Introduction

On October 28, data engineer Mr. Mohamad Zamarul Akmal Mohd Husin and data analyst Mr. Saharulnizam Shobri from PPG shared with us their experience in their positions. They carefully described to us the nature of the specific positions and the basics we need to master. They also told us how the knowledge they learned in school can be applied in work, such as PPG Datalake Architecture. In addition, some senior students who are interviewing at PPG also shared their experiences and thoughts during the talk with us.

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What did DE do?

Data Validation - process of checking data for accuracy and to predefined rules and standards within a data pipeline.

Unit Testing - testing individual components or units of code within a data pipeline to make sure they work correctly in isolation.

Documentation preparation - describing data pipelines, code, data structures, configurations, and procedures in a way.

Pipeline development - building a data conveyor belt

Pipeline monitoring - making sure it's not stuck or broken, and fixing any problems to ensure a constant and reliable flow of data.

Data Transformation / integration - changing the shape of data to make it useful and combining data from different sources to work together.

https://ms.wikipedia.org/wiki/PPG_Industries

PPG

Industry Talk 1 (by PPG)

Way Forward

Master Data Engineering Tools:
Learn essential data engineering tools and technologies like ETL (Extract, Transform, Load) processes, and cloud-based data platforms like Azure.

Continuous Learning:
Stay updated with industry trends and emerging technologies by attending workshops, webinars, and online courses.

Important Atitude

- Curious
- Adaptable
- Open-minded
- Eagerness to learn
- Positive mindset

Fundamental knowledge

Programming skills - Proficiency in SQL is crucial for data querying and manipulation, as it's the standard language for working with databases.

Database concept and design - A data dictionary is a document that explains what each piece of data means, how it's structured, and where it's used in a database or system.

Data Modeling - creating a blueprint for your data. It's a structured way of defining how your data is organized

Data Visualization - turning data into pictures or charts. It's a way to make complex data easier to understand by representing it graphically

Executive Summary

The future of data engineering work appears promising, with continuous advancements in technology and methodologies. Organizations that invest in data engineering are expected to gain a competitive edge by harnessing the power of data for strategic decision-making and innovation.

In conclusion, the PPG Industry Talk shed light on the essential role data engineering plays in the data-driven world. It emphasized the significance of data quality, scalability, and technology adoption while highlighting the potential for automation and data-driven growth. As organizations continue to adapt to this evolving landscape, they will find data engineering to be a cornerstone for achieving their business objectives.

REFLECTION

Through this industry talk, I understood the nature of the work of a data engineer and the skills required. In addition, this talk also told us what the market demand is and allowed us to find the general direction of development. A career in ICT, particularly as a data engineer, is indispensable for thriving in today's industries. These experts are the architects of data, enabling organizations to unlock the potential of information, fostering informed decision-making, catalyzing growth, and optimizing operational efficiency. In essence, data serves as the cornerstone of all technology-driven sectors, underpinning their success and innovation.

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