



MongoDB 101: Non-Relational for Beginners

Course Overview

This introductory level course covers the differences between relational and non-relational databases, the four main types of non-relational models, structure of the document model, and an introduction to data modeling and schema design within the document model. The course gives the foundational knowledge on multiple topics needed to start using non-relational databases.

Length: 1 hour

Level: Beginner

Course Content

All course content can be accessed in the [Google Drive folder](#), including:

- Slide deck with lecture notes - designed for a one hour lecture period
- PDF handout of slides with lecture notes
- Slide deck with quiz questions and explained answers

The PDF handout is also available to [download](#).

The materials are freely available for non-commercial use and are licensed under Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported [License](#).

Learning Objectives

At the end of this course, learners will be able to:

- Describe the differences between relational and non-relational databases.
- Identify the strengths of each of the four types of non-relational databases.
- Describe what a document is in terms of the document model.
- Identify the correct syntax and structure used in the document model.
- Define a collection in the document model.
- Define the concepts of linking and embedding data, and when one should be used over the other during schema design.
- Identify the types of data relationships between data (one to one, one to many, many to many).

Prerequisite Knowledge

This course is designed for introductory level learners who are either new to non-relational databases and/or to databases in general. While it would help to have some familiarity with relational databases, it is not necessary to benefit from this course. As such, the course

materials are well-suited to be used during a lecture or section on databases in an introductory or 101-level course.

Suggested Uses

While the course was made to be easily applicable to a lecture class, the materials can be used in a multitude of ways depending on your needs:

- The content can be used during one lecture class or across a couple of classes.
- The PDF handout can be used for asynchronous learning or as supplemental material to be completed outside of class.
- The slides and handouts can be used for self-paced learning for students and educators alike.

Share Your Feedback

We hope these curriculum materials will be a valuable resource for you and your learners. Let us know how the materials work for you, what we can improve on, and how MongoDB for Academia can support you via our brief [feedback form](#).

MongoDB for Academia

MongoDB for Academia offers resources for educators and students to support teaching and learning MongoDB. Check out our [educator resources](#) and join the Educator Community. Students can receive \$50 in Atlas credits and free certification through the [Github Student Developer Pack](#).

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