UNIVERSITI TEKNOLOGI MALAYSIA
Faculty of Computing

TITLE:
PROJECT MANAGEMENT AND SYSTEM DEVELOPMENT

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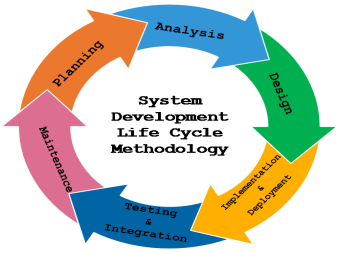
Lecturer: Dr. Aryati Binti Bakri

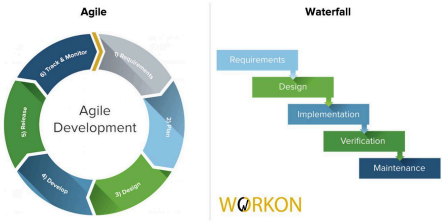
Description of Speaker Experience

The speaker, **Ts. Hj. Abdul Alim bin Abdul Muttalib**, has over a decade of industrial experience in the field of Information Technology. Right after his graduation, he got to experience real-life projects involving not just technical know-how but planning, organizing, and communicating as well in academia. He is one of the prominent senior officials in the current technology-driven company named 'Serunai', focusing on digital solutions ranging from system development for halal product assurance and innovation. He used his personal experience in stressing how essential it is for students to know and understand the fundamentals such as System Development Life Cycle (SDLC) and project management, which in his opinion are essential skills for ensuring the sustainability of their future careers. Looking at his personal experience in overcoming the early struggles of academia and industry, he shared precious insights in bridging the learning gap in academia and industry reality for the students to better grasp the realities of their industrial expectations in terms of their technological know-how.

Project Management and System Development

System Development covers software and hardware development. Project Management constitutes a systematic and efficient process for project execution, meaning leading teams and completing tasks effectively and promptly. The speaker mentioned that every project has a System Development Life Cycle (SDLC), which has planning, designing, building, and maintaining the system., which includes planning, designing, building, and maintaining the system. Project managers oversee teams and project execution, utilizing three vital limitations: scope(the required work), time(the deadline), and cost(the available budget). The three aforementioned factors are extremely important for obtaining quality of result. Besides, there are two primary options within project management, and they are Waterfall and Agile methodology. Waterfall method represents conventional project management and has a step-by-step execution plan, meaning each action needs completion before moving on to the next step. This approach provides clear structure and documentation. Agile is a modern approach where teams work in short cycles and continuously improve based on feedback. Both methods are valuable tools that lead to a successful project.





Use of Project Management and System Development in Data Engineering

Project management and system development help data engineers plan, build, and maintain complex data systems. When data engineers work with projects, project management ensures that data collection, pipeline development, integration, testing, and deployment are carried out on time, aligned with users' requirements, and also resource availability. Besides, the System Development Life Cycle (SDLC) guides data engineers to do their work in an organized way. For example, systematic phases including requirements analysis, data architecture design, implementation of data pipelines, validation of data quality, and ongoing maintenance. These steps help reduce risks and also benefits in managing large-scale data infrastructures. Moreover, the Agile methodologies as mentioned by the speaker are increasingly applied by data engineers when working with projects. This is because the Agile methodologies allow data engineers to make changes rapidly according to business needs.

Reflection

 **Cheng Zhi Min** **A25CS0050**	The speaker explained SDLC using relatable real-life examples, such as cooking and university enrollment. Such examples showed how system development resembles any routine procedure: planning, execution, evaluation, and continuous improvement. Teamwork is another vital ingredient; as in professional industry settings where people hardly ever work alone, cooperation and clear communication are important. Hence, in order to do well in this Computer Science course for the next four years, it is crucial to participate in social activities, for example, PERSAKA, that can improve my problem-solving, communication skills, and teamwork other than learning from lectures.
 **Farah Aisya Binti Jaafar** **A25CS0218**	From the talk about Project Management and System Development, I learned how crucial these methods are in making sure our work progress becomes smooth. By implementing these methods on my next project, I can avoid facing any chaos. The speaker also gives a very clear vision on how the System Development Life Cycle (SDLC) can lead to successful results by giving daily routines as examples such as cooking. Besides, in the next four years, I plan to apply the knowledge and skills I have gained from this talk to every project I work on. By implementing these methods, I am confident that I can build a successful career in the future.
 **Muhammad Hafizuddin Hakimi Bin Hasmadi** **A25CS0273**	This speech gave me a clear understanding of how to apply what we learn in class to real-world applications. The speaker emphasized that mastering basic concepts such as System Development Life Cycle (SDLC) is very important for building a sustainable career, not just having technical skills. I learned that real projects require good planning, communication, and teamwork to ensure quality results. His explanation of Waterfall and Agile methods also helped me understand how systems are developed in practice. Overall, the talk motivated me to focus more on strengthening my fundamentals to better prepare myself for future industry challenges.

References

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