

REPORT

INDUSTRIAL TALK 2

System Development Credence (TM SUBSIDIARIY)

Presented By :

**MS MS QISTINA
BATRIYA BINTI AZMAN
SHAH**



TEAM MEMBERS:



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Introduction

On December 28, 2023, Universiti Teknologi Malaysia held its second industrial talk, focusing on System Development. The speaker, Ms. Qistina Batrisyia Binti Azman Shah, a former UTM student and Professional AI Operation expert, conducted the two-hour online session via Webex from 2:30 pm to 4:30 pm. Ms. Qistina shared insights into System Development, emphasizing the role of AI in operations. Her talk, blending theoretical knowledge with practical experiences, provided participants with a comprehensive understanding of current trends and challenges in the field. The online format allowed for interactive discussions, enabling attendees to engage with the speaker and gain valuable perspectives. This report aims to capture the key highlights and insights from Ms. Qistina's talk, offering a concise overview of the event and its significance.



The poster features a dark blue background with white and yellow text. At the top, the UTM logo and 'credence' logo are displayed. Below them, the title 'INDUSTRIAL TALK 2: SYSTEM DEVELOPMENT @ CREDENCE (TM SUBSIDIARY)' is written in large, bold letters. In the center, a photo of Ms. Qistina Batrisyia Binti Azman Shah is shown, with her name and title 'Professional, AI Operation' overlaid. At the bottom, the date '28th DEC 2023' and time '2.30 to 4.30 pm' are listed. To the right, the Webex logo and a QR code are provided, along with the URL 'https://bit.ly/4arqy5E'.

UTM **credence**
UNIVERSITI TEKNOLOGI MALAYSIA

**INDUSTRIAL TALK 2:
SYSTEM DEVELOPMENT @
CREDENCE (TM SUBSIDIARY)**

**Ms. Qistina
Batrisyia Binti
Azman Shah**
Professional,
AI Operation

D A T E
28th DEC
2 0 2 3

T I M E
2.30 to
4.30 pm

Online Via
webex
by CISCO
<https://bit.ly/4arqy5E>





www.utm.my



Data Analytics

Ms. Qistina explained that data analytics is about making sense of information. Here are the breakdowns:

1. Data Collection:
 - Gathering information from different places, like databases or sources like social media and government data.
2. Data Transformation:
 - Organizing the gathered data so it's ready for analysis.
3. Analytics and Modeling:
 - Using methods to understand and make predictions based on the data.
4. Prediction and Visualization:
 - Making guesses about what might happen next and creating easy-to-read visuals.
5. Insights and Decision-Making:
 - Figuring out what the data is telling us and using that information to make smart decisions.

In simple terms, data analytics helps organizations use their information wisely, enabling them to make better decisions and plan for the future. Ms. Qistina's explanation highlighted how this process is essential across different fields, making information more useful for everyone involved.



Figure 1: Analytics system

Career Paths in Analytics



Figure 2: Analytics career

1. Business Analyst:

- Role: Interacts with customers to gather information crucial for projects, then communicates findings to the technical team.

2. Data Analyst:

- Role: Analyzes data and insights provided by other teams. Requires proficiency in coding languages like SQL or Python.

3. Data Architect:

- Role: Decides how projects will proceed, such as determining the type of database to be used or the visualization approach.

4. Data Engineer:

- Role: Gathers and retrieves data from customers, preparing it for data analysts to analyze. Requires strong coding skills.

5. Data Scientist:

- Role: Conducts research to discover new technologies and assesses their compatibility with operations.

6. BI Developer (Business Intelligence Developer):

- Role: Focuses on visualization, using constructed data to present to stakeholders. Models' data to make it meaningful and understandable.

Ms. Qistina emphasized that individuals can choose paths based on their interests and strengths. For example, someone inclined toward coding might excel as a Data Engineer or Data Analyst, while those with a penchant for visual storytelling might find BI Developer roles fulfilling. She shared that her own journey started as a Data

Engineer, showcasing how individuals can progress and specialize within the field. The varied career paths in analytics cater to diverse skill sets, contributing to a dynamic and ever-evolving industry. This overview provided aspiring professionals with valuable insights into potential trajectories within the analytics domain.

Credence Overview:

1. Service-Based Company:

Credence, as a service-based company, aligns with the idea of being comprised of a team of experts dedicated to delivering work to meet customer needs, both internally and externally.

2. Emphasis on Analytics and Cloud:

Credence's establishment was motivated by TELEKOM Malaysia recognizing the crucial role of analytics and cloud services in their operations.

3. Technological Landscape:

- **Database/OLAP:**

Utilizes tools like PostgreSQL, Clickhouse, and Druid for effective data management.

- **Visualization Tools:**

Leverages platforms like Tableau, Metabase, Superset, and Power BI for data visualization.

- **ELT/ETL:**

Utilizes tools such as Airflow and Spark for Extract, Load, Transform (ELT) or Extract, Transform, Load (ETL) processes.

- **Programming Languages:**

Proficiency in SQL, Python, and Bash syntax.

4. Workplace Culture:

- **Open Communication:**

Fosters a close-knit community where sharing insights is common. The small company size likely contributes to a more interconnected environment.

- Continuous Learning and Development:

Offers opportunities for certificates and free E-Learning, reflecting a commitment to employee growth.

- Empowerment and Autonomy:

Supportive management trusts employees to handle projects independently, promoting a sense of empowerment and autonomy.

- Celebration of Success:

Acknowledges and celebrates project successes or outstanding employee performances with bonuses.

Ms. Qistina's insights painted a picture of Credence as a company that not only recognizes the importance of cutting-edge technologies but also places a strong emphasis on cultivating a positive workplace culture. The combination of advanced tools and a supportive environment positions Credence as an organization that values both technological innovation and the well-being and professional development of its employees.

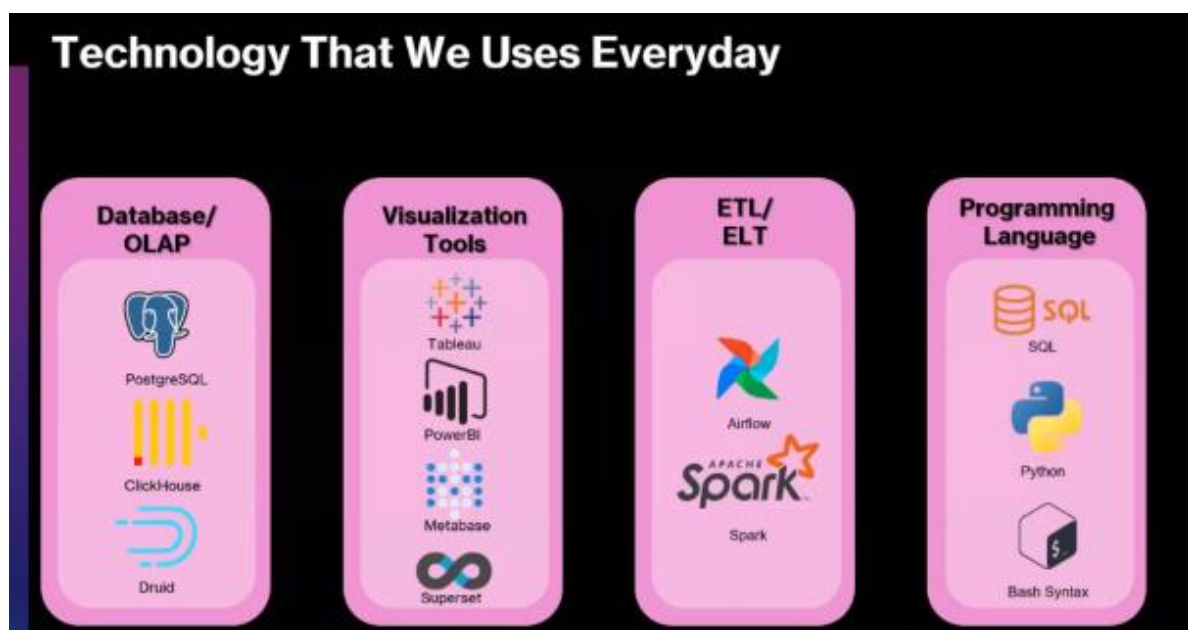


Figure 3: Technology used in Credence

Reflection (Each Team Member)

Team Member 1 – Ahmad Azfar:

Sarah envisions her path to becoming a system developer over the next four years as a dynamic journey marked by education, practical experience, and continuous growth. She plans to pursue a computer science degree, with a focus on software development, to lay a strong foundation. Alongside formal education, Sarah aims to participate in coding bootcamps and workshops to gain hands-on experience in building applications.

Sarah understands the value of networking and plans to join local tech meetups, connect with professionals on platforms like LinkedIn, and attend industry conferences to expand her network. She is keen on specializing in web development and intends to contribute to open-source projects to enhance her coding skills.

Recognizing the importance of mentorship, Sarah seeks guidance from experienced developers in her chosen specialization. She plans to maintain a portfolio that showcases her projects, demonstrating her skills and growth over time. Sarah is committed to lifelong learning, keeping abreast of emerging technologies through online courses and staying adaptable in the ever-evolving tech landscape.

Team Member 2 – Tengku Zaqwan:

Alex envisions a multifaceted approach to becoming a system developer in the next four years. With a background in information technology, Alex plans to complement existing skills with advanced programming languages and frameworks. He aims to enroll in online courses and earn relevant certifications, emphasizing practical applications in system development.

To gain hands-on experience, Alex plans to collaborate on open-source projects and work on personal initiatives. Networking is a priority, and he intends to engage with developer communities on forums and attend tech events. Alex recognizes the significance of specializing in cloud technologies and envisions building solutions that leverage cloud infrastructure.

Seeking mentorship from experienced cloud developers, Alex aims to receive guidance on industry best practices. He plans to maintain an updated portfolio showcasing his projects and contributions to open-source. Alex is committed to staying

current with industry trends through continuous learning, ensuring he remains adaptable and ready for the evolving demands of system development.

Team Member 3 – Muhd Safwan:

Chris outlines a strategic plan for the next four years, emphasizing a combination of academic excellence and practical experience. Pursuing a computer science degree, Chris intends to focus on data structures and algorithms to strengthen core programming skills. Additionally, he plans to engage in hackathons and coding competitions to apply theoretical knowledge in a competitive environment.

To gain hands-on experience, Chris aims to secure internships and participate in co-op programs, allowing him to work on real-world projects. Networking is crucial, and he plans to connect with professionals on LinkedIn, attend tech meetups, and join relevant online communities.

Chris recognizes the importance of specialization and envisions becoming proficient in data analytics within the system development realm. Seeking mentorship from experienced data analysts, he aims to receive guidance on industry-specific challenges. Chris plans to build a comprehensive portfolio showcasing his analytical projects and insights, demonstrating his capabilities to potential employers.

Team Member 4 – Muhd Amsyar:

Jordan envisions a holistic approach to becoming a system developer, combining formal education, practical experience, and a commitment to lifelong learning. Pursuing a degree in software engineering, Jordan plans to participate in internships to gain hands-on experience in the industry.

Networking is a priority for Jordan, who plans to engage with developer communities both locally and online. Attending industry conferences and connecting with professionals on social platforms like Twitter will be integral to expanding their network. Jordan recognizes the importance of specialization and envisions focusing on cybersecurity within the system development domain.

Seeking mentorship from seasoned cybersecurity experts, Jordan aims to receive guidance on navigating the complexities of securing systems. Maintaining a portfolio highlighting cybersecurity projects and certifications, Jordan aims to showcase their expertise to potential employers. Committed to continuous learning, Jordan plans to

stay updated on the latest cybersecurity trends and technologies, ensuring a robust and adaptive skill set over the next four years.