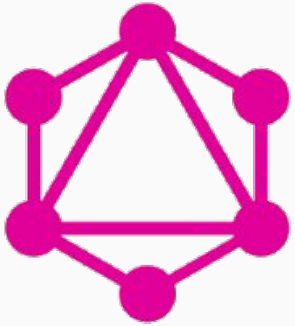
GraphQL Apollo Introduction

Writing React applications with GraphQL Apollo stack

Metál Ádám
Full-stack JavaScript developer @ Coding Sans

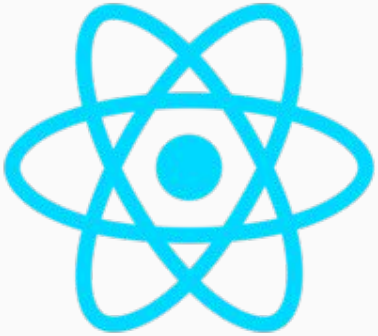
Starring ✨

Node.js



GraphQL

Apollo



React

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What is GraphQL?

- Query and schema Language
- Easy to connect with multiple services, databases and any data source

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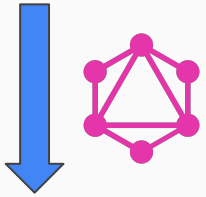
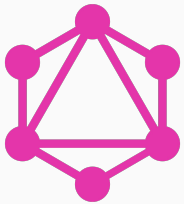
Clients, Apollo, Relay, React, Angular, etc...



HTTP Layer
GraphQL Middleware



Schemas
Mutations
Resolvers

Data sources like databases, or other services

Example schema

```
const ProjectType = new GraphQLObjectType({
 name: 'Project',
 fields: () => ({
   id: { type: GraphQLID },
   name: { type: GraphQLString },
   required: {
     type: new GraphQLList(TechnologyType),
     resolve(parentValue) {
       return ProjectModel.findRequirements(parentValue._id);
     },
   },
 }),
});
```

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Compare to REST

- “the description of a particular resource is not coupled to the way you retrieve it.”
- “In GraphQL, you can traverse from the entry point to related data, following relationships defined in the schema, in a single request. In REST, you have to call multiple endpoints to fetch related resources.”

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What is Apollo?

- It's a GraphQL client.
- Has a similar structure to Redux.
- Actually, holds an inner Redux store.

```
const client = new ApolloClient({
 dataIdFromObject: o => o.id,
});

const Root = () => (
 <ApolloProvider client={client}>
   <App />
 </ApolloProvider>
);
```

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Perform queries

- graphql-tag library
- GraphQL high-order component
- Results stored in props

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```
import gql from 'graphql-tag';
export default gql`
{
 technologies {
    id,
    name,
 }
}
`;
// In Component
export default graphql(query)(App)
```

Sources 👀

- https://dev-blog.apollodata.com/graphql-vs-rest-5d425123e34b
- https://philsturgeon.uk/api/2017/01/24/graphql-vs-rest-overview/
- http://dev.apollodata.com/react/index.html
- http://graphql.org/

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TL;DR

- GraphQL is a schema and query language
- Single endpoint on server.
- Apollo is a client for GraphQL with several features like optimistic UI
- Questions? □

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