See this page in the course material.

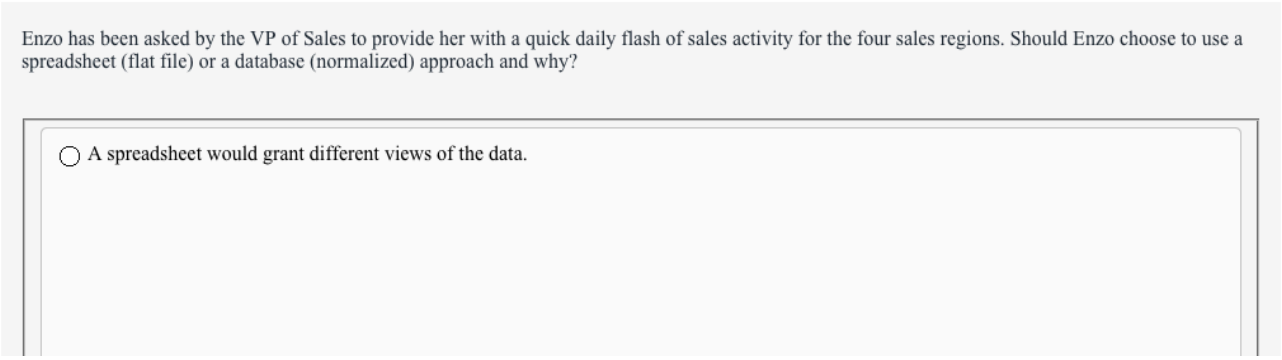
Learning Outcomes

- Differentiate between a flat file and a normalized data

In database terminology, the terms “flat file” and “normalized” data refer to how data is stored electronically. A flat file arrangement refers to how data is stored in a spreadsheet—a two-dimensional structure using rows and columns. A normalized scheme brings database capability, adding the use of another table(s) to store related data.

The difference between flat file and normalized schemes go back to the introduction of this discussion. Flat files (spreadsheets) are great for quick data entry by users, manipulating numerical data for fast analysis, having rich formatting features and mathematical functions for small to moderate data sets. When large quantities of data needs to be shared with multiple users using multiple views, be independent from the application, and protected from unauthorized users, we see the need for normalized data provided by database technology.

PRactice Question



See this interactive in the course material.

There is much more to normalization in database science. There are strict guidelines regarding normalization and how tables need to be constructed in databases, i.e., first normal form,

second normal form, third normal form, etc. These principles are essential to building error-free database designs and will be discussed in a later session.

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