusion, the talk reinforced technical competence and SDLC discipline are key to achieving long term success in Computer Science.

- **WAN FARUQ JAZLI BIN WAN AHMAD JAFFRY (A25CS0372)**

  After listening to the talk, I gained a deeper understanding of how project management works since I already learned it throughout high school. The talk highlights the importance of System Development Live Cycle (SDLC) and each of its phases, which is planning, analysing, design, implementation and testing and maintenance. The speaker also mentioned the difference between Waterfall and Agile Methodology which he also emphasised the flexibility of Agile compared to Waterfall. I am also enlightened by the use of Agentic Coding while learning. Instead of using AI to do my work, I can use AI to support me . Also, I took the 'FYP Trap' warning to heart and plan to build a strong foundation now to ensure a smooth fourth year. In conclusion, the talk helped me reinforce my understanding in terms of technical knowledge and learning skills using AI.

- **EDWIN WONG JING HAO (A25CS0215)**

  By listening to industry talk, I gain a broad understanding of how I can prepare for success in the computer science field over the next four years of my degree. The speaker highlighted the importance of project management skills in the industry besides the technical skills. I plan to strengthen my understanding of system development by applying the System Development Live Cycle(SDLC) concepts,which are planning, analysing, designing, implementation and testing in my project and assignment.By the way, I can improve my communication, time management and teamwork skills. In addition, I learn to use AI tools wisely as a supportive tool to enhance productivity rather than replacement of the proper learning platform. In conclusion, the industry talk reinforced the vitality of combining technical knowledge with project management principles and continuous learning to achieve future success in computer science.

4. REFERENCES

Panheiro, J. (2018, April 12). *Software development life cycle (SDLC) phases | by Jilvan Pinheiro | Medium*. Software Development Life Cycle (SDLC) phases. https://medium.com/@jilvanpinheiro/software-development-life-cycle-sdlc-phases-40d46afbe384