

# SQL and relational databases 101

## At a Glance

Are you ready to dive into the world of SQL and relational databases? In just a few hours, you'll be able to discuss SQL basics and explain various aspects of the relational database model. Try our hands-on exercises as we guide your first steps into SQL and relational databases.

### About This Course

Data is one of the most critical assets of any business. Data needs a database to store and process data quickly. SQL is a language used for a database to query data.

In this introductory course, you'll learn the basics of the SQL language and the relational databases. You'll start by learning about the relational model and relational model concepts and constraints. By the end of this course, you will have learned and used the five basic SQL statements, some advanced SQL syntax, and join statements.

This isn't your typical textbook introduction. You're not just learning through lectures. At the end of each module there are assignments, hands-on exercises, review questions, and also a final exam. Successfully completing this course earns you a certificate. So let's get started!

### Course Syllabus

- Module 1 – SQL and Relational Databases 101

- Introduction to SQL and Relational Databases
- Information and Data Models
- Types of Relationships
- Mapping Entities to Tables
- Relational Model Concepts

- Module 2 – Relational Model Constraints and Data Objects

- Relational Model Constraints Introduction
- Relational Model Constraints Advanced

- Module 3 – Data Definition Language (DDL) and Data Manipulation Language (DML)

- CREATE TABLE statement
- INSERT statement

- SELECT statement
- UPDATE and DELETE statements

- Module 4 - Advanced SQL

- String Patterns, Ranges, and Sets
- Sorting Result Sets
- Grouping Result Sets

- Module 5 - Working with multiple tables

- Join Overview
- Inner Join
- Outer Join