

CHAPTER OVERVIEW

4: Data and Databases

Learning Objectives

Upon successful completion of this chapter, you will be able to:

- Explain the differences between data, information, and knowledge;
- Define the term database and identify the steps to creating one;
- Describe the role of a database management system;
- Describe the characteristics of a data warehouse; and
- Define data mining and describe its role in an organization.

This chapter explores how organizations use information systems to turn data into information and knowledge to be used for competitive advantage. We will discuss how different types of data are captured and managed, different types of databases, and how individuals and organizations use them.

[4.1: Introduction to Data and Databases](#)

[4.2: Examples of Data](#)

[4.3: Structured Query Language](#)

[4.4: Designing a Database](#)

[4.5: The Difference between a Database and a Spreadsheet](#)

[4.6: Big Data](#)

[4.7: Data Warehouse](#)

[4.8: Data Mining](#)

[4.9: Database Management Systems](#)

[4.10: Enterprise Databases](#)

[4.11: Knowledge Management](#)

[4.12: What is data science?](#)

[4.13: Summary](#)

[4.14: Study Questions - Data and Databases](#)

This page titled [4: Data and Databases](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Ly-Huong T. Pham and Tejal Desai-Naik](#) (Evergreen Valley College) .