

# GraphQL for fun and profit



# Risha Mars

Software Engineer

 @marzipan

 @rmars

 @marzipan



# Things we will learn

What is GraphQL?

Querying with GraphQL



Adding GraphQL to your app (SQL database, gRPC service)

Using GraphQL to connect different data types

Choosing a GraphQL library

# What is GraphQL?



Things you'll learn:

- Schema
- Query Language
- Resolvers

# Querying

- Specify only the data you need!
- Make one query for all the data you need!
- Get all related data in a single query, without having to manually match it
- GraphQL playground for experimenting and exploration

# Adding GraphQL to your app

- Choose a GraphQL library
- Define your schema
- Add resolver functions to satisfy the schema

Demo application:

<https://github.com/rmars/emojivoto>

# Connecting data

- Using resolvers, we can stitch together data from different sources!

# Things I don't have time to tell you about

- Mutations
  - For adding / updating data
- Subscriptions
  - The server can send updates back to the client when data changes!



# Choosing a GraphQL library

- <https://graphql.org/code/>
- Available for many languages!
- General advice:
  - Look at commit velocity
  - Look at open / resolved issues
  - Documentation
  - Help

# GraphQL pros

Get exactly the data you request (small!)

Get all the data in a single request (fast!)

API exploration and documentation

Great for prototyping

Search together all the data!

# GraphQL cons

It's easy to request a LOT of data

Watch your query depth!

Client caching (HTTP caching per URL not possible)

Cache your backend queries / db lookups!

Learning curve (not too bad though)

[bit.ly/wwg-graphql](https://bit.ly/wwg-graphql)

