



UTM
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**System Development @ Credence (TM Subsidiary)
Industry Talk 2**

Group 3	
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Credence is a cloud and digital services company established by Telekom Malaysia Berhad (TM) in July 2022 to support enterprises and the public sector in their digital transformation journeys. As a corporate start-up powered by TM, Credence offers end-to-end digital solutions, including:

- Cloud advisory
- IT landscape migration
- Software as a Service (SaaS)
- Analytics and insights

1.0 System Development Description

Credence adopts an interesting approach to system development to support enterprises and public sector organizations. The focuses on a structured methodology designed to deliver robust, scalable, and innovative systems oriented to client needs. Here's an overview of their system development practices:

Credence System Development Overview

1. **Analytics-Driven Development:** Leverages AI and real-time data for optimized decision-making and adaptable systems.
2. **Agile and Iterative Approach:** Uses Agile for flexible, client-inclusive development cycles.
3. **Cloud-Centric Architecture:** Builds secure, scalable solutions with AWS, VMware, and Huawei across public, private, and hybrid clouds.
4. **Digital Transformation Framework:** Delivers seamless IT migrations with minimal downtime and end-to-end digital solutions.
5. **Customized Software Development:** Creates user-friendly, secure SaaS and bespoke applications tailored to industry needs.
6. **Data Sovereignty & Security:** Partners with VMware to deliver Malaysia's first sovereign cloud, ensuring compliance with local regulations.
7. **Managed Services:** Provides 24/7 support, system optimization, and monitoring to ensure high performance.
8. **Sustainability & Scalability:** Designs scalable systems with energy-efficient green IT practices. Credence drives digital transformation for enterprises and the public sector, supporting Malaysia's digital economy.

2.0 History of System Development at Credence (TM Subsidiary)

Credence, a subsidiary of Telekom Malaysia (TM), was established as a key player in the system development domain to support TM's digital transformation initiatives. With a vision to drive innovation and operational excellence, Credence has been instrumental in designing, developing, and deploying cutting-edge systems that cater to TM's diverse business needs. The company's journey in system development began with a focus on traditional IT solutions, evolving over time to incorporate modern methodologies and technologies. Initially, systems were developed using monolithic architectures, which were later transitioned to microservices-based models to enhance scalability and flexibility. This shift enabled Credence to meet the growing demand for dynamic, real-time solutions in the telecommunications sector. Through strategic investments in technology and a commitment to upskilling its workforce, Credence has positioned itself as a leader in leveraging advanced tools, such as big data analytics, cloud computing, and AI, to build robust and efficient systems.

3.0 Technology and Tools

We use a range of technologies and tools to manage, process, and analyze data effectively. These include databases for storage, ETL/ELT tools for data transformation, visualization platforms for insights, and programming languages for automation and analytics.

1. Databases / OLAP

- **PostgreSQL:** Open-source relational database for large datasets and advanced SQL.
- **ClickHouse:** High-performance columnar database for real-time analytics.
- **Druid:** Distributed OLAP system for dashboards and event tracking.

2. Visualization Tools

Tableau: Interactive dashboards for actionable insights.

- **Power BI:** Microsoft analytics tool with seamless integration.
- **Metabase:** Open-source BI tool for simple analytics.

3. ETL/ELT Tools

- **Apache Airflow:** Automates data pipelines and workflows.
- **Apache Spark:** Processes large-scale data, supports batch and streaming analytics.

4. Programming Languages

- **SQL:** Queries and analyzes structured data.
- **Python:** Versatile for ETL, AI, and analytics.
- **Bash:** Automates tasks on Unix/Linux systems.

Reflection (Malika):

Learning about Credence has helped me understand the importance of technical skills, strategic thinking, and adaptability in SD. Over the next four years, I aim to become a skilled software engineer by learning tools and technologies, solving real-world problems, and staying open to continuous learning. This will prepare me to contribute effectively to companies like Credence and support digital transformation.

Reflection (Aria):

My four-year plan to become a system developer includes mastering C++ and Python in the first year, followed by learning algorithms, system design, and team collaboration in year two. In the 3rd year, I'll gain industry experience through internships and networking. The final year focuses on building a strong portfolio, exploring emerging technologies like AI and blockchain, and preparing for technical interviews.

Reflection (Tahiya Nuzhath Khan):

I aim to grow into a skilled system developer in four years by combining technical knowledge and practical experience. My plan includes learning Python, C++, and databases like PostgreSQL in the first year, followed by internships and personal projects in year two. By the third year, I'll explore technologies like cloud services and system design tools, and in the final year, I'll integrate my skills into large-scale projects and prepare for a full-time developer role.

Reflection (Pashmia):

The industry talk emphasized adaptability and continuous learning, which I'll incorporate into my four-year journey to becoming a system developer. I plan to master Python, SQL, and tools like Apache Airflow while focusing on scalable system design. Internships, workshops, and collaborative projects will help me gain practical experience, equipping me to thrive in the field.

Reflection (Pranto Anik Islam):

As a first-year student, my goal is to become a software developer in three years by combining academics with practical experience. I'll strengthen my knowledge of data structures, algorithms, and operating systems, and focus on building a strong portfolio on GitHub and LinkedIn. Learning tools like Git and honing adaptability and technical skills will prepare me for success in system development.

Reflection (Khobait Uddin Simran):

Inspired by an industry talk, I'm planning a four-year path to becoming a system developer by starting with foundational programming skills in C++ and Python. I'll enhance my expertise through internships, team projects, and advanced software development processes. By the end, my goal is to create a comprehensive portfolio, expand my professional network, and transition seamlessly into the tech industry.