SYSTEM DEVELOPMENT @ CREDENCE (TM SUBSIDIARY)

REPORT ON INDUSTRY 2

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Topics discussed:

1. Description of System Development
2. Technology and Tools used in Credence
3. History of Credence
4. Skills Required To Be A Data Engineer

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- **Ahmad Ziyaad bin Abbas A23CS0206**
- **Muhammad Adam bin Razali A23CS0116**
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DESCRIPTION OF SYSTEM DEVELOPMENT

System development life cycle, also known as SDLC is a process that specifically used for an IT projects. This process includes seven phases which are planning, analysis, design and prototyping, software development, software testing, implementation and maintenance. This process break down the project into manageable steps and provides a clear idea about the flow of the projects to the developers and steps required to achieve a successful development. It helps the project managers to have more clarity about their project and what they need to do in a certain period of time according to each phases in SDLC. Not to mention this will also help the managers to reduce the risk of time and resources being wasted in the process of project development. In general, it can be said that any development team from either IT or other industries can apply the SDLC model into their projects and benefit from it.

TECHNOLOGY AND TOOLS

In Credence, they specialized their use of software for system development that includes Database and visualization tools, ETL (extract, transform, load) and programming languages each of which fulfill the needs of designing, developing, and managing the structural and architecture of data they supervised in their databases.

They used paid software such as Tableau, Power BI to turn their data into insightful information by using charts, graphs, reports, and dashboards that can easily be organized and monetize for developing a system.

In monitoring the workflow, Credence used Airflow and Spark to define, schedule, and monitor the flow of working through through some methods such as directed acyclic graphs (DAG's).

Managing, scripting, developing an application and database were solved by Credence for system development by using programming languages such as python, SQL, and Bash Syntax. These tools querying the data, doing data analysis as well as machine learning to improvise their system.

HISTORY OF CREDENCE

On July 6, 2022, Telekom Malaysia Berhad (TM) introduced Credence.
Credence is a brand-new provider of cloud and digital services with the goal of assisting the public sector and businesses in their digital transformation efforts. Credence will offer a range of capabilities, including managed services, cloud advisory, IT landscape migration, SaaS, tech infrastructure, business insights, and analytics. Credence wants to give our clients an exceptional experience. We are the only business that can provide our clients with complete end-to-end solutions, from insights to infrastructure (I2I). Credence unveiled significant alliances with VMware, AWS, and Huawei at the launch, allowing them to provide businesses with a wide selection of solutions that are tailored to their unique growth requirements.

SKILLS REQUIRED TO BE A DATA ENGINEER

Ms. Qistina's experience

Based on the talk that Qistina gave, she explained what skills is needed as a data engineer. Firstly, technical skills is key as a data engineer which means you need to be fluent in programming skills such as MySQL, Python and Bash Syntex. Next, you are reequired to be a team player as projects require strong teamwork cooperation. Lastly, you need to be eager to learn and explore new things as technology and IT is evolving with every second that passes by.

Coding

Based on Robert Preston (2023), the skills that must be required by every data engineer is coding. Coding is an on-demand ability that include in requirement in the field of data engineering. Data engineers are expected to mastered the basic programming language such as C and Phyton. They also ought to expect learning high level programming language such as Java, C++ and Ruby.

REFLECTIONS

Afif - I dream of myself becoming a system developer in the next four years, but only if I take seriously how to improve my academic record and technical proficiency, as well as my soft skills, which will make an employer want to recruit me. I need to get proficient in C++ and MySQL among other software to make my work as a system developer easier. Additionally, the secret to success is consistency and being passionate about what I do.

Adam - In the upcoming 4 years, in order to be a successful system developer, i will develop my programming skills such as C++, python and javascript even further. I will also spend my personal time trying hands-on project that involved me with the real world of working as a system developer.

Afiq - Personally, what can I do to be a good system developer in the next four years is by sharpening and honing my problem solving skills. In addition, I need to enhance my communication skills because I will need to engage with my clients and understand their needs. Lastly, I need to have the ability to learn continuously as the technology is advancing from time to time. So, by having those abilities I can improve what am I lacking and get much experienced in my job as a developer.

Syahmi - In the next four years, I want to work as a system developer as a student studying data engineering. I can see that in order to succeed as a system developer, I'll need to stay up to date with the quick changes in technology and never stop learning new things. I have to keep up with the most recent advancements and trends in system development because technology is developing so quickly. Furthermore, I recognize the significance of refining my technical abilities. This entails honing my programming abilities, especially in C++ and Java, and learning data engineering techniques like database administration, cloud computing, and DevOps procedures.

Ziyaad - I envision myself in the upcoming years of becoming a successful data engineer as I continue improving and sharpen my technical skills such as programming. As for my employability, I will harness my social skills and teamwork skills to unlock my full potential at any workspace I am given. I also wish to land an intenship at a good company that will utilize my capability to the fullest.

REFERENCES

- Preston, M. (2023, September 14). 7 Phases of the System Development Life Cycle Guide. CloudDefense.AI. Retrieved January 8, 2024, from https://www.clouddefense.ai/system-development-life-cycle/
- Preston, R. (2023, March 24). Top 8 Skills You Need To Become a Data Engineer (With Tips). from https://www.indeed.com/career-advice/resumes-cover-letters/data-engineer-skills