FAKULTI MALAYSIA-JAPAN INTERNATIONAL INSTITUDE

OF TECHNOLOGY

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SEC15

INDUSTRIAL TALK 2

TAJUK: SYSTEM DEVELOPMENT @CREDENCE(TM SUBSIDIARY)

NAMA DAN KOD KURSUS: TEKNOLOGI DAN SISTEM MAKLUMAT (SECP1513)

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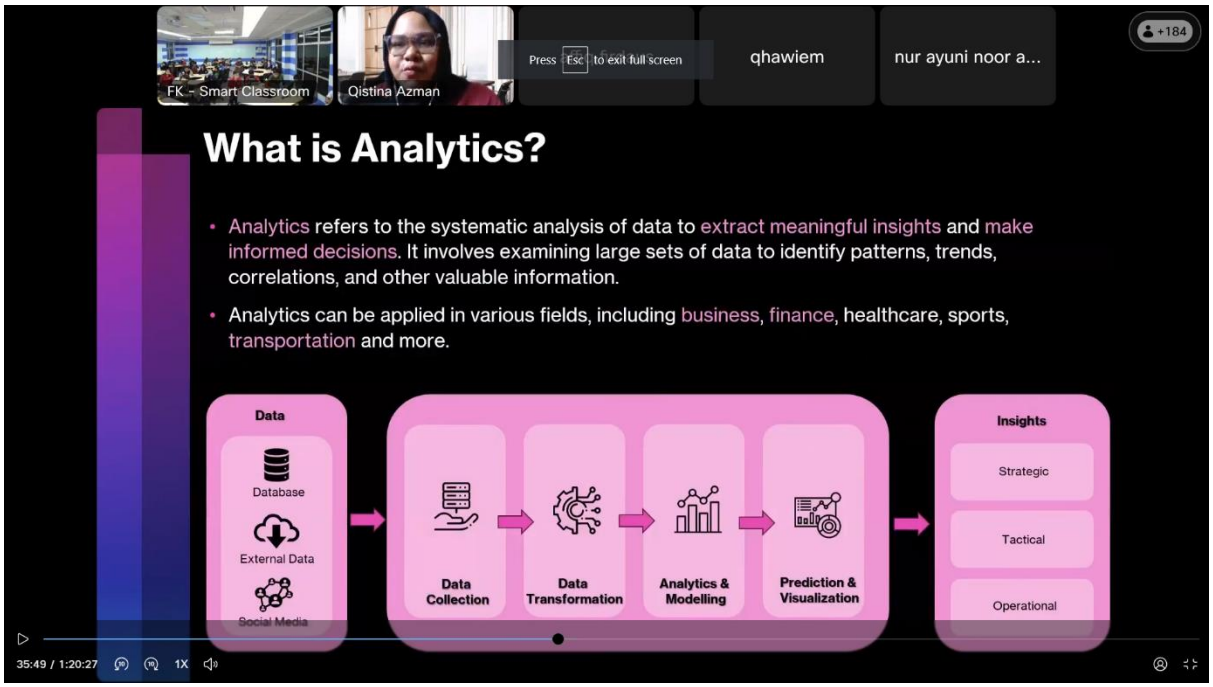
Introduction

On 28th December 2023 ,Universiti Teknologi Malaysia held an Industrial Talk on System development in collaboration with Credence (TM Subsidiary). The sharing session was conducted by Ms. Qistina Batrisyia Binti Azman Shah, a former UTM student ,who is now working in Analytics Delivery ,AI Operation in Credence .It was held for 2 hours from 2.30pm to 4.30pm online via Webex. This report provides a comprehensive overview of Ms. Christina's insightful talk on system development and analytics at Credence. Ms. Christina, a seasoned professional in computer science data engineering, shared valuable insights into the dynamic field and her experiences at Credence.Credence was built because TELEKOM Malaysia finds that analytics and cloud is crucial.It a service based company where they are comprised of a team of experts to deliver work to serve the customers needs whether internally of externally.

What is Analytics

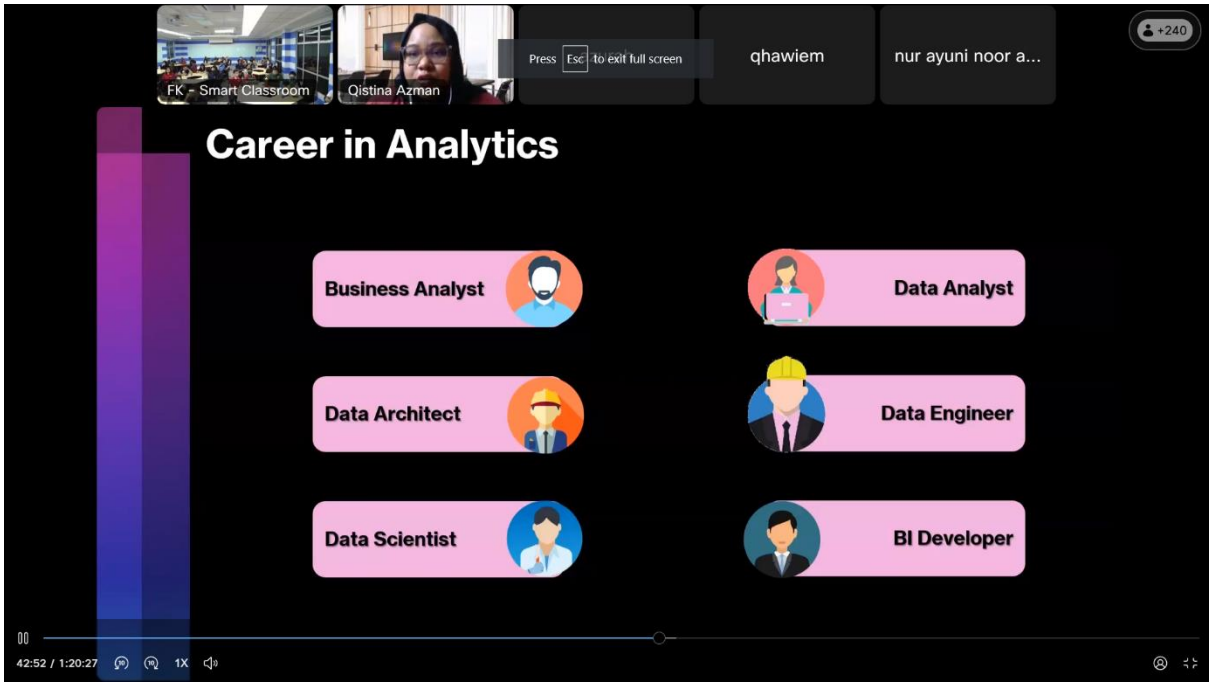
Analytics refers to the systematic analysis of data to extract meaningful insights and to create meaningful insights and make informed decisions. It involves examining large sets of patterns, trends, correlation and other valuable information. This type of technology can be applied towards various type of fields such as business, finance, healthcare, sports, transportation and more.



The following are the fundamentals of analytics. Firstly, the data is analysed. There persists of different type of sources such as structured data or external data such as open sources data from government data, social media data and weather data. These data will be collected and transformed through ELT or ETL. From there, there will be analytics and modelling. Sometimes projects need prediction and create a model on that specific topic. Lastly, prediction and visualisation. This is the process where it will be modelled to be used by consumers so that it can be read easily keeping in mind that the data must be meaningful. From there, there will be insights where each process will depend on the stakeholder.

Career Paths in Analytics

Ms Christina started her journey as a data engineer through several years in order to become proficient in her career. Her hard work exemplifies the and growth opportunities present in this dynamic field.



Based on the slide, there are several career path that persists in this line work.

1. Business analyst
   The role of a business analyst is to meet with customers and gain all the info needed for the project to get going and send his findings to the technical team.

2. Data analyst
   The line of work of a data analyst is to analyse data and findings given by other teams. This particular line of work needs high mastery in coding languages such as SQL or Python skills.

3. Data architect
   Data architect are usually the ones who will decide how the project is going to take course such as determining the type of database to be used or the type of visualisation they will be approaching.

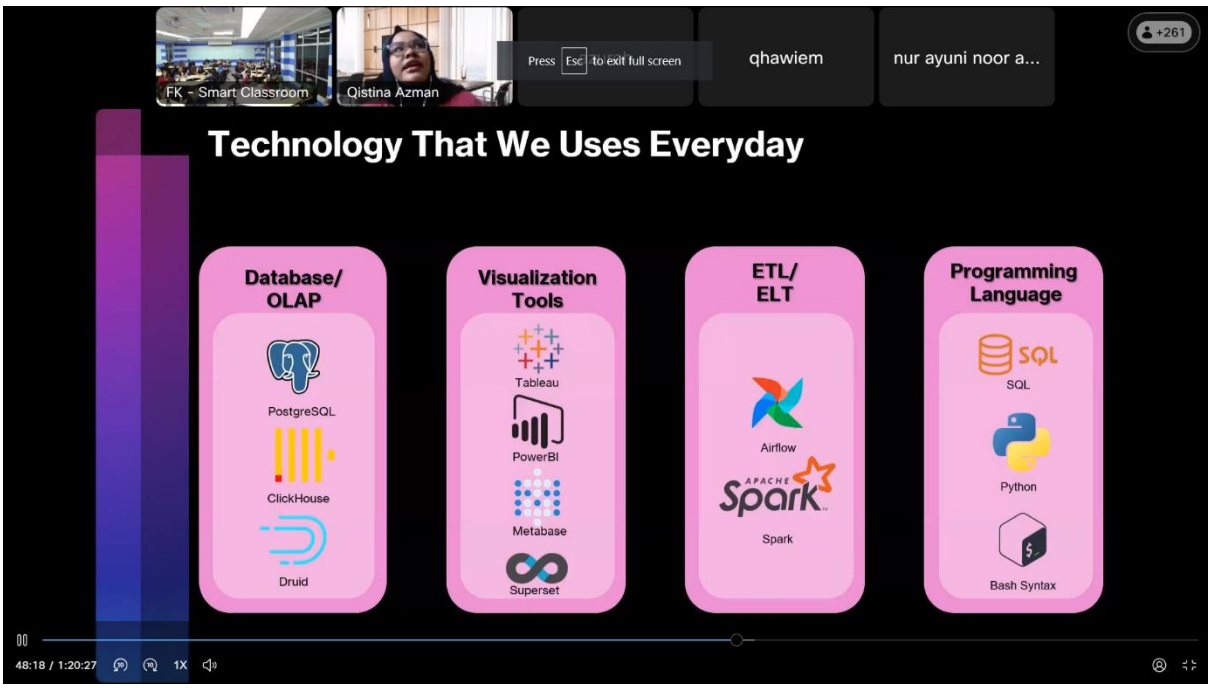
4. Data engineer
   Data engineers will be the ones who gathers all types of data and retrieving data from the customers and prepare it to be prepared for data analyst to analyze the data retrieved. They also require to have high mastery in coding skills.

5. Data Scientist
   They will do findings and studies in the field to find a new type of technology and see whether it is compatible with the operation.
6. BI Developer
   BI Developers focuses on visualisation and use constructed data to present to stakeholders. They are the one who does the modelling of the data to make it meaningful and understandable for the stakeholders .

<u>Type of tech used in Credence</u>

The technological landscape at Credence is characterized by the use of robust tools and platforms. For example;

1. Database/OLAP- PostgreSql, Clickhouse and Druid
2. Visualisation tools -Tableau, Metabase, Superset, Power bi
3. ELT/ETL-airflow, spark
4. Programming Language-SQL, Python ,Bash syntax



Workplace culture in Credence

Credence fosters a vibrant workplace culture that encourages continuous learning and development.

1. Open Communication
   As the company is small, the community there is very close knitted. Sharing insights are common there and they provide guidance for their employees.
2. Continuous learning and development
   Employees are given the opportunity to take certificates ,provides free E-Learning and the open communication environment encourages employees to further understand their co workers by seeing things from their perspective.
3. Empowerment and Autonomy

   The management there is supportive and trustful. They will give chances to their employees to handle their own project with no interference or micromanaging .

4. Celebration of success
   When a project is a success or the employees show a good performance ,they are celebrated and gifted with a bonus.

REFLECTION

This talk opened my eyes on how diverse the career in analytics sector is, it made me realised how important it is to know your own strengths and weakness even when striving for same career since each sub-career is vastly different.

The visit was informative because it taught many things relating to the tasks of different jobs; how teams corresponds to each other in other to succeed in a project and what tools that are use in the process and more. It serves as good experience and knowledge for the students to understand more deeply.

Previously, I thought that the field of data engineering was merely collecting data and analyse it. But now, I see that the field is more spread out and has a lot of different uses throughout various different fields and that they are applicable to real life situations more than I thought.