

INDUSTRIAL TALK 2 REPORT

SYSTEM DEVELOPMENT @ CREDENCE (TM SUBSIDIARY)

CREDENCE'S SYSTEM DEVELOPMENT
HISTORY, DESCRIPTION AND
TECHONOLGY AND TOOLS USED IN
SYSTEM DEVELOPMENT



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CREDENCE'S SYSTEM DEVELOPMENT

HISTORY

In July 2022, Credence was launched by Telekom Malaysia Berhad (TM) as a subsidiary of the TM Group. It is a dedicated cloud and digital services company which aim to assist enterprises and the public sector in their digital transformation endeavors.

Credence is led by experienced technology leader Krish Datta. The company make use of TM's core resources and infrastructure to provide end-to-end digital solutions, including technology infrastructure, business insights, cloud consulting, IT landscape migration, SaaS, managed services and analytics.

The main goal of Credence company is to fulfill customer requirements and prioritize their satisfaction by forming valuable strategic partnerships with major industry such as VMware, AWS, and Huawei. Additionally, it aims at bridging the digital skills gap through targeted recruitment from within the technology sector.

In keeping with Malaysia's Digital Malaysia aspirations, Credence also addresses the digital skills gap by making selective recruits from the tech industry and transferring skillsets to develop the next generation of technologically-skilled individuals.

Source: Telekom Malaysia Berhad. (2022, July 6). TM Launches Credence: A New Cloud and Digital Services Company. Telekom Malaysia Berhad News. Retrieved from <https://tm.com.my/news/tm-launch-credence>

SYSTEM DEVELOPMENT

System development is the process of creating something from scratch based on an idea. It is a step-by-step process in which the developer needs to plan, analyze, design, implement, test, deploy and maintain the system. The methodology used in it depends on its goals, needs and priorities.

DESCRIPTION

Credence, launched by Telekom Malaysia Berhad in July 2022, is a dedicated cloud and digital services subsidiary aiming to propel enterprises and the public sector through digital transformation. Led by Krish Datta, the company utilizes TM's resources to provide end-to-end digital solutions, forming strategic partnerships with industry leaders like VMware and AWS. Credence addresses the digital skills gap by recruiting selectively and nurturing technologically skilled individuals, aligning with Malaysia's Digital Malaysia goals.

In system development, Credence employs open-source tools like PostgreSQL, Clickhouse, and Druid for database/OLAP tasks. Visualization tools include Tableau, PowerBI, Metabase, and Superset, catering to diverse customer preferences and budget constraints. Apache Airflow serves as the primary tool for ETL/ELT processes, streamlining data management efficiently.

SQL stands out as the crucial programming language, complemented by the necessity for data engineers to be adept in bash syntax for efficient data collection. Credence's technology stack underscores its commitment to delivering robust digital solutions while addressing evolving customer needs in the dynamic digital landscape.

TECHNOLOGY AND TOOL USE IN CREDENCE'S SYSTEM DEVELOPMENT

Multiple technology and tools is used in Credence's system development, one of them being **database/OLAP tools**. In the development of Credence's system, the tools used are PostgreSQL, Clickhouse and Druid, and all of these are open source tools. In one of the projects, both PostgreSQL and Clickhouse were used, with raw data put in PostgreSQL and synthesized data in Clickhouse. Meanwhile, Druid is more of an OLAP tool.

As for the **visualization tools**, Credence used Tableau, PowerBI, Metabase and Superset. All tools are different in their own way, with Tableau and PowerBI being two of the most popular tools. On the contrary, some customers prefer the usage of Metabase and Superset as both tools are open source tools and cater to their limited budget.

In Credence's system development, Airflow is the primary tool for **ETL/ELT**, seamlessly transforming and pushing data into the database for developers. This streamlines processes, enhancing data management efficiency.

Lastly, SQL stands out as the most crucial **programming language**, demanding mastery from programmers due to its paramount importance. Additionally, data engineers must familiarize themselves with the bash syntax, a language essential for collecting data efficiently.

REFLECTION

NUR ARISHA BINTI AMYRUL NAIM (A23CS0154)

My goal is to acquire a wide range of skills relevant to the field of computer science and enhance my skills to be a skilled developer. Furthermore, I will try to be more involved in team working as Ms. Qistina mentioned that it is wise to eliminate shyness and show your willingness and eager to learn so people will see your potential. The talk has really taught me to be more proactive in order to succeed in whatever we do.

MUHAMMAD NAZMI BIN MOHD SAIFULIZAM (A23CS0135)

The talk about Credence's system development taught me a lot about what analytics is and a lot of career opportunities. Furthermore, I was exposed to common technologies used every day in the field of analytics. The speaker also gave me useful tips and motivations for navigating challenges in the digital world. It made me realize how exciting and important the field of system development is.

LOKE PEI EN (A23CS0242)

I strive to maintain an eagerness to explore new things. As a prospective programmer, I persistently engage in trial and error to resolve the challenges I encounter. Although there might be a few obstacles, I remain steadfast and resolute in not giving up. Furthermore, this talk has provided me with a myriad of knowledge and valuable lessons. The benefits derived from this experience are numerous and contributed to my growth as a student.

ABDALLAH MOHAMED MAHMOUD (A23CS0003)

My goal is to excel in computer science, honing skills as a proficient developer. Embracing collaboration, I actively participate in teamwork and exhibit enthusiasm for learning. The talk on Credence's system development unveiled analytics insights and career prospects, motivating me to persistently explore and overcome challenges in programming.

MUHAMMAD HILMI HIJAZI BIN JAMAL (A23CS0303)

My aim as a computer science student is to learn more about programming and technologies. I will try to follow the tips and motivation given by Ms. Qistina to keep me motivated in pursuing one of my dream to be a successful system developer. It can't be denied that there would be many challenges in the upcoming future. Thus, I will steel my resolve so I can see what the future has for me. I am eager to get new experience and meet interesting people during my career in the future.