

***DATA ENGINEERING***

***TASK-03***

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***Can a database be used as DWH?***

Yes, a database can be used as a data warehouse (DWH), depending on the requirements and needs of the organization.

A dedicated data warehouse platform, such as Microsoft Azure Synapse Analytics, Amazon Redshift or Snowflake, can provide more advanced features and capabilities for data warehousing, it is possible to use a database as a data warehouse.

***Major differences between structured and Un-structured data.***

Structured and unstructured data refer to two different types of data based on how the data is organized and stored.

The main differences between structured and unstructured data can be summarized as follows:

* Structured data is organized in a specific format with a well-defined schema, while unstructured data does not have a specific format or schema.
* Structured data is typically stored in a database and can be easily accessed and queried using a query language, while unstructured data is often stored in a data lake or NoSQL database and requires advanced techniques to extract insights and meaning.
* Structured data can be easily categorized and grouped, while unstructured data requires advanced techniques such as NLP and machine learning to extract insights and meaning.
* Structured data is typically generated by computer systems, while unstructured data is often generated by humans.

***What are the duties of a data engineer? (high-level)***

A data engineer is responsible for designing, building, and maintaining the infrastructure and tools required for storing, processing, and analyzing data.

Some of the high-level duties of a data engineer include:

* Data Pipeline Development
* Data Warehousing
* Data Integration
* Infrastructure Management
* Performance Optimization
* Security and Compliance
* Data Analytics Support
* Data Quality
* Documentation and Communication
* Automation
* Emerging Technologies

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