

# Introduction

1 minute

Data comes in all shapes and sizes, and can be used for many purposes. Many organizations use relational databases to store this data. However, the relational model might not be the most appropriate structure. The format of the data might be too varied to easily model as a set of relational tables. For example, the data might contain items such as video, audio, images, temporal information, large volumes of free text, or other types of data that aren't inherently relational. Additionally, the data processing requirements might not be best suited by attempting to convert this data into the relational format. In these situations, it may be better to use non-relational repositories that can store data in its original format, but that allow fast storage and retrieval access to this data.

Suppose you're a data engineer working at Contoso, an organization with a large manufacturing operation. The organization has to gather and store information from a range of sources, such as real-time data monitoring the status of production line machinery, product quality control data, historical production logs, product volumes in stock, and raw materials inventory data. This information is critical to the operation of the organization. You've been asked to determine how best to store this information, so that it can be stored quickly, and queried easily.

## Learning objectives

In this module, you will:

- Explore the characteristics of non-relational data
- Define types of non-relational data
- Describe NoSQL, and the types of non-relational databases

## Next unit: Explore characteristics of non-relational data

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