

Petronas introduce us the statement of purpose, “**A progressive energy and solutions partner enriching lives for a sustainable future**” shows that they continually explore energy sources beyond oil and gas, leveraging advancements in computer science and data engineering to drive innovation in the energy industry. Their growth is limitless, and they are committed to expanding their reach and seeking out new energy solutions. As a solutions partner, they do more than just provide energy but they also collaborate with their clients to solve problems and create lasting partnerships. Petronas are dedicated to enriching lives, actively engaging in community service, education sponsorships, and initiatives that give back to society. By prioritizing sustainability, they ensure that the benefits of today’s efforts will be enjoyed by future generations, leaving a meaningful legacy for the future. We can be part of Petronas by joining the Petronas Digital Young Graduate Program. They are looking for young talents with a passion for learning, a keen sense of our teamwork and diversity and have a strong desire to make a positive contribution to the energy industry and communities around it through digital innovations. Currently, YGP offers placements for future Software Engineers, Data Engineers and Data Scientists.

## SOFTWARE ENGINEER

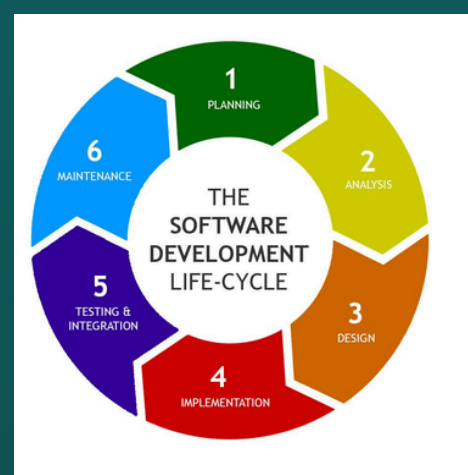
### WHY CHOOSE SOFTWARE ENGINEER?

- software development jobs are anticipate to increase up to 22% from 2020-2030
- one of the highest paying profession
- software development will be based on the need to be versatile



### SOFTWARE ENGINEER CRITERIA

- Understand the fundamentals of how computer works
- Understand hardware and hardware architecture
- Applies computer science and engineering concepts
- Use programming languages, frameworks, database, etc
- Understand software fundamentals



## DATA ENGINEER

- ➔ The practice designing and building systems for collecting, storing and analyzing data at a scale

Provide data integration, data ETL/ELT between multiple data layers in a standardize manner



PROGRAMMING SKILLS AND PRODUCTIVITY SKILLS ARE ONE OF THE IMPORTANT SKILLS NEEDED !

## DATA SCIENTIST

- hone **analytical skills** through holistic learning covering all aspects of Data Science
- talents will learn all the programme structure including :
  - Customised In-house Training
  - Access to Coursera
  - Outside-in Perspective
  - Collaboration with Global Tech & Consulting Companies
  - On-project Learning

### Capability Development Programs

1. Data Science Academy
2. Digital Academy
3. PETRONAS Learning Centre
4. In-house DS dept. Trainings
5. PETRONAS Internal Expert Series ( PIES)

## DATA ANALYST

Talents will get through Data Transportation Activities and identify data to be able the Data modelling, ETL and Data Warehouse happens in string

- expose to stakeholder especially business
- implement other domain of Petronas such as Chemical and Plant Data

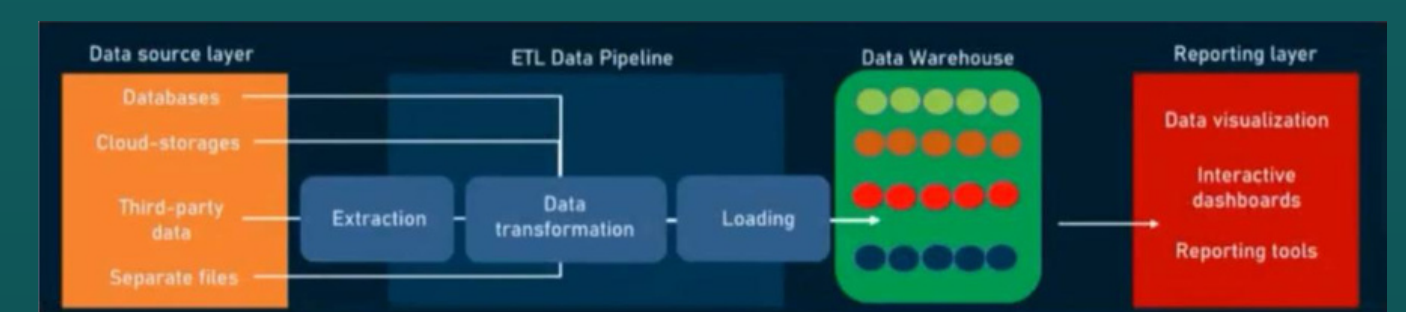
Data Analyst plays a critical role in ensuring business through data insights

- Data Analyst involve in :

- Business Data Acquisition
- Understanding Data & Source
- Engage communicate data
- Team-up with Data Engineer in Extract, Transform , Load (ETL)
- Verify Data enabled in Data Warehouse



Data Analyst will be performing Data Testing with business such as the execution in picture below



Petronas is committed to innovation, sustainability, and long-term partnerships, emphasizing the importance of developing future talent through various programs such as the Data Science Academy and collaborations with global tech companies. They focus on high-demand roles like software engineering, data science and data engineering for providing extensive training to enhance skills in programming, data integration and analytics. With a strong emphasis on continuous learning, work-life balance and flexible hybrid work models. Petronas fosters an inclusive environment for employees to grow in tech fields, including AI, machine learning and data science. Their approach not only addresses industry needs but also promotes community development and sustainability for the future.

## OUR REFLECTIONS



For me, the insights that I gained in the PETRONAS talk are that we need to understand thoroughly that ICT take part in understanding customers' desires, trends and patterns in the market. With that information, industries can create innovations based on those criteria. This ensure the industry businesses are running smoothly without any losses. Also, to be an outstanding data engineer, software engineer or any other occupation, one is requires to have to have skills like analytical thinking as well as problem solving skills. Those skill set enable individuals to break down complex issues, identify patterns, and devise effective solutions, fostering informed decision-making and adaptability across various challenges. All in all, this talk teaches me that ICT jobs are vital in ensuring growth in business. -mohamad farhan



Things that I have learnt a lot throughout the talk is that it is crucial to understand the domain-specific problems in depth to tailor technology solutions that genuinely add value. More on that, getting knowledge about specific career might widen your knowledge and improve your skills in understanding logic especially in technology and system like how system is conducts and data transportation are different in every work. It's been rewarding to observe and understand deeply how machine learning algorithms can predict failures before we execute it. In the most honourable opinion, talk in PETRONAS has given me a lot of new different views about computing and industry in coding which is I will conduct it myself in the future. -Nur Anisah solehah



The industry talk by PETRONAS really gave me deep insight into the kind of innovative attitude the company has toward the future of energy. One thing that came out clearly is their commitment to various sources of energy, other than oil and gas, aided by the latest developments in computer science and data engineering to optimize their operations. The talk indeed showed how PETRONAS operates with no borders, seeking newer ways of growth and energy solutions constantly, making it flexible in a world of dynamically changing energy scenarios.

-Allisya Maisarah



During the Pertonas industry talk, I learned the importance of learning the developing diverse skills, collaboration, and pursuing real-world experience in my chosen field. As I am a computer science student, I need to focus on areas such as data science, software engineering and AI will pave the way for success in the technology industry.

-Mindy Ng



**MOHAMAD FARHAN BIN MOHAMAD HARIRI**  
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