3. A paragraph on what PaaS, SaaS and IaaS are and the differences between them.

PaaS, Platform as a Service.Usually for developers use, build own applications. For example, databricks.

SaaS, Software as a Service. When already have a software for directly user, usually it is like a web page, for example, Gmail. It enables organizations to forego unnecessary downloads and program installations

IaaS, Infrastructure as a Service, also known as cloud infrastructure services, offer cloud-based alternatives to on-premise, physical infrastructure to end users. A cloud provider provide with virtual machines, this enables businesses to acquire resources as needed rather than incurring the higher cost of having to purchase and maintain hardware.

In general, we can simplify their differences as follows:

- IaaS provides the computing, simply IaaS provides the virtual machine;
- PaaS provides the underlying software. For example, RDB, big data services;
- SaaS provides services. For example, you need a financial service, netbook, etc.

4. A paragraph on the differences between ETL and ELT. Also, list the pros and cons of each in a chart. And specify when you'll use which.

The difference between the terms ETL and ELT is related to the order in which the processes occur. Each of these methods is suitable for different situations.
ETL is used to describe the process of extracting, transforming, and loading data from the source to the destination. ETL is the most important part of building a data warehouse, where the user extracts the required data from the source, cleans the data, and finally loads the data into the data warehouse according to a pre-defined data warehouse model.

ELT is only responsible for providing graphical interface to design business rules. The whole process of data processing flows between the target and source databases, and ELT coordinates the relevant database systems to execute the related applications, and the data processing process can be executed either at the source database side or at the target data warehouse side (mainly depending on the architecture design and data properties of the system). When the ETL process needs to be more efficient, it can be achieved by tuning the relevant databases or changing the server that performs the processing.

ETL	ELT
Longer time	High Speed
Onsite will need frequent maintenance	Low-Maintenance
Slower Loading	Quicker Loading
Well-developed	Less used
More safer for sensitive data	Less safer for sensitive data

After all, ETL is more suitable when facing sensitive data or needing higher fault tolerance; while ELT is flexible enough to directly retrieve sources from the data lake, which is more adaptable to the current complex and changing market environment.