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Kelompok 4 (Big Three)

INSTRUCTIONS
PR merupakan tugas INDIVIDUAL.

1. What is the most common data engineer's methodology? And please explain why they use that methodology.
2. Why is python called Object-Oriented Language?

Kerjakan PR dalam bentuk MS Words (doc), dan kumpulkan dalam bentuk PDF. Setelah itu, upload PR ini ke dalam Google Classroom **paling lambat hari Minggu, jam 11.59 malam WIB**. Penalti kalau mengumpulkan PR lebih dari tenggat waktu yang telah ditentukan adalah nilai yang kosong (0).

SOLUTIONS
1. What is the most common data engineer's methodology? And please explain why they use that methodology.
Basically a Data Engineer has responsibilities for Architecture design, Development of data related instruments/instances, Data pipeline maintenance/testing, Machine learning algorithm deployment, Manage data and meta-data, Provide data-access tools, Track pipeline stability. Most of Data Engineer workflow are using with ETL (extract, transform, and load) paradigm to collect data from other source, transform the data to as business requirements, and load the transformed data to data warehouse/data lake so they could be consumed by user/data analyst/data scientist. Data engineer needs most of all ETL process are automated because when scale of data is increased, data engineer can not keep up with all ETL process if they do it manually.

2. Why is python called Object-Oriented Language?
Python has concepts of class and object as well. This concept has four keys concept programming are encapsulation, abstraction, inheritance, and polymorphism. In encapsulation we can binding/wrapping data and method in single unit. In class, we can access specifiers in publicly or privately, i.e. we make key properties become private so it can not accessed by other but people can access method of that object because these methods are for public. This behavior lead us to second key concept, abstraction, that simplify the complexity of what happen behind in a complex method. Inheritance concept makes code are reusable because attribute and behavior can be passed down from one class/object (parent) to other class/object (children). In polymorphism, it means having many forms such as method overloading and method overriding.