SECP1513-04 TECHNOLOGY AND INFORMATION SYSTEM

ASSIGNMENT 3 : SYSTEM DEVELOPMENT AT CREDENCE (TM SUBSIDIARY)

SPEAKER'S NAME : MS. QISTINA BATRISYIA BINTI AZMAN SHAH

LECTURER'S NAME : DR. MUHD IQBAL TARIQ BIN IDRIS

GROUP : CHANT TECH

GROUP MEMBER :

1. MUHAMMAD AIMAN DANISH BIN MUHAMMAD EKHSAN (A23CS0119)
2. MUHAMMAD FAKHRUL RAZZI BIN MD NOOR (A23CS0128)
3. MUHAMMAD AMIR ZAFRI BIN MOHD ADHAR (A23CS0120)
4. MUHAMMAD RIFQI BIN RAZALI (A23CS0136)
5. AHMED ABDELHADI MOHAMED ZEIN (A22EC4002)

DESCRIPTION OF THE SYSTEM DEVELOPMENT

Systems development is the process of defining, designing, testing, and implementing a new software application or program. It could include the internal development of customized systems, the creation of database systems, or the acquisition of third-party-developed software.

Analytics refers to the systematic analysis of data to extract meaningful insights and make informed decisions. It involved examining large sets of data to identify patterns, trends, correlations, and other valuable information. Analytics can also be applied in various fields, including business, finance, healthcare, sports, transportation, and many more.

Some of the Analytics processes are gaining data, data collection, data transformation, analytics and modelling, prediction and visualization, and giving insight into the research.

The data is gained from databases and external data like open source from the government and social media. Then, we proceed to the data collection process where all the data is stored in your database. Next, we proceed to the data transformation process where all the data is going to be transformed using ELT and ETL process. Analytics and Modelling is a process where we need to do some prediction and modelling. The last important process is "Prediction and Visualization" where we create all the data into a visual form so that other people can see and understand it perfectly. Then, it will proceed to give insight, it is divided into three stages strategic, tactical, and operational.

Each of these tasks is divided by their expertise such as business analyst, data analyst, data architect, data engineer, data scientist, and bi developer.

HISTORY OF CREDENCE

Credence was built on 2022 by Telekom Malaysia Berhad, TM because TM felt that clouds and analytics should growth and felt that they should have a company that focus solely on analytics and cloud.

Credence is a service-based company where they compose a team of experts to deliver work or to complete the task for their customers. Credence will provide greater and faster time-to-value by understanding customer internal and external with both of their requirements and challenges.

TECHNOLOGY AND TOOL USE IN CREDENCE'S SYSTEM DEVELOPMENT

<table>
<tr><th>Database/Online Analytical Processing (OLAP)</th><th>Visualization Tools</th><th>Extract, Transform, and Load (ETL)/Extract, Load, and Transform (ELT)</th><th>Programming Language</th></tr>
<tr><td>PostgreSQL</td><td>Tableau</td><td rowspan="2">Airflow</td><td>SQL</td></tr>
<tr><td>ClickHouse</td><td>PowerBI</td><td>Phyton</td></tr>
<tr><td rowspan="2">Druid</td><td>Metabase</td><td rowspan="2">Spark</td><td rowspan="2">Bash Syntax</td></tr>
<tr><td>Superset</td></tr>
</table>

REFLECTION

Fakhrul Razzi: From this talk, I get to learn, how system being developed and what tool and technology used. I also learn my career path and what I need to do for me to prepare myself for work life in the future such as, choose a suitable internship place for my goals so that I can learn things that useful for my future.

Aiman Danish: The talk has given me the real picture of how the real industry work with requirements and skills that required. It also helps me to prepare myself early so that I could meet the requirements that the industry needed in the future. I understand the essential of cloud and analytics in these modern days and the position that I can fulfil if I be in analytics. In the next four years, I will be a system developer by ensuring that I have some experiences related and mastered all the requirement needed flawlessly.

Amir Zafri: This career talk about analytics jobs gives me a clear picture of what analytics is and how it works. It breaks down the process into steps like gaining data, collecting, and transforming it, and using analytics and modelling to make predictions. The part about using data from different sources, like databases and social media, shows how diverse data can be. The text also explains the importance of turning data into visual forms for better understanding. I learn that the goal of analytics is not just analysing data but also creating useful insights for decision-making. The career talk wraps up by introducing different roles in analytics, helping me see the variety of skills needed in this field. Overall, it's a helpful guide for me to understand the basics and applications of analytics. This insightful analytics career talk has equipped me with a comprehensive understanding of data processing, integration, and visualization, leading me to believe that I can become a well-known system developer in the next four years by applying these newfound insights.

Rifqi: My understanding of system development, which entails the definition, design, testing, and implementation of a new software application or program, has changed as a result of this career talk. In addition, I gained a lot of fresh knowledge about data analysis. Gaining data, data collection, data transformation, analytics and modeling, data prediction, and data visualization are a few examples of the processes involved in data analysis. What I enjoy about this session is how the speaker introduced me to a range of software and tools that are necessary for this line of work. Because I can become proficient with those tools and applications sooner, this will tremendously aid in my future preparation. I think I can become a well-known system developer in the next four years because of this new, comprehensive understanding due to this talk.

Ahmed: What I knew about system development in this industrial and my own knowledge about it is that system development is the process of creating, designing, and maintaining software or information systems. It involves planning, analysis, design, implementation, testing, deployment, and maintenance. The goal is to turn an idea into a functional system that meets specific requirements and goals. To be a good system developer in the next four years, learn computer languages like Python or Java really well. Understand how systems work and follow the steps in making computer programs. Get good at solving problems and work with others on projects. Do internships to get real experience. Keep up with what's new in the tech world. Practice communicating and working in a team. Show your work in a portfolio. Connect with people in the field, and always stay curious and keep learning.