What is ETL?

Extract, Transform, and Load is a Process of data integration, which combines data from multiple data sources into one single storage. This storage cabe can be data warehuse data lake, data mark.

What is ELT?

Extract, Load, and Tranform is a type of data integration process in which we extract and load the data into data ~~storage~~ storage and then transforming it. IN thB we use the target storage system to transform the data.

3 Tier Architecture in Data Engineering

1) <u>Bottom Layer</u>:- It is database storage layer which is used to st retrive and manage data. It include data marts, data warehouse e

2) <u>Middle Layer</u>:- This is OLA or OLTP layer which handles the processsir of data accordin to business needs.

3) <u>Top Tier</u>:- Its the front-end tools or Presentation lay that is used to interact with system. This tier provide reports, analysis and data mining.

ETL Tools

Talend: A ETL tool that offers vast features, which include data profiling, data quality, and data governance. It allows data from different sources i.e. cloud based system Azure, Aws.

Apache Nifi:- A open source ETL tool that can design and automate data flow between systems. It's a drag and drop user interface. Also support variety of data sources.

Informatica Power Center: A commercial ETL tool that offers a scalable high performance data integration. Also supports variety of sources and advance tools.