

Accelebrate Webinar

Getting Started with Apollo and GraphQL with React

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The Accelebrate Difference

- In-person private training for your group
 - In-person with some remotes
- Synchronous online
 - Private
 - Public
- Online courses (and courses with some online remotes) are easily recordable in most cases

The Accelebrate Difference

- Instructors who are experts
 - Real-world experience
- Flexible and eager to customize your training
 - We always request a pre-class call and/or survey
- Rapidly responsive before, during, and after class
- Drama-free logistics - instructor and materials arrive on-time

Apollo/GraphQL-related Courses

- Introduction to GraphQL and Apollo Client with React
- Modern Web Service Design with REST, GraphQL, and Beyond
- Introduction to React, GraphQL, and Relay

Webinar Agenda

- What is GraphQL?
- What is Apollo?
- Integrating React with Apollo and GraphQL
- Apollo + GraphQL + React Demonstration
- Questions

What is GraphQL?

- GraphQL is an API for your data
- GraphQL is like SQL for all your data services
- GraphQL provides a standards-based query language to request the data which is needed
- The data structure is not limited to a "row" or a single "resource", but is a map of data spanning many nodes and collections of nodes

What is GraphQL?

- GraphQL is superior to REST services
 - Request only the needed data
 - Combine multiple resources into a single request
 - Mutations are not tied to the HTTP verb system
 - Queries follow a standard not conventions
 - Query syntax is easy to use

What is GraphQL?

- GraphQL can be used with REST services
 - Existing data services, including REST services, can be wrapped in GraphQL
 - Wrapping existing data services in GraphQL allows GraphQL to be used today without rewriting existing systems
 - GraphQL can be adopted as needed

What is GraphQL?

- GraphQL supports three kinds queries
 - Retrieving Data (think of SQL select)
 - Mutating Data (think of a more flexible SQL insert, update, delete)
 - Introspection queries to retrieve the schema of the GraphQL types

What is GraphQL?

- GraphQL supports a sophisticated type system
 - GraphQL is a standard which can be implemented in any programming language such as JavaScript, Java, .NET, Python, etc...
 - Types are not tied to the implementation language's types
 - GraphQL support primitives, enums, object types
 - Also, GraphQL supports interfaces and union types

What is GraphQL?

- GraphQL and Web Applications
 - GraphQL returns query results in a JSON format
 - Calls to GraphQL can be made with the XHR object or the newer Fetch API
 - All calls are POST requests
 - Several programming clients for GraphQL exist, two popular ones are Apollo and Relay

What is Apollo?

- Apollo is a GraphQL library for the client and server
- Apollo provides an engine for managing your GraphQL gateway (not covered here)
- Apollo client can be used with any UI framework or library
- Apollo server is a Node.js based GraphQL server platform

Apollo Client

- Apollo client works with React, Angular, Vue.js, etc...
- Supports queries, mutations, caching, subscriptions, etc...
- Incrementally adoptable, easily used in existing UI code and works with any GraphQL server

Apollo Server

- Similar to the reference implementation of Express/GraphQL except it works with many Node.js web frameworks including Hapi, Koa, etc...
- GraphQL and the tool GraphQL can be mounted on different routes
- Http Query Batching
- Apollo Tracing and Cache Control

Apollo + GraphQL + React **Demonstration**

- Explore the Apollo APIs for a GraphQL Server and Client
- Configure a React Project to use Apollo
- Write some Server-Side and Client-Side Code which uses Apollo
- Tools:
 - Visual Studio Code + Node.js
 - JSON Server (<https://github.com/typicode/json-server>)

Getting the Code

- Code will be pushed to GitHub at the end of the webinar!
- <https://github.com/t4d-accelebrate-webinars/apollo-and-graphql-with-react>
- Contact Eric: eric@t4d.io
- Contact Accelebrate: info@accelebrate.com

Questions



- Feel free to ask questions on Apollo, GraphQL, React and JavaScript related technologies!