

## Learning Guide Unit 4

### Reading Assignment

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#### As you go through the readings and watch the video, consider the following:

1. Are SQL data types essential for ensuring data integrity in a relational database?
  2. Is there a distinction between the functionalities of DDL, DML, and DCL SQL statements? If so, what are the primary differences?
  3. If understanding fundamental SQL commands like Create Table, Insert, Select, Update, and Delete is crucial for managing databases effectively, what specific advantages do they offer in terms of data manipulation and retrieval?
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### Read

1. Vidhya, V., Jeyaram, G., & Ishwarya, K. (2016). *Database management systems*. Alpha Science International.

- Log into the UoPeople library and go to LIRN - [How to Access LIRN?](#)
- Select **Computer Science** under the **Jump to the Specific Group section**.
- Search using the entire name of the book.
- View the online book.
- **Read Chapter 4 - SQL-Fundamentals**
  - Section 4.1- Introduction (pp. 84)
  - Section 4.2- Advantages of SQL (pp. 84 till pp. 85)
  - Section 4.3- Parts of SQL (pp. 85)
  - Section 4.4- Domain Types in SQL (pp. 85 till pp. 86)
  - Section 4.5- Terminology (pp. 86)
  - Section 4.6- Data Definition Language (DDL) (pp. 86 till pp. 90)
  - Section 4.7- Data Manipulation Language (DML) (pp. 90 till pp. 96)
  - Section 4.22- DCL (Data Control Language) (pp. 132 till pp. 138)
- This chapter covers the **fundamentals of SQL** (Structured Query Language), including its introduction, advantages, different parts, domain types, terminology, and various language components such as Data Definition Language (DDL), Data Manipulation Language (DML), and Data Control Language (DCL).

### Additional Readings

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1. Peterson, R. (2023, December 16). *SQL Cheat sheet with commands & description* (2024). GURU99. <https://www.guru99.com/sql-cheat-sheet.html>

- This reading covers a **comprehensive SQL cheat sheet** containing various commands and their descriptions, serving as a quick reference guide for users working with SQL databases. It provides a handy resource for understanding and utilizing fundamental SQL commands effectively in database management tasks.

2. *SQL: How to create and delete a table with SQL query*. (n.d.). EnableGeek. <https://www.enablegeek.com/tutorial/create-delete-table-sql-query/>

- This tutorial demonstrates the process of **creating and deleting a table using SQL queries**. It provides step-by-step instructions on how to execute these commands, offering practical guidance for individuals seeking to manage database structures efficiently.

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### Watch

1. CBT Nuggets. (2019, July 14). *What is the SQL language?* [Video]. YouTube.

- This video provides an **overview of the SQL** (Structured Query Language). It covers essential concepts related to SQL, such as its purpose, syntax, and usage in database management. The video explores topics like SQL data types, statements (DDL, DML, DCL) and fundamental commands.

What is the SQL Language?

