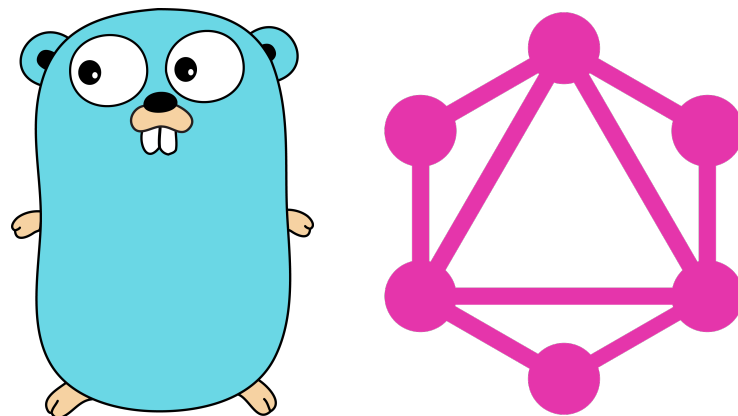


Go with GraphQL

works very very well



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GoWroc, 30 III 2017



Agenda

- What is GraphQL?
- GraphQL vs REST
- Structure: queries & mutations
- Building a simple API -> **LIVE CODING**
- More complicated structures -> **LIVE CODING**
- Making mutations -> **LIVE CODING**
- Real use case - **DEMO**

What is GraphQL?

- Solution created by Facebook in 2015
- Alternative to REST
- Represents data as graph
(not necessarily stored in graph database)

GraphQL vs REST

- Generally has a single endpoint
- Query dictates what data is requested
- Requires to define a subset of fields, only returns those
- Saves a lot of request when fetching related data

GraphQL structure

- Three main elements:
 - Queries - return data
 - Mutations - making changes to data
 - Subscriptions - live updates
(out of scope for today, sorry)

Building Simple API

Live coding (hopefully)

Simple API

```
query {  
  hello  
}
```

```
{  
  hello: "world"  
}
```

More complicated

Less likely to end well..

More complicated

```
query {  
  user(login: "slomek") {  
    login,  
    permissions  
  }  
}
```

```
{  
  user{  
    login: "slomek",  
    permissions: ["dare Demo Gods to infer"]  
  }  
}
```

Making mutations

while losing the rest of respect of the audience

Making mutations

```
mutation {  
  addPermission(  
    login: "slomek",  
    permission: "play cool") {  
      login,  
      permissions  
    }  
  }  
}
```

```
{  
  addPermission{  
    login: "slomek",  
    permissions: [  
      "dare Demo Gods to infer"  
      "play cool"  
    ]  
  }  
}
```

Real use case

Finally something prepared offline

Making mutations

Get all open PRs for GitHub organisation

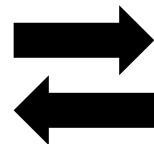


REST

GraphQL

1.1s

14.5s



1

81

Thank you!

Any easy questions?