EDW - Enterprise Data Warehouse

Different Data Sources either generate a structure data (OLTP, Enterprise applications, Third-party) or unstructured data (Web apps, others).

To move these data to EDW layer we may need to use ETL (Informatics or SSIS) tool (for structured data) which is going to connect to these data sources, extract the data, transform it based on our business logic and load it ti our data warehouse.

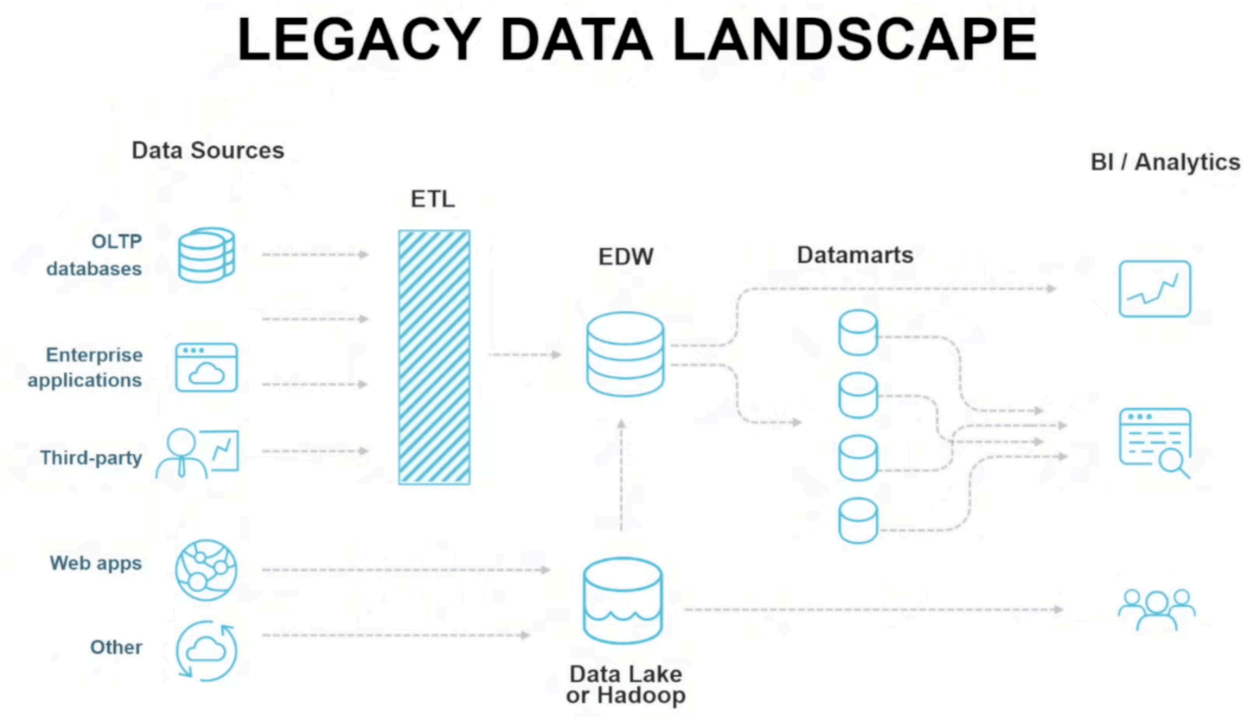
To move the unstructured data to EDW, first we need store in Data Lake (AWS S3, Azure Blob, or any Hadoop system). Convert this unstructured data to structured data and then move it to EDW layer.

In terms of Dataware houses (EDW), we can use technologies tools like Oracle SQL, PostgreSql, Terra-data etc. which will help us to build our Dataware house.

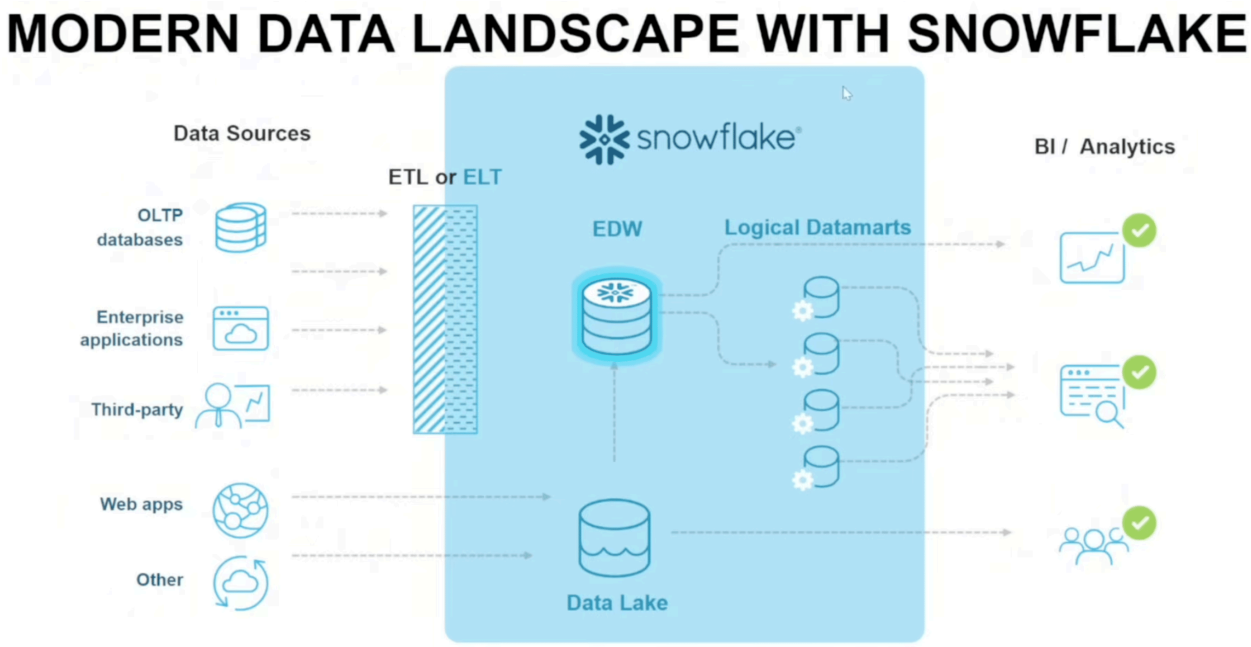
Once we have our Dataware house, we may need to create different Data-marts based on different use cases, with the help of Oracle SQL, PostgreSql or Terra-data etc.

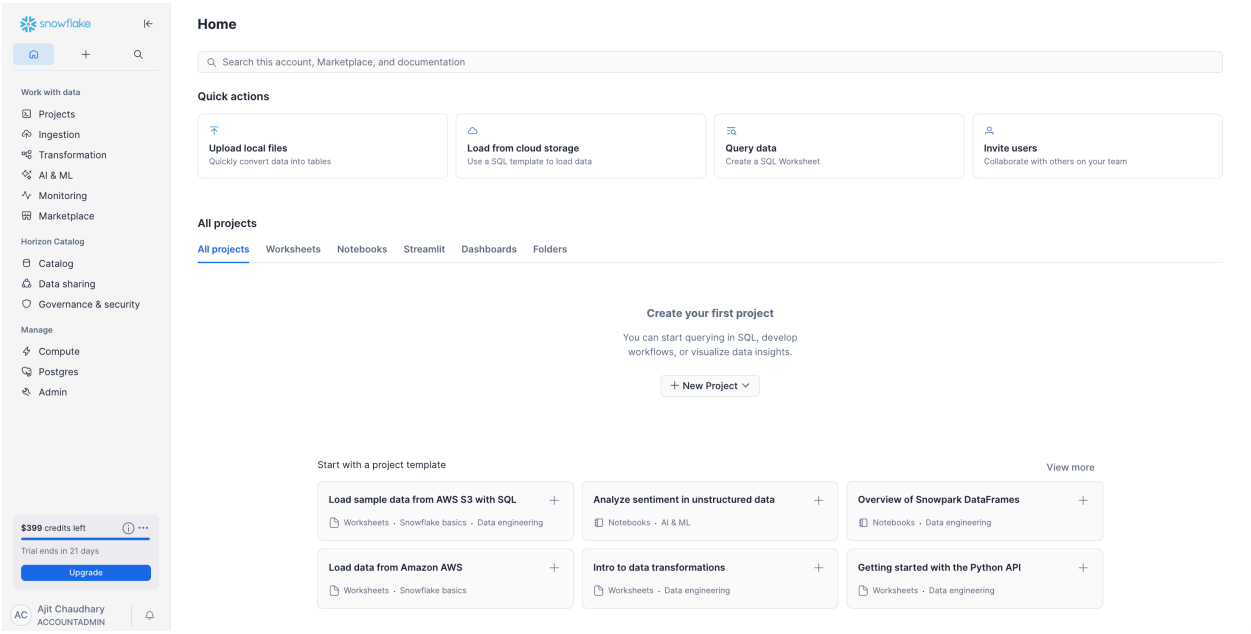
Once we have data in our Data-marts, we can use BI or Analytics tools to run the reporting or machine learning algorithms, either from EDW, Datamarts or Data-lake to start out machine learning.

From data source to BI/Analytics, we are using multiple tools and technologies to orchestrate our data pipeline. Due to this there could be multiple failure points and there is always cost associated with that.



Now with the Snowflake, multiple things are done inside the Snowflake itself compared to the Legacy system. Most of the things are under the Snowflake umbrella, so incase of any failure, we only have to focus on Snowflake components.





Different roles are assigned to different users. "Account-admin" is the super role.

To execute any SQL statement to Snowflake we need a warehouse. Before executing any SQL, we need to select the respective warehouse and role which should have access to the objects.