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INDUSTRY TALK 2
PROJECT MANAGEMENT AND SYSTEM DEVELOPMENT
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Description of Speaker's Experience

Speaker graduated from Universiti Teknologi MARA (UiTM) around 2014–2015. Over the past ten years, he worked with multiple companies and participated in various development projects. Through these opportunities, he was involved in different types of projects. Currently, the speaker is working in a company that focuses on developing Halal solutions.

The speaker also described the challenges he encountered during the initial stages of his career. He explained that during his initial three years of working, he had challenges since he did not apply the concept of knowledge acquired during his studies into his profession.

In addition, the speaker also talked about his regret regarding one of his job interviews experiences, where he could not clearly explain the Software Development Life Cycle (SDLC) when questioned. This incident made him realize the importance of truly understanding fundamental concepts.

Basic skills required for Computer Science

To succeed in computer science, students must develop several fundamental skills. Then what is example of fundamental skills required for computer science?

2.1 *Programming Languages*
Programmer must be proficient in programming languages such as Java, Python, C++, JavaScript, and much more. Most software is built by teams. Proficiency helps programmer read and understand each other's code and follow industry standards.

2.2 *Database Administration and Management*
It is important skill in computer science because it helps store, organize and manage large amounts of data efficiently which many of companies use it. An example of a companies that uses large amount of data is Amazon, Netflix, Uber and much more.

2.3 *Software Development Life Cycle (SDLC)*
Knowledge of SDLC helps programmers plan, design, develop, test, and maintain software systematically, ensuring that projects are completed efficiently, on time, and with high quality.

Skills required by industry

Computer Science graduates today need more than just strong coding skills to succeed. The industry wants professionals who combine deep technical knowledge with practical abilities to solve real-world problems. There are some skills required by Industry nowadays:

3.1 *Soft / Professional skills*
Despite the technical nature of computer science, the industry consistently highlights that soft and professional skills are fundamental to success. Employers do not just seek programming expertise; they prioritize a hybrid skill set. Critical abilities like communication, teamwork, business understanding, and English proficiency are often as important as technical tools, bridging the gap between academic knowledge and real-world job demands.

3.2 *Technical / hard skills*
Industry analyses reveal that modern technical roles require a versatile and specialized skill set spanning four key domains: general programming, software development, infrastructure and security, and embedded systems. Proficiency in tools like SQL, Git, cloud platforms, cybersecurity principles, and software development methodologies is consistently prioritized in job postings. To remain employable, graduates must align their learning with these evolving technical demands, ensuring their skills meet the practical needs of today's tech landscape.

3.3 *Application of knowledge and workplace readiness*
Graduates often lack the practical ability to apply academic knowledge to real industry challenges, creating a readiness gap upon hiring. Bridging this requires project-based learning, industry collaboration, and hands-on experience, ensuring students can transition smoothly from classroom concepts to workplace productivity.

INDIVIDUAL REFLECTION

DINIE	As I embark on my education journey in Computer Science, I am dedicated to learning by doing and applying the skills I have acquired in the Software Development Life Cycle (SDLC). For example, I will start by learning to understand deeply about the problems that I have been given in class or through assignments. Next, I will aim to improve my skills in designing software to ensure that my codes are well-organized. Next, I will aim to improve my programming skills using the C++ programming language. Moreover, I would focus my efforts on a balanced delivery of my artificial intelligence (AI) tools and coding practices. This would enable me to focus at least 40% of my coding implementation tasks using the aid of AI tools while allocating the remaining 60% of my time to enhancing my skills of designing systems and other organizational tasks. Moreover, I would start to focus on every topic and not to ignore the skills that I will learn in the syllabus.
ZUHAIRI	From the talk, I learned that success in Computer Science requires not only technical skill but also on practical skill. During my journey in UTM starting now, I will start mastering and learning all the basic skills in Computer Science such as multiple programming languages and different type of structures. Not only that, I will also learn independently using online resources and books to stay updated with new technologies. By managing my time well, doing all practices and learning new skills, I believe I can succeed in the computer science field.
AMMAR	Based on the talk given by TS. HJ. ABDUL ALIM BIN ABDUL MUTALLIB, I learned so many things from him and one of it is I learned to the concept of the System Development Life Cycle (SDLC) that is used by all programmers and other workers. Other than that, SDLC were not only been using by worker to develop software, but it is also used for our daily lives. For instance, when we want to make nasi lemak, we must plan it first before acting. This action is one of the concepts that include in the SDLC. Besides that, this talk also explain the difference between the Waterfall method and Agile method, where the Waterfall method took a long time to finish tasks, but takes a short if we use the Agile method. There is also a question that change my mindset completely, why do we still need humans to doing this coding while AI can already take the place of all the programmers to develop coding. The speaker said AI can write whole code, but it does not have a human brain to think and sometimes AI is not always correct. This statement changed my mind completely. Finally, there is some advice from the speaker that can be remembered and used in the future. One of them is “you must never stop learning other skills and only stop learning if you meet your death”.
SHAHEED	Based on the talk, I learned that I should not rely 100% on AI for my work, especially for my final year project. It is a tool, not a replacement for my own understanding and effort. I also realized that social skills are crucial, as real-world work is almost always done in teams, not alone. Furthermore, I must always keep learning new things because the IT field is vast and constantly evolving. Staying curious and updating my skills is essential to avoid falling behind and to secure a good job in the future. In short, the key is balancing technical skill with continuous learning and teamwork.
RIDWAN	I learnt that to be successful in my field of study, Network and Security, there are many aspects to be considered. Network and Security are evolving fast nowadays; thus, huge and rapid workload are a certainty. Therefore, in a large-scaled projects or assignments, two important aspects are planning and working as a teammate as heavy task requires big labour force, precision and various opinions to generate outcomes with high efficiency. Besides that, applying agile method is one of the best ways to complete group assignments because it allows you to communicate between teammates without having to repeat the same work again because of arguments. I will also develop my coding language skills and the implementation of it as to not rely 100% on A.I and left clueless if A.I is down. By combining technical skills and solid collaboration and planning strategies, I hope it will help me succeed in pursuing my education in the future.

List of references: https://docs.google.com/document/d/1_JVWRGxIRiWkKFIorXC6Z8RIMu-xHrAtFOX-9G6DAdM/edit?tab=t.0