

GRAPHQL

101

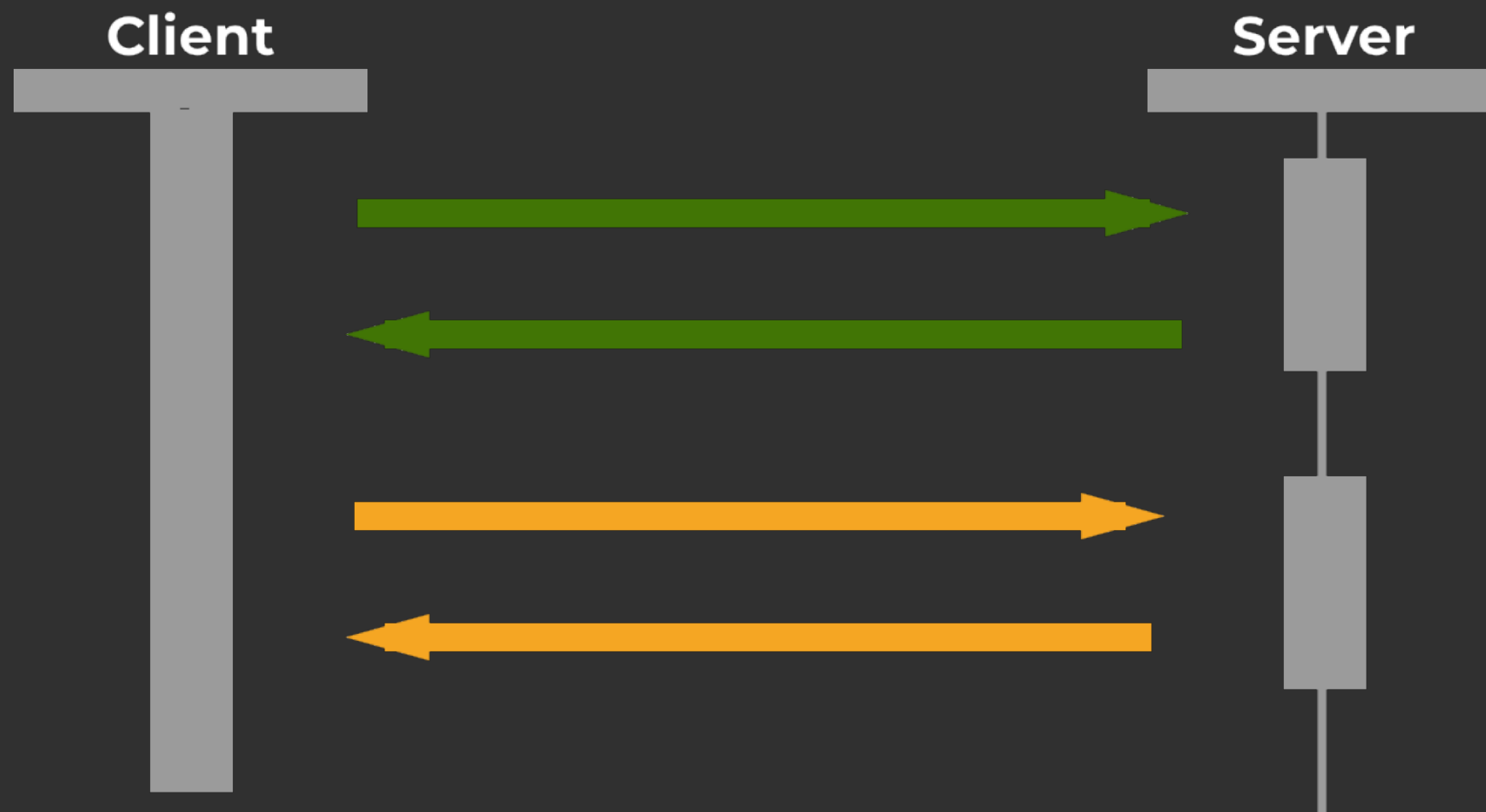
And why should REST Rest in Peace

WHAT WILL WE DISCUSS?

- What is the problem with REST?
- The solution : GraphQL
- Basic Terms and Tools
- Setting up Apollo in Xcode
- Querying and Mutations through the app
- References and follow ups

PROBLEMS WITH REST

- Dependent requests



Bandwidth

```
"biography": {  
  "full-name": "Terry McGinnis",  
  "alter-egos": "No alter egos found.",  
  "place-of-birth": "Gotham City",  
  "first-appearance": "Batman Beyond #1",  
  "alignment": "good"  
}
```

```
"biography": {  
  "full-name": "Terry McGinnis",  
  "alter-egos": "No alter egos found.",  
  "place-of-birth": "Gotham City",  
  "first-appearance": "Batman Beyond #1",  
  "alignment": "good"  
}
```

Versioning of APIs



SOLUTION:GRAPHQL

- Client driven, You only get what you need

Query:

```
query {  
  repository(owner:"jakewharton", name:"butterknife") {  
    name  
    description  
    forkCount  
    url  
  }  
}
```

Response:

```
{  
  "data": {  
    "repository": {  
      "name": "butterknife",  
      "description": "Bind Android views and callbacks to fields and methods.",  
      "forkCount": 3989,  
      "url": "https://github.com/JakeWharton/butterknife"  
    }  
  }  
}
```

- Avoid doing multiple calls.

REST

```
GET /users/123ur4
{
  "id": 123ur4
  "name": "Amanjeet"
  // ... more fields here
}
```

```
GET /users/123ur4/followers
{
  "followers": [
    {"name": "Akshay"},
    {"name": "Bhagat"}
    //so on
  ]
}
```

GRAPHQL

```
query{
  User(id:"123ur4"){
    name
    post{
      title
    }
    followers(last:3){
      name
    }
  }
}
```

```
{
  "data":{
    "User"{
      "name": "Amanjeet",
      "post": [
        {"title": "Hey hello"}
      ],
      "followers": [
        {"name": "John"}
        {"name": "Cena"}
      ]
    }
  }
}
```

Less Time Consuming



NO PARSING! : APOLLO DOES IT FOR YOU



TOOLS AND APIS

- GraphQL
- Apollo iOS Client
- Altair GraphQL Client
- Express GraphQL
- Github GraphQL API
- Yelp GraphQL API
- StarWars GraphQL API
- Your own API (if we convince you today)

BASIC TERMS

- Querying

```
query FindQuery($owner:String!,$name:String!){  
  repository(owner:$owner, name:$name) {  
    name  
    description  
    forkCount  
    url  
  }  
}
```

- Mutation

```
mutation CreateReviewForEpisode($ep: Episode!, $review: ReviewInput!) {  
  createReview(episode: $ep, review: $review) {  
    stars  
    commentary  
  }  
}
```

LIVE DEMO APP

REFERENCES AND FOLLOW-UPS

- GraphQL Official Docs -
<http://graphql.org/learn/>
- GraphQL Talk at CocoaHeads Stockholm -
<https://www.youtube.com/watch?v=ArMgdV-VwJ8&t=447s>
- Apollo iOS Client -
<https://www.apollographql.com/docs/ios/>
- Medium Post by Amanjeet Singh -
<https://medium.com/mindorks/what-is-graphql-and-using-it-on-android-ab8e493abdd7>

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