System Development @Credence (TM Subsidiary)

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UTM UNIVERSITI TEKNOLOGI MALAYSIA

credence
Transformation Done Right

SYSTEM DEVELOPMENT CREDENCE (TM SUBSIDIARY)

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ACADEMIC REPORT

DESCRIPTION OF SYSTEM DEVELOPMENT

In software engineering and information systems which requires development of systems, the System Development Life Cycle (SDLC) is implemented. SDLC involves 7 stages -planning, analysis, design, development, testing, implementation, and maintenance. According to insights from (Mark Preston, 2023), SDLC is essentially a project management model. It defines the stages of a project, from an initial idea into an implementation and further maintenance. (Robert Preston, 2023) state that SDLC helps users create high quality systems that satisfy customer's expectations and requirements.

HISTORY OF CREDENCE

Credence established by Telekom Malaysia Berhad (TM) on 6 July 2022 with the purpose to help customers expand their business in digital transformation sector. They focus on analytics and cloud services to help their customer in solving multiple technological problems. Credence has created many career opportunities specialized in data analysis and system development. They also provide induction training for those who are ambitious to become a member of Credence's family.

TECHNOLOGIES APPLIED IN SYSTEM DEVELOPMENT

Credence uses online analytical processing (OLAP) technology to derive insights through data analysis. According to a definition provided in (Chaudhuri & Dayal, 1997), OLAP technology extracts data from various relational data sets and tables, and reorganise it into a multidimensional format, which enables the knowledge workers (executive, manager, analyst) to analyse the process faster and insightful. Additionally, Credence implements Extraction, Loading and Transformation (ELT) technology to oversee and monitor workflows, merge data from multiple sources, and subsequently push it into database. (Zvonarev et al., 2023), has demonstrated that ELT technology is a method for transferring data from its source to the data warehouse. The process involves gathering data from various external sources, and loading it into a designated data warehouse, and then transforming it to meet the clients' requirements. Besides, Credence utilise cloud computing such as Microsoft Azure and VMware to optimise their infrastructure. The usage of combination of technologies at Credence enhances efficiency, facilitates insightful data analysis, and optimises system development processes.

TOOLS APPLIED IN SYSTEM DEVELOPMENT

Credence focus on data analytics, which consist of four main processes, which are data collection, data transformation, analytics and modelling, and prediction and visualization. For database managing, Credence apply PostgreSQL, ClickHouse and Druid. In data visualization, Credence utilize open source tools like Metabase, Superset and PowerBI. To manage the workflow and data, Credence mainly use Airflow System. It's also worth mentioning that SQL and Python are the most essential programming languages that required in Credence's daily works.

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REFLECTION

HOW YOU WILL BE A SYSTEM DEVELOPER IN THE NEXT FOUR YEARS?

BRENDAN CHIA YAN FEI

" I will practise my communication skills in order to communicate efficiently with my clients and colleagues, technicians, and others. Besides, I will learn how to work in a team. I'm focused on sharpening my problem-solving skills to be more effective in handling challenges. In addition, i will learn how to manage time effectively in order to be efficient in my work. I should have strong adaptabiliy too. The field of software development is constantly changing so it is important to adapt to new technologies."

LEE YIN SHEN

" Learning is a lifelong journey. I will keep learning and practicing what I learn from lecture in order to enhance my knowledge and skill. Moreover, for the preparation to enroll in my future career, I will keep strengthening my communication skill by building self-confidence through practice and preparation. This is because I believe having a great communication skill help me perform well in teamworking. Besides, as what Ms. Qistina said, since the rapid development of technology, I will always pay attention to the latest technology and apply it in my task in order to keep on technology trend. "

LAU YAN KAI

A wiseman once said, "a journey of a thousand miles begins with a single step". My goal over the next four year is to progressively improve my skills and knowledge by actively participating in coursework, projects, and even internship opportunity. I will continue to stay informed of the emerging technologies and trends. Furthermore, I would continuously enhance my communication and problem-solving skills. There will be challenges and obstacles that I will have to overcome. I will seek guidance from lecturers and friends, but I will not be afraid to ask for help when I need it. I know that this journey will not be easy, but I am excited and ready to embrace all that it has to offer.

NEO LI XIN

Till this day, I always find learning tedious and boring, but getting left behind felt even worse. To succeed as a system developer, I learnt that we must be committed to pursue greater heights, to never stop learning because nothing remains the same, especially the rapid development of technology surrounding us. No matter our age, we should be constantly striving to learn more and keep updating our skills to adapt ourselves with the modern age. 'Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do.' - Pele. "

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PRIMARY SOURCES

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