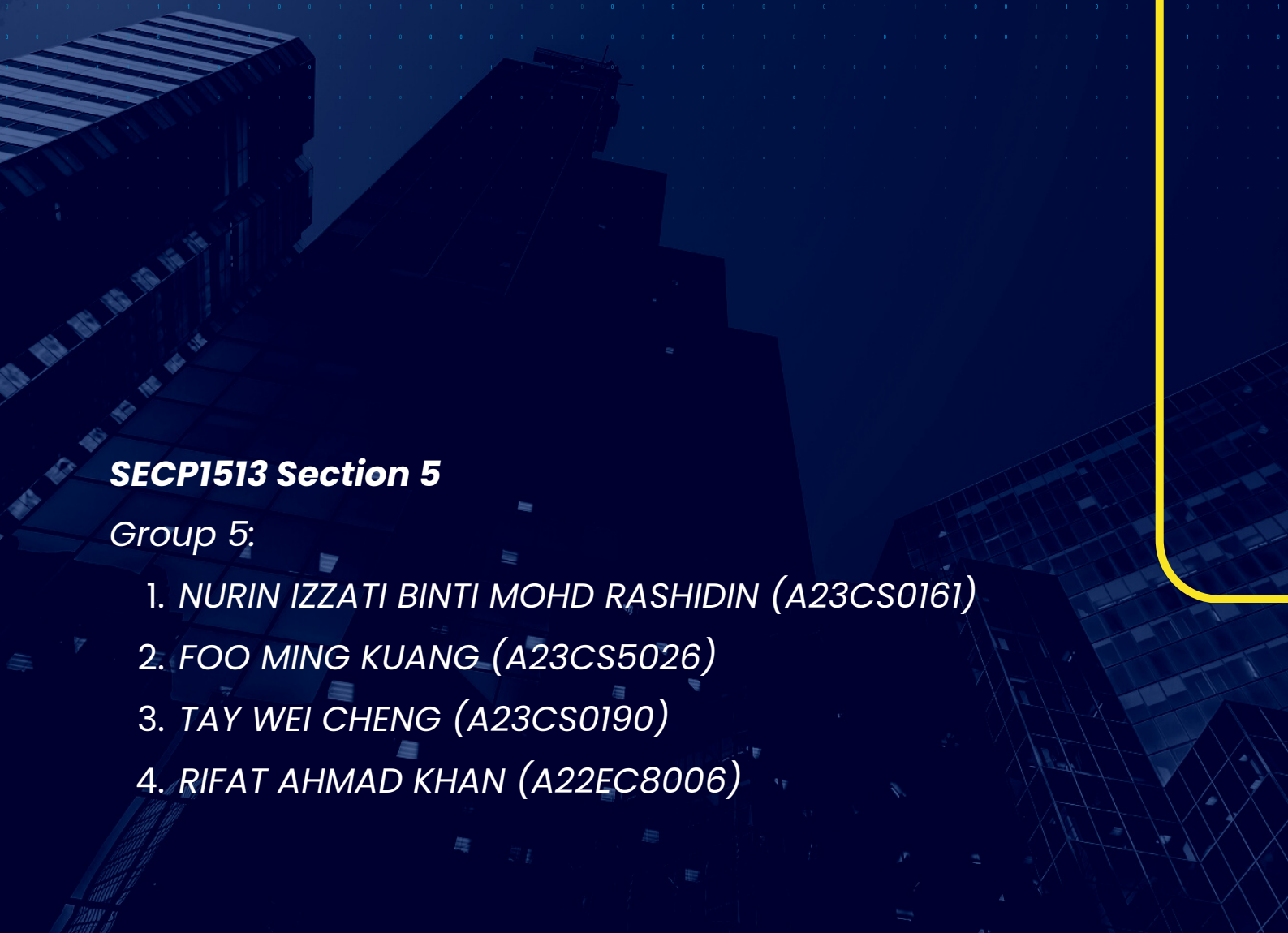
28 December 2023

REPORT

on Industry Talk 2

System Development @ Credence (TM Subsidiary)
by *Ms. Qistina Batrisyia Binti Azman Shah*



SECP1513 Section 5

Group 5:

1. *NURIN IZZATI BINTI MOHD RASHIDIN (A23CS0161)*
2. *FOO MING KUANG (A23CS5026)*
3. *TAY WEI CHENG (A23CS0190)*
4. *RIFAT AHMAD KHAN (A22EC8006)*

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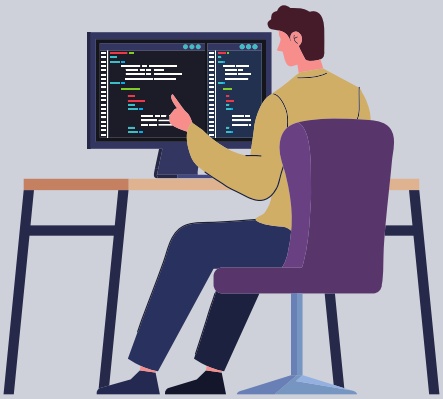
CONTENT



Description of System Development

Ms. Qistina provided a comprehensive overview of system development, highlighting its pivotal role in extracting valuable insights from data to enable informed decision-making. Emphasizing its broader scope beyond mere data analysis, she explained how system development encompasses a systematic process involving data analysis, collection, transformation, modeling, and visualization. This process serves as a conduit for conveying critical insights across various domains, including business, finance, healthcare, transportation, and more.

History

Drawing from her personal experience, Ms. Qistina shared her journey in system development. Having graduated in computer science data engineering from UTM in 2020, she joined Credence, a subsidiary of TM (Telekom Malaysia). She elaborated on her initiation through industrial training in an analytics department, where she faced both challenges and opportunities. During this phase, she actively engaged in projects related to social media data analysis. Her narrative underscored the transition from an analytics-focused role during her studies to specializing in data engineering post-graduation. She emphasized the significance of mentorship and learning opportunities that shaped her professional trajectory.

Technology Use in System Development

Ms. Qistina delved into the technological landscape prevalent at Credence, shedding light on the tools and platforms integral to their projects. She highlighted the significance of databases like PostgreSQL and SQL in managing both structured and external data efficiently. Additionally, she expounded on the role of visualization tools such as Tableau, Metabase, and Superset in translating complex data into easily comprehensible visual formats. Furthermore, she touched upon the utilization of open-source tools like Metabase and Superset, in conjunction with ETL (Extract, Transform, Load) and ELT (Extract, Load, Transform) processes facilitated by tools like F-Flow. These tools played a pivotal role in streamlining data collection, transformation, and database population.

Tools Used in Credence's System Development

Credence's approach to system development heavily relies on a robust technological stack. PostgreSQL and SQL databases serve as the backbone for managing diverse datasets, ensuring efficient storage and retrieval. The incorporation of visualization tools like Tableau, Metabase, and Superset enables the translation of complex data sets into visually intuitive representations, aiding stakeholders in grasping critical insights. The integration of cloud platforms such as Azure and AWS provides scalable and robust infrastructure for their system development initiatives. Additionally, Ms. Qistina highlighted the importance of ETL/ELT tools like F-Flow in optimizing data processing, transformation, and visualization, ultimately enhancing their development lifecycle.

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REFLECTION

How you will be a system developer in the next four years?

Nurin Izzati :

Through participating in discussions within the system development industry, I foresee encountering challenges over the next four years as a system developer. It is crucial for me to stay updated on the latest advancements in this field. I am committed to continuous learning and enhancing my skills, particularly in managing databases and decision-making processes. Recognizing the importance of staying current with technology, such as incorporating tools like Metabase and Superset, is essential for making a positive impression on my ideal company. Actively seeking opportunities to engage in industrial training related to technology management is on my agenda. By doing so, I hope to gain valuable insights and experience, similar to Ms. Qistina, who navigated challenges successfully. This approach will not only help me become familiar with the working environment but also nurture innovative thinking and enhance my problem-solving skills in real-life scenarios.

Foo Ming Kuang :

Ms. Qistina Batrisyia's talk illuminated the intricate landscape of system development, revealing its crucial role in driving informed decision-making through data. Her insights into the systematic process of data analysis, transformation, and visualization resonated deeply, highlighting the fusion of technology and methodology in this field. Inspired by her narrative, I aspire to carve my path as a proficient system developer over the next four years.

My journey forward involves a commitment to continuous learning and skill enhancement. I aim to immerse myself in advanced coursework, focusing on database management, data transformation, and visualization techniques. Practical experience will be pivotal, and I'm eager to engage in internships or projects that provide hands-on exposure to diverse facets of system development. Embracing mentorship opportunities and actively participating in the tech community will form the bedrock of my growth, fostering adaptability and innovative problem-solving in the evolving realm of data-driven technologies.

Tay Wei Cheng :

Over the next four years, I am committed to becoming a proficient system developer by incorporating key principles and insights gleaned from Ms. Qistina Batrisyia Binti Azman Shah's talk on system development at Credence. To emulate her holistic approach, I plan to diversify my skill set by actively engaging in various aspects of the system development lifecycle, including data collection, transformation, modeling, and visualization. Inspired by her journey, I will prioritize adaptability and continuous learning, seeking internships, mentorship programs, and relevant projects to gain practical experience. Additionally, I aim to master the technological tools integral to system development, such as databases like PostgreSQL, visualization tools like Tableau, and cloud platforms like Azure and AWS. Recognizing the importance of ethical considerations, I will prioritize security and privacy measures in my work, staying informed about industry regulations and compliance standards. As technology evolves, I intend to stay ahead of the curve by exploring emerging trends like AI and real-time processing, ensuring that I am well-prepared to contribute effectively to the dynamic field of system development.

Rifat Ahmad Khan :

In the coming four years, my trajectory as a system developer hinges on a steadfast commitment to continuous improvement. I prioritize staying abreast of the latest advancements in technology, particularly in database management and decision-making processes. Remaining current with pivotal tools such as Metabase and Superset is imperative for leaving a substantial imprint within my preferred professional setting. Actively pursuing industrial training in technology management stands as a pivotal agenda item, aimed at garnering invaluable insights and experiences similar to those exemplified by accomplished professionals like Ms. Qistina, who adeptly navigated challenges. This strategic approach extends beyond mere adaptation to the work environment; it aims to cultivate innovative thinking and refine problem-solving skills in authentic, real-world contexts.