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

- (2016-2020) - graduated with a bachelor of Computer Science (Data Engineering) in UTM
- (2019-2020) - Industrial Training as Social Media Data Analyst at TMONE
- (2020-2022) - also working as Data Engineer at TMONE
- (2022-present) - working as Analytics Delivery , AI Operation at Credence

DATE : 28 DECEMBER 2023
TIME : 2: 30 - 4:30 PM
VENUE : WEBEX

THIS REPORT COVERS :

- A comprehensive overview of the system development process.
- A historical account detailing the professional journey of Ms. Qistina before joining Credence.
- Technology and tools employed in the development of Credence.
- Insights and reflections provided by each group member

MS.QISTINA BATRISYIA BINTI AZMAN SHAH
PROFESSIONAL , AI OPERATION

PREPARED BY CANDY CANE

NUR HANANI BINTI AHMAD (A23CS0157)
ABBENISHA ANN MICHAEL BENEDICT (A23CS0029)
KRISTINE ELLE BENJAMIN (A23CS0095)
NUR AINA BALQIS BINTI MOHAMAD ZAPARIN (A23CS0151)
IZZATY BALQIS BINTI SUHAIMI (A23CS0090)

Overview of the Systematic Analysis of Data

Ms Qistina talked about analytics which refers to the systematic analysis data to store insights and make informed decisions. Analytics involves examining a huge sets of data to identify all the patterns , trends and other valuable informations. Analytics can also be applied in a lot of working fields such as finance, business, healthcare, sports and more. In simple ways, there are 4 steps in analytics which are data collection , data transformation , analytics and modelling, prediction and visualization.

Professional History Of Ms. Qistina

Ms. Qistina pursued a Bachelor's in Computer Science (Data Engineering) at Universiti Teknologi Malaysia in 2016. Despite facing academic challenges, she graduated with honors in 2020. During her 2019-2020 internship at TMONE , supervised by her current Credence boss, her potential has shone through, leading to significant project responsibilities. This opportunity paved the way for her career, transitioning from social media data analyst to data engineer at TMONE (2020-2022). Currently, she thrives as the Analytics Delivery lead at Credence.

Technology and Tools Utilized in Credence

For Database /OLAP

PostgreSQL

(2023, November 2). PostgreSQL. https://www.postgresql.org/

druid

(n.d.). Apache Druid │Apache® Druid. https://druid.apache.org/

For Visualization

+ableau

Tableau: Business Intelligence and Analytics Software. (n.d.). Tableau. https://www.tableau.com/

Power BI

Power BI - Data Visualization │Microsoft Power Platform. (n.d.). https://www.microsoft.com/en-us/power-platform/products/power-bi

Metabase

Metabase │ Business intelligence, dashboards, and data Visualization. (n.d.). Metabase │ Business Intelligence, Dashboards, and Data Visualization. https://www.metabase.com/

Superset™

Welcome │ Superset. (n.d.). https://superset.apache.org/

ETL/ELT

Apache Airflow

What is Airflow™? — Airflow documentation. (n.d.). Apache Airflow. (2023, November 2). PostgreSQL. https://www.postgresql.org/

Spark™

Documentation │ Apache spark. (n.d.). Apache Spark™ - Unified Engine for large-scale data analytics. https://spark.apache.org/documentation.html

Programming Language

Phyton

Dnu72. (2021). Phyton logo 01.svg. https://images.app.goo.gl/TDQsbJa4EUi2yU2P8 Web image

SQL

My Tec Bits. (2022, August 21). What Is SQL, And Why Is It Important To Learn It? https://images.app.goo.gl/tBTvMCPRhyrRcRaR7 Web image

1. PostgreSQL handles complex queries, ClickHouse excels in analytics, and Druid powers real-time analytics with sub-second query responses, ideal for time-series data.
2. Tableau, Power BI, Metabase, and Superset excel in data visualization, offering intuitive interfaces and versatility.
3. Airflow orchestrates workflows, while Spark processes vast data for ETL/ELT seamlessly and efficiently.
4. Python excels in general programming, while SQL is vital for database management and querying.

Reflections from Each Group Member

1. Reflection by Nur Hanani Binti Ahmad

In order for me to become a system developer in four years, i will graduate with a Bachelor's in Computer Science, emphasizing languages like Java, C++, or Python. Next, establishing a strong theoretical base for the first two years, then engaging in hands-on learning with projects and internships. I will also specialize in areas like cloud computing or cybersecurity, gaining expertise in tools such as AWS, Docker, or cybersecurity frameworks.

Most importantly, i will develop a portfolio showcasing projects involving system design, database management, and network programming. Not to forget, i need to actively seek internships for practical experience and network with professionals. This approach ensures a well-rounded skill set with hands-on experience, making you well-prepared for a career in system development.

2. Reflection by Abbenisha Ann Michael Benedict

As I embark on my journey to become a system developer, I find comfort in values that will profoundly shape my role. Most importantly, I want to encourage open communication and foster a collaborative environment with my colleagues. This, in turn, will hone my ability to work effectively in teams, which is something I'm eager to improve.

Next, Learning new languages, methodologies, and tools isn't just a challenge; it's an opportunity to enhance my work ethic and keep my skills sharp. Beyond the technical, I envision evolving into a problem solver. System development, with its challenges, demands creativity and persistence.

I aspire to bring a solution-oriented mindset, navigating complexities with resourcefulness. In the next four years, I'll prioritize open communication, thrive in collaborative teamwork, expand my skill set, and evolve into a proficient problem solver. It's not just professional growth; it's a personal commitment to continuous improvement in the world of system development.

3. Reflection by Nur Aina Balqis Binti Mohamad Zaparin

In 4 years, I aim to develop proficiency in system development by enhancing communication, improving skills, gaining expertise, and acquiring practical experience. This journey will result in a skilled and adaptable system developer.

By 2027, I will become a highly skilled and adaptable system developer with diverse skills that will enable me to excel in various project environments.

Some of the key aspects I will focus on during this period include expanding technical skills to develop efficient software systems, evolving into a problem solver through persistence and resourcefulness, developing expertise in machine learning and AI by mastering NLP, computer vision, and deep learning frameworks, integrating practical experience through internships, freelance projects, and open-source contributions, and staying updated on industry advancements through conferences, workshops, and online courses.

4. Reflection by Izzaty Balqis Binti Suhaimi

Throughout the 4-year journey to becoming a successful system developer, I must stay engaged with the related coursework and focus on acquiring a solid understanding of programming languages, data structures, and software development methodologies.

Additionally, seeking internships or entry-level positions to gain practical experience is invaluable. To access more opportunities and valuable insights, one must build a professional network. A great developer is not only proficient in programming languages (C++, Python, Java, or others), computer networks, or cybersecurity, but one also need to develop soft skills such as communication, problem-solving, and teamwork.

Thus, in the rapidly evolving field of technology, a person needs to commit themselves to continuous learning, which would be essential for a successful career as a system developer.

5. Reflection by Kristine Elle Benjamin

Over the next four years, my plan to become a system developer involves active participation in workshops for staying updated on the latest technologies trends. Additionally, I aim to familiarize myself with databases and other tools crucial in system development, enhancing my practical proficiency. Lastly, securing computer science-related internships will provide valuable exposure to real-world projects, aligning with Ms. Qistina's experience. This strategic approach not only showcases skills to potential employers but also opens doors to diverse career opportunities in the field of system development.

Therefore, the key takeaway from the webex meeting is the importance of cultivating an eagerness to learn and explore new things. As the proverb goes, 'Learning is a treasure that will follow its owner everywhere."