



INDUSTRY TALK 1

CAREER DEVELOPMENT BY

HABIB & PPG

INTRODUCTION

UTM has invited GetMeHired & PPG who have given us a once-in-a-lifetime opportunity to meet Mr. Mohamad Zamarul Akmal Mohd Husin, a data engineer specialist and Mr. Saharulnizam Shobri, a data engineer analyst from PPG as well as Mr Habib from GetMeHired to introduce to us the wonders of being a data engineer. According to Mr. Habib, we got to learned the technique of writing an infographic resume and using a CV. Other than that, based on the talk given by alumni representatives from PPG, they shared their advice and wisdom about the necessary basic skills and qualifications required for the job at hand. Besides that, we also get to hear about other seniors who are interns currently interviewing with PPG about their personal experiences and the journey they had to take to get to where they are now. Mainly, one key point that they all commonly mentioned is that the lessons we learn at university can be utilized in real-world situations to let us seek out new solutions and approach for us to solve any current or new unknown issues.



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CONTENTS



From PPG:

WHAT DID THEY DO AS A DATA ENGINEER??



DATA VALIDATION - involves a series of checks and procedures to verify the integrity and quality of data and prevent errors.

UNIT TESTING - identifies issues and facilitates easier debugging by pinpointing the specific unit that is not functioning correctly.

DOCUMENTATION PREPARATION - creating and organizing documentation that supports various aspects of data-related systems and projects.

Pipeline Development-iterative process that ensure that the data is readily available for analysis and decision-making.

Pipeline Monitoring-identify and prevent issues in data pipelines.

Data Transformation/Integration -manipulating and merging data from various sources to create a unified and useful dataset for analysis or other purposes.

FUNDAMENTAL KNOWLEDGE



- **Programming Skills**- to manage and manipulate data in relational databases and data warehouses by using coding languages such as Python , Java and SQL
- **Database Concepts & Designs** -build and manage databases that ensures data integrity, accessibility, and performance.
- **Data Modelling** -structuring and organizing data to create a conceptual representation of how data should be stored, accessed, and managed within a database or system
- **Data Visualisation** -representing data in graphical or visual formats.

EXECUTIVE SUMMARY

During the talk from GetMeHired, we acquired the knowledge of writing an infographic resume and using a CV. These techniques are crucial because it help us to write more about ourselves in a more professional matter and let the employer know our talents and skills. As an effect, it helps increase the likelihood on us landing on a job offer and position in a desired company.

To sum it all up from the PPG talk, PPG has helped us gain a much better understanding and insights in the field of data engineering from notable and valuable information presented by them. It also ensures the faith that future generations can be inspired by continuous advancements of technologies and investments from mega-corporations to keep having breakthroughs in new discoveries in the field of data engineering which is still expanding. Besides that, it also enables businesses such as PPG to harness the power of data for strategic decision-making and innovation such as artificial intelligence, machine learning, and automation which can significantly influence how data engineering operates.

SKILLS AND QUALIFICATIONS

SQL Skills -> writing and executing SQL queries by creating database structures, performing data analysis, and managing database security.

Visualization Skills -> create effective and insightful visual representations of data.

ATTITUDES & MINDSET



- Eagerness to learn
- Curious
- Adaptable
- Open-minded attitude

Positive Mindset

- Optimism
- Self Belief
- Resilience

From GetMeHired:

JOB APPLICATION FLOW

1. IDENTIFY
2. RESEARCH
3. PREPARE
4. APPLY

COMMON MISTAKES

- Contain yourself from exploring
- Apply for jobs after you study
- Didn't improvise communication
- Didn't join a lot of activity

3 BIG DECISIONS

- What Job?
- Where to Stay?
- Who is your life partner & best friend?

WAY FORWARD

GetMeHired

- Utilized their methods step by step to help clients or fresh graduates present themselves better to increase chances of landing a job offer.

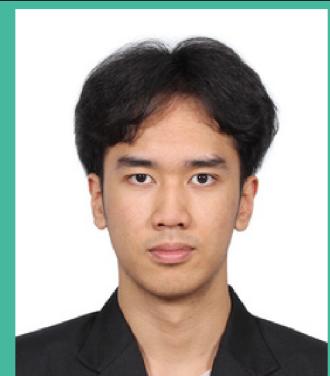
PPG

- Ongoing skill development: Keep abreast of industry advancements and new technologies by participating in workshops, webinars, and online courses.
- Proficient in key data engineering toolsets: Gain expertise in data engineering toolsets and technologies such as Data Integration Platforms like Apache Airflow as well as Data Visualization and Reporting Tools like Power BI and QlikView.

REFLECTION

Throughout this talk, we get to familiarize oneself about the responsibilities and qualifications that are essential in every data engineer. Not only that, data engineering is the backbone of any data-driven organization. It lays the foundation for collecting, transforming, storing, and processing data for analysis and decision-making. Without robust data engineering, the quality and usability of data for insights would be compromised. Furthermore, its never ending innovation and role in ensuring data integrity, and contribution to strategic decision-making make it an indispensable part of today's data-centric world.

Simultaneously, we need to maintain a curious and open minded attitude to not only aid us in persisting in our goals but also to explore and acquire new knowledge as well as to face new obstacles. In addition, we should also not be afraid of making mistakes or asking questions as it is a learning process and encourages more room for personal growth with the lesson engraved in one's mind to prevent repeating the same mistakes. On the other hand, we should all be proactive in joining activities in our free time because some team based activities encourages us to improvise our communication skills and leadership skills which can also help us bond more fondly with others easily. Moreover, we should also not contain ourselves from exploring because we often find ourselves in our own comfort zone and not wanting to try new things which cause to inhibit our potentials and interests in a variety of fields.



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Power BI

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