

Object-Relational Mapping

Web Development Boot Camp
Unit 13





**What are some of the challenges of
using plain SQL in JavaScript?**

Challenges of SQL in JavaScript

- It is prone to accidental syntax errors.
- Complicated queries can be hard to follow.
- It requires extra work to validate and secure data.
- Similar routes can lead to repetitive queries being written.
- Data relationships aren't obvious just by looking at the code.



What is object-oriented programming?

Object-Oriented Programming

- Code is organized using objects instead of functions.
- Objects can inherit properties and methods from other objects.
- Multiple objects can be created from the same blueprint classes or constructor functions.



How can objects help us manage SQL queries in JavaScript?

Objects and SQL

- We can set up object methods to run generic SQL queries based on the method's parameters.
- We can structure objects to mimic how the data is stored in the database, eliminating ambiguity.
- We can import objects into any other module that needs to execute its SQL queries.

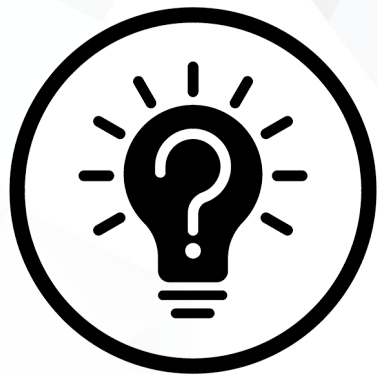


**Is there a library that might already do
this for us?**

Of Course There Is!

Sequelize is an object-relational mapper (ORM) that can be installed with npm. It provides the following benefits:

- Allows you to model your data as JavaScript classes.
- Abstracts SQL queries to simpler object methods.
- Provides built-in validation checks for securing data.
- Makes it easier to visualize and join relational data.
- And more!



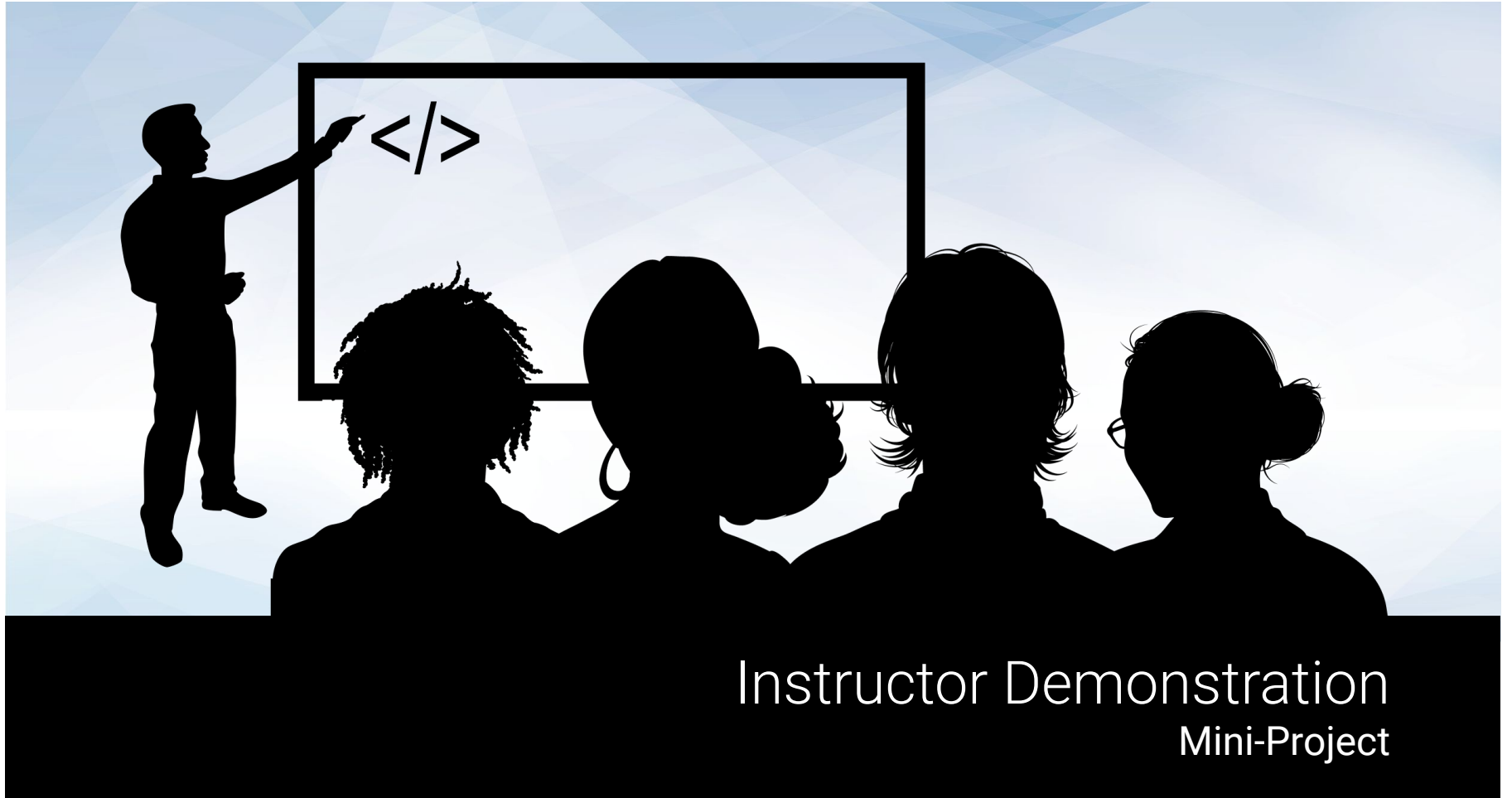
**How can we learn to use and
implement Sequelize?**

How to Learn Sequelize

Sequelize and other ORMs were created to make managing and using data easier, but they still come with a learning curve!

You can try the following strategies to learn Sequelize:

- Read the official documentation and practice with the provided examples.
- Reverse-engineer finished code to see how something was accomplished.
- Build something from scratch.
- Debug a broken app.
- And most importantly, ask questions!



Instructor Demonstration

Mini-Project