

1. Can a database be used as DWH?

Ans. No, database can't be used as a data warehouse because:

- Database is designed to capture and record data, however, Data warehouse is designed for analytical process.
- In database, data stored in tables with rows and columns, but in data warehouse, data is present in summarized form.
- In database, data is highly organized (structured data), but data warehouses are used for storing large amount of data for analysis and processes on very large amount of data with very high speed.

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

Ans. Following are some major differences between structured data & un-structured data:

- Structured data is standardized, clearly defined, and searchable data, while unstructured data is usually stored in its native format.
- Structured data is quantitative, while unstructured data is qualitative.
- Structured data is often stored in data warehouses, while unstructured data is stored in data lakes.

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

Ans. Data engineers build and maintain data systems. They construct datasets that are easy to analyze and support company requirements.

Following some major responsibilities/duties of data engineer are:

- Analyze and organize raw data
- Build data systems and pipelines
- Evaluate business needs and objectives
- Interpret trends and patterns
- Conduct complex data analysis and report on results
- Prepare data for prescriptive and predictive modeling
- Build algorithms and prototypes
- Combine raw information from different sources
- Explore ways to enhance data quality and reliability
- Identify opportunities for data acquisition
- Develop analytical tools and programs
- Collaborate with data scientists and architects on several projects

