



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

REPORT ON INDUSTRIAL TALK 2

SYSTEM DEVELOPMENT AT CREDENCE (TM SUBSIDIARY)

TOPIC COVERED :

1. DESCRIPTION OF THE SYSTEM DEVELOPMENT
2. HISTORY
3. TECHNOLOGY AND TOOL USE IN CREDENCE'S SYSTEM DEVELOPMENT



GROUP MEMBER :

1. MIOR DANIAL HAKIM BIN MIOR ZAINUL BASRI (A23CS0111)
2. ANAMUL HASAN RIFAT (A23CS4006)
3. WAN MUHAMMAD AFIF ZIKRY BIN WAN RUSLAN (A23CS0282)
4. AMER FITRI BIN JIMMY (A23CS5041)
5. DILLAN REVADA (A23CS0290)

Description of the System Development

System development refers to the process of creating and maintaining information systems. The system development life cycle (SDLC) is a common framework used for guiding the process of system development consisting of Planning, Analysis, Design, Development, Testing, Implementation and Maintenance. In the **planning stage**, the project's scope, objectives, and requirements are defined, and a project plan is created. The **analysis stage** involves gathering detailed information, specifying system requirements, and often creating a Software Requirement Specification (SRS) document. During the **design stage**, a detailed logical structure of the system is developed, including architecture and prototypes. **Development stage** involves coding and building the actual system. The **testing stage** ensures the application's features work correctly and coherently and fulfill the requirements. **Implementation stage** is where the application is released to end-users. The **maintenance stage** ensures ongoing system functionality, addressing bugs, making updates, and responding to changing needs.

(Credit : <https://www.intellectsoft.net/blog/what-is-system-development-life-cycle/>)

History

The speaker interned at TM ONE in 2019-2020 as a social media data analyst and was later hired by the company upon graduation. She then progressed on to become a Data Engineer during 2020-2022 and now she currently works as a professional, AI operator.

Credence was launched by Telekom Malaysia Berhad (TM) on 6 July 2022. It was launched to expand the capabilities of enterprises and the public sector in their digital transformation journey by providing end-to-end digital solutions and services. Krish Datta, an experienced technology leader, took charge of leading the Credence. He joined TM in late 2021 to shape its new digital services arm.

(Credit : <https://tm.com.my/news/tm-launch-credence/>)



CEO of Credence, Krish Datta

Technology use in Credence's System Development

These are the technologies that is being used by Credence according to the speaker.

- For database or online analytic processing (OLAP), they use PostgreSQL, ClickHouse and Druid where most of the time PostgreSQL will be used
- For ETL/ELT process, Airflow and Spark are two tools being used. Most commonly, Airflow will be the one that is used most of the time



ClickHouse



- For visualization tools, they use two most popular tool which is Tableau and PowerBI. For customer with limited budget, they use Metabase and Superset as it's more cheaper.



- For programming language, SQL and Python are two most important programming language and required strong skills for both of it. Bash Syntax is used by Data Engineer for cloud data pipeline.



Reflection

How You Will Be A System Developer In The Next Four Years?

1. Mior Danial Hakim bin Mior Zainul Basri (A23CS0111)

I learned what analytics is from the talk, which is a systematic way of analysing data to extract information from it. I also learned about a few jobs in the analytics field, such as business analyst, data architect, data analyst, data engineer, and data scientist. The talk expands my knowledge of new and interesting paths I could pursue in the future. To become a system developer in the next four years, I would continually improve my programming skills, stay up-to-date with current technologies, and actively participate in any relevant projects to gain experience.

2. Anamul Hasan Rifat (A23CS4006)

In the next four years, I envision my journey as a system developer to be a dynamic and transformative experience. As I delve into emerging technologies, gain practical experience, and expand my knowledge base, I anticipate honing my skills in software development, system architecture, and problem-solving. I am eager to embrace challenges, push the boundaries of my capabilities, and contribute meaningfully to the system development over the coming years.

3. Wan Muhammad Afif Zikry bin Wan Ruslan (A23CS0282)

In summary, the talk provided a clear understanding of analytics as a methodical approach to extract information from data. Various roles in the analytics field, including business analyst, data architect, data analyst, data engineer, and data scientist, were explored, opening up exciting career possibilities for the listener. With a goal to become a system developer in the next four years, the listener outlined a proactive strategy: continuous enhancement of programming skills, staying abreast of emerging technologies, and engaging in relevant projects for practical experience.

4. Amer Fitri bin Jimmy (A23CS5041)

From the talk, I was able to learn and discover many new things in system development in more depth and detail. Things that I only had surface-level knowledge about, such as available jobs, the applications and overall experience in the industry have been massively expanded upon. If I would become a system developer in the next four years, I would think back on what I've learnt from this talk and hopefully apply it in the upcoming future. Not only that, I would also actively improve my skills in programming and development by doing projects so that my skills may meet the standards required by the current industry.

5. Dillan Revada (A23CS0290)

After listening to the talk, I gained a more thorough understanding of system development. It delved into aspects that were previously i know little about, like job opportunities, roles, applications, and the overall industry experience. There are a lot of various roles the previously i didn't know existed, for example a data engineer. From the talk it can be seen that each year, more skills are required for the job. Therefore, I'm actively working on honing my programming and web development skills through hands-on projects such as making a full stack web using MERN stack.