

neo4j



# Fullstack GraphQL

**Applications with GRANDstack**

Essential Excerpts

William Lyon

MANNING

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*Fullstack GraphQL Applications  
with GRANDstack*

by William Lyon

ISBN 9781617297038

300 pages (estimated)

\$39.99



***Fullstack GraphQL Applications with GRANDStack***  
***Essential Excerpts***

Chapters chosen by William Lyon

**Chapter 1**  
**Chapter 3**  
**Chapter 4**

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20 Baldwin Road Technical  
PO Box 761  
Shelter Island, NY 11964

Cover designer: Marija Tudor

ISBN: 9781617298745

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# *foreword*

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Thank you for downloading this special edition of *Fullstack GraphQL: Building Applications with GRANDstack*. This book is intended for developers interested in building full-stack applications with GraphQL. The successful reader will have some basic familiarity with Node.js and a basic understanding of client-side JavaScript, but most importantly, will have a motivation for understanding how to build GraphQL services and applications leveraging GraphQL.

The goal of this book is to demonstrate how GraphQL, React, Apollo, and Neo4j Database can be used together to build complex, data-intensive fullstack applications. You may be wondering why we've chosen this specific combination of technologies. As you read through the book, I hope you'll realize the developer productivity, performance and intuitive benefits of using a graph data model throughout the stack—from the database to the API—and all the way through the front-end client data fetching code.

The full book is divided into three sections, which together show how to build a fullstack business-reviews application with features such as search and personalized recommendations. The first section focuses on server-side GraphQL with Neo4j, building API functionality that includes not just simple data fetching, but also implementing custom logic using graph database traversals. The second section focuses on building a front-end using React and Apollo Client. And the final section explores more real-world concerns such as authorization, deployment, and rate limiting.

The special edition ebook you are reading now focuses on the first section: implementing a server-side GraphQL API backed by the Neo4j graph database. After reading these selected chapters and working through the exercises, you should have an understanding of how to build APIs with Neo4j and GraphQL, using the GraphQL integration for Neo4j known as neo4j-graphql.js.

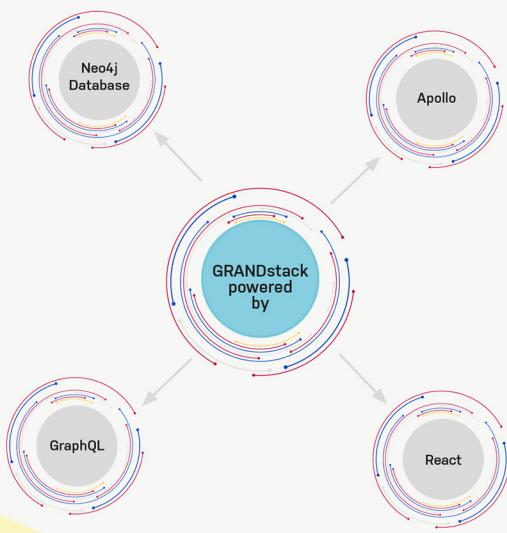
You can find all the relevant code and exercise solutions in the book's GitHub page: [github.com/johnymontana/fullstack-graphql-book](https://github.com/johnymontana/fullstack-graphql-book). Thanks for reading, and I hope you enjoy your fullstack GraphQL journey!

Cheers,  
William Lyon  
@lyonwj



GRANDstack

# BUILD FULL-STACK GRAPHQL APPLICATIONS WITH EASE



A screenshot of a GraphiQL interface. The top navigation bar includes "GraphiQL", "Prettify", "Merge", "Copy", and "History". The main area shows a GraphQL query:

```
1 {  
2   Stack(name: "GRANDstack") {  
3     name  
4     description  
5     powered_by {  
6       name  
7       description  
8     }  
9   }  
10 }
```

The "powered\_by" field returns a list of technologies, each with a name and description:

- { "name": "GRANDstack", "description": "Fullstack GraphQL Framework", "powered\_by": [ { "name": "Neo4j Database", "description": "Model, store, and query your data as a graph." }, { "name": "Apollo", "description": "Consistent tooling for GraphQL development." }, { "name": "React", "description": "Build reusable and composable user interfaces." }, { "name": "GraphQL", "description": "Use GraphQL to model and query your data." } ] }

With GraphQL, you model your business domain as a graph. Build your application with **graphs all the way** down by leveraging the world's leading graph database, Neo4j.

Try out both together in the cloud with Neo4j Sandbox.

[GRANDstack.io/sandbox](https://GRANDstack.io/sandbox)