Type of Data

Characteristics	Structured	Semi-structured	Unstructured
Description	It is a Tabular data that is represented by columns and rows in a database	Data is not in the form of relational database of rows and columns but still has a structure to it	Not organised in a predefined manner or does not have a predefined data model.
Scalability	Very difficult to create DB schema	Scaling is simpler than structured data	Highly scalable
Sample Data Format	1. Relational Databases	1. XML/JSON data 2. Email 3. Web pages 4. Tweets organised by hashtags 5. Folders organised by title	1. Audio 2. Video 3. Image 4. Speech 5. Natural language 6. Documents
Data Integration Strategy	**ETL** ETL pairs well with relational data warehouses since they require data transformations to enforce strict schema and data quality before loading to the datastore.	**ETL** **ELT enables** faster loading time and can process large volume of data quickly. Also analysts can decide prefered time for anlaysis	**ELT** ELT enables faster loading time and can process large volume of data quickly.
Data Warehouse Tools	1. Redshift 2. BigQuery 3. Snowflake 4. IBMdb2 5. PostgerSQL	1. BigQuery 2. Azure Synapse Analytics 3. Snowflake	1. Hadoop 2. MongoDB