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

**Ans**: No, a database can't be used as a data warehouse because: Databases are made to collect and store data, but data warehouses are made for analyzing data.

In a database, data is saved in rows and columns of tables, but in a data warehouse, data is summarized.

In a database, the data is very well organized (called "structured data"). However, data warehouses are used to store large amounts of data so that they can be analyzed and processed quickly on very large amounts of data.

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

**Ans:** Here are some of the biggest differences between organized and unstructured data:

Structured data is data that is standard, well-defined, and searchable. Unstructured data, on the other hand, is generally stored in its original format.

Structured data is made up of numbers, while unstructured data is made up of words and phrases.

Data warehouses are often used to store organized data, while data lakes are used to store unstructured data.

**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 modelling

• 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