BOARD INFINITY

COURSE 2 OF 3 · GRAPHQL MASTERY SPECIALIZATION

GraphQL API Development: Schema Design, Security & Deployment

Full course syllabus - every module, video lesson, reading and assignment, from advanced schema design to a GraphQL API deployed in the cloud.

Board Infinity
Instructor · Offered on Coursera

3	32	12	1 week
Modules	Video lessons	Assignments	At 10 hours a week

INSIDE THE COURSE

01	Mutations and Schema Design	4 hours to complete
02	Subscriptions and Authorization	3 hours to complete
03	Server Setup and Deployment	3 hours to complete

Enroll on Coursera

https://www.coursera.org/learn/graphql-api-design-schema-security--deployment

01 ABOUT THE COURSE

From schema to a production API.

GraphQL API Development picks up where GraphQL basics leave off, turning a simple server into an API you can run in production: a well-modeled schema, safe mutations, live data and a real deployment.

It focuses on enums, interfaces and unions, validation and access control, subscriptions with Pub/Sub, and cloud deployment - 32 videos, 3 readings and 12 assignments in all.

WHO IT'S FOR

Back-end developers
Designing, securing and deploying APIs others depend on.

Full-stack developers
Owning the API layer behind their front end.

GraphQL fundamentals graduates
Moving into mutations, auth and real-time.

API & platform engineers
Running GraphQL servers reliably in the cloud.

WHAT YOU'LL LEARN

01 **Design advanced schemas** Module 1
Design advanced GraphQL schemas using enums, unions and interfaces

02 **Build validated mutations** Module 2
Build secure mutations with input types, custom scalars and validation

03 **Add real-time and access control** Module 2
Add live updates with subscriptions and Pub/Sub, and protect resolvers

04 **Deploy to the cloud** Module 3
Deploy production GraphQL APIs with databases and environment configs

02 SYLLABUS

Three modules, schema to deployment.

1 week to complete at 10 hours a week. Flexible schedule - learn at your own pace.

01 Mutations and Schema Design

Writing mutations, enums, interfaces and unions, and modular schemas

4 hours

13 videos

BY THE END OF THIS MODULE YOU CAN

- Write mutations with variables and input types for CRUD
- Model data with enums, interfaces and union types
- Organize schemas across files with schema stitching
- Maintain large-scale GraphQL projects

CONTENTS

13 videos (66 min) · 1 reading (30 min) · 4 assignments (105 min) · 1 plugin (5 min)

TOPICS

Writing Mutations | Enums, Interfaces, and Unions | Schema Modularity and Reusability | Quick Course Check-In (plugin)

You'll leave with: a well-structured, modular schema with mutations that can grow as your API grows.

02 Subscriptions and Authorization

Validation, real-time subscriptions, and authentication and access control

3 hours

10 videos

BY THE END OF THIS MODULE YOU CAN

- Create custom scalars, and validate and sanitize input
- Handle errors in resolvers
- Build real-time features with subscriptions and Pub/Sub
- Protect resolvers with token auth and role-based access

CONTENTS

10 videos (48 min) · 1 reading (30 min) · 4 assignments (105 min)

TOPICS

Validations and Constraints | Real-Time Data with Subscriptions | Authentication and Authorization

You'll leave with: an API that validates its input, pushes live updates, and only answers the users it should.

03

Server Setup and Deployment

Database setup, environment configuration, and deploying to the cloud

3 hours

9 videos

BY THE END OF THIS MODULE YOU CAN

- Install, configure and seed a database
- Connect your database to GraphQL resolvers
- Manage environment variables and configuration
- Deploy to Render and compare hosting platforms

CONTENTS 9 videos (40 min) · 1 reading (30 min) · 4 assignments (105 min)

TOPICS Database Setup and Connection · Deployment Best Practices · Course Wrap-up

You'll leave with: a GraphQL API running in the cloud, backed by a real database and production-ready configuration.

03 TOOLS & SKILLS

The techniques that run through the course.

Advanced schema types Module 1

Enums, interfaces and unions for richer data models.
In this course: Plus multi-file schemas and schema stitching.

Subscriptions & Pub/Sub Module 2

Pushing real-time updates the moment data changes.
In this course: Setting up Pub/Sub and building live features.

Token auth & RBAC Module 2

Authenticating users and controlling access in resolvers.
In this course: Protecting queries and mutations.

Cloud deployment Module 3

Databases, environment configs and hosting.
In this course: Deploying your GraphQL server to Render.

SKILLS YOU LEAVE WITH

Schema design

- Mutations & inputs
- Enums & interfaces
- Schema stitching
- Maintainability

Security & real-time

- Input validation
- Authentication
- Role-based access
- Subscriptions

Deployment

- Database integration
- Environment configs
- Cloud deployment
- Application servers

04 CERTIFICATE & CAREER

Finish with a shareable certificate.

Add it to LinkedIn
Add this credential to your LinkedIn profile, resume, or CV.

Share it anywhere
Share it on social media and in your performance review.

Earned, not attended
Awarded on completion of the graded quizzes in all three modules.

Course 2 of 3
The second course of the GraphQL Mastery Specialization.

WHERE THESE SKILLS ARE IN DEMAND

GraphQL Developer · Back-End Developer · Full-Stack Developer · API Developer · Node.js Developer · Platform Engineer

Board Infinity

Instructor · Offered on Coursera

Intermediate level · Taught in English · 3 languages available · Flexible schedule

Ready to ship production GraphQL?

Enrollment, lessons, grading and the certificate all happen on Coursera.

Enroll on Coursera

Course page: coursera.org/learn/graphql-api-design-schema-security--deployment

Want a coach alongside the course?

Board Infinity 1:1 coaching is a separate, optional Board Infinity offering - it is not part of the Coursera course. Details: https://www.boardinfinity.com/career-coaching/

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