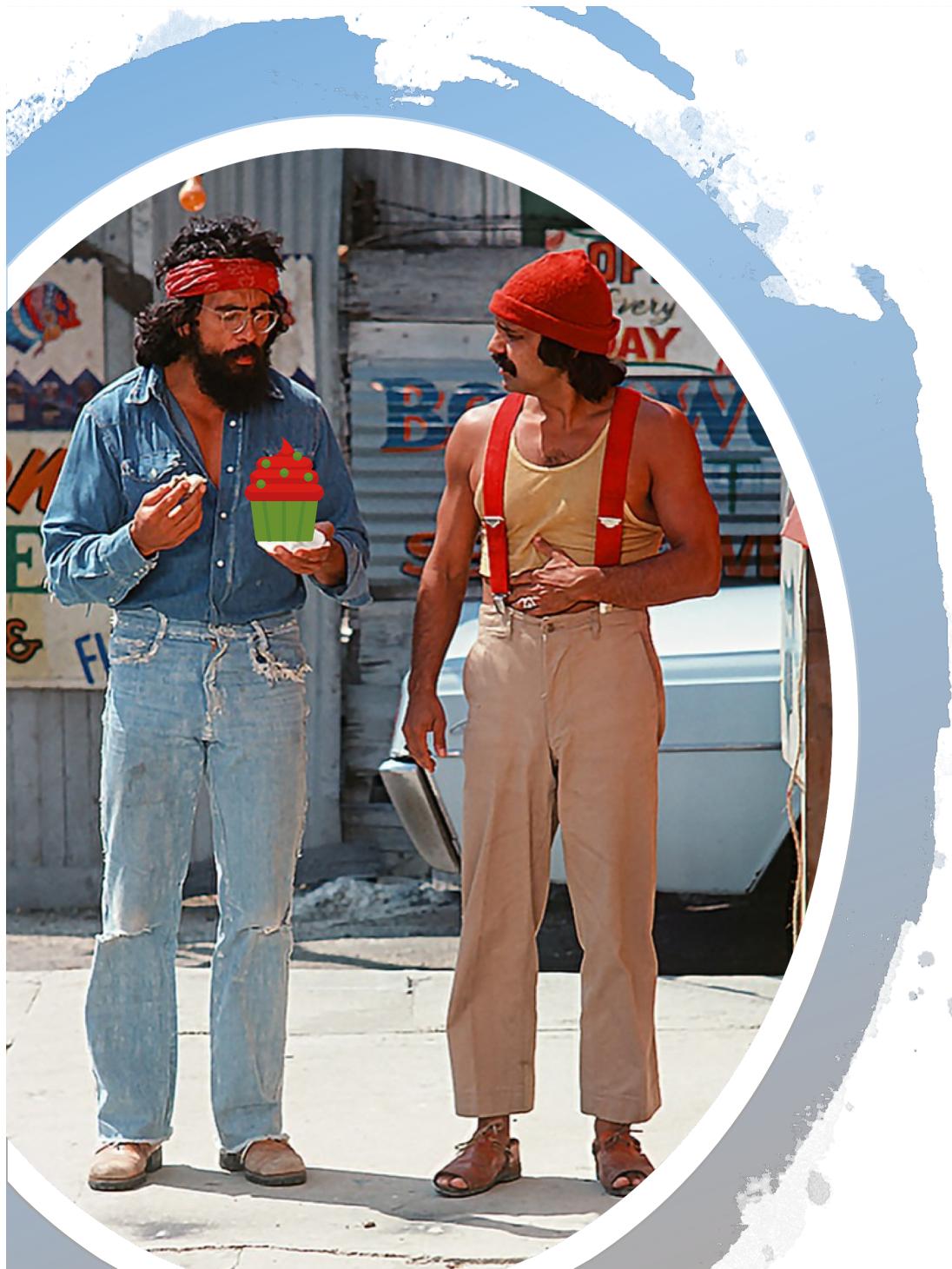


# **GraphQL Schema Stitching**

**WITH**

## **Hot Chocolate**



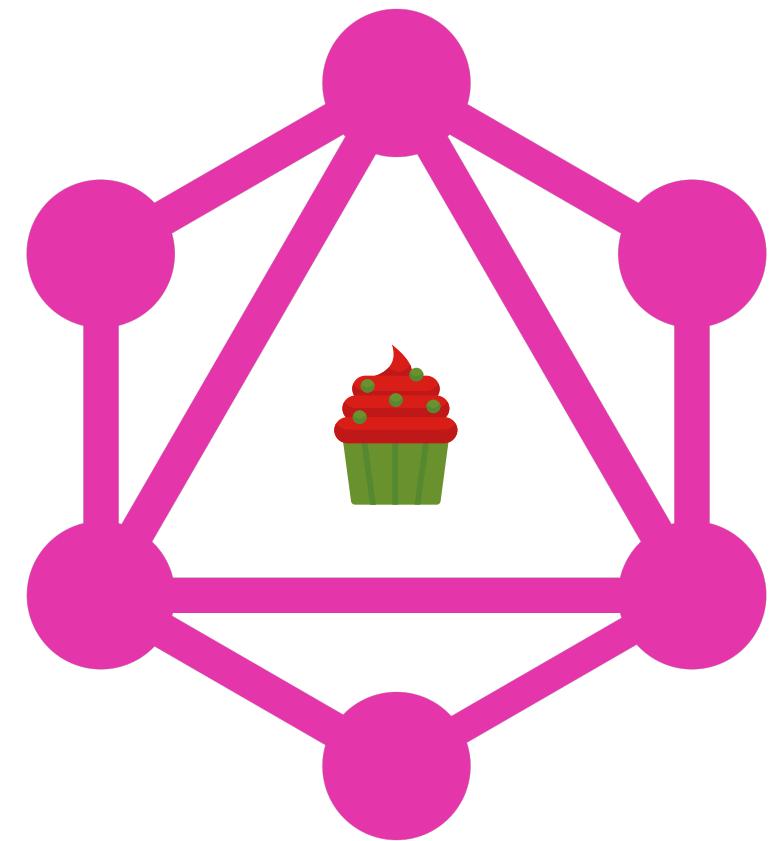


**Who are we?**



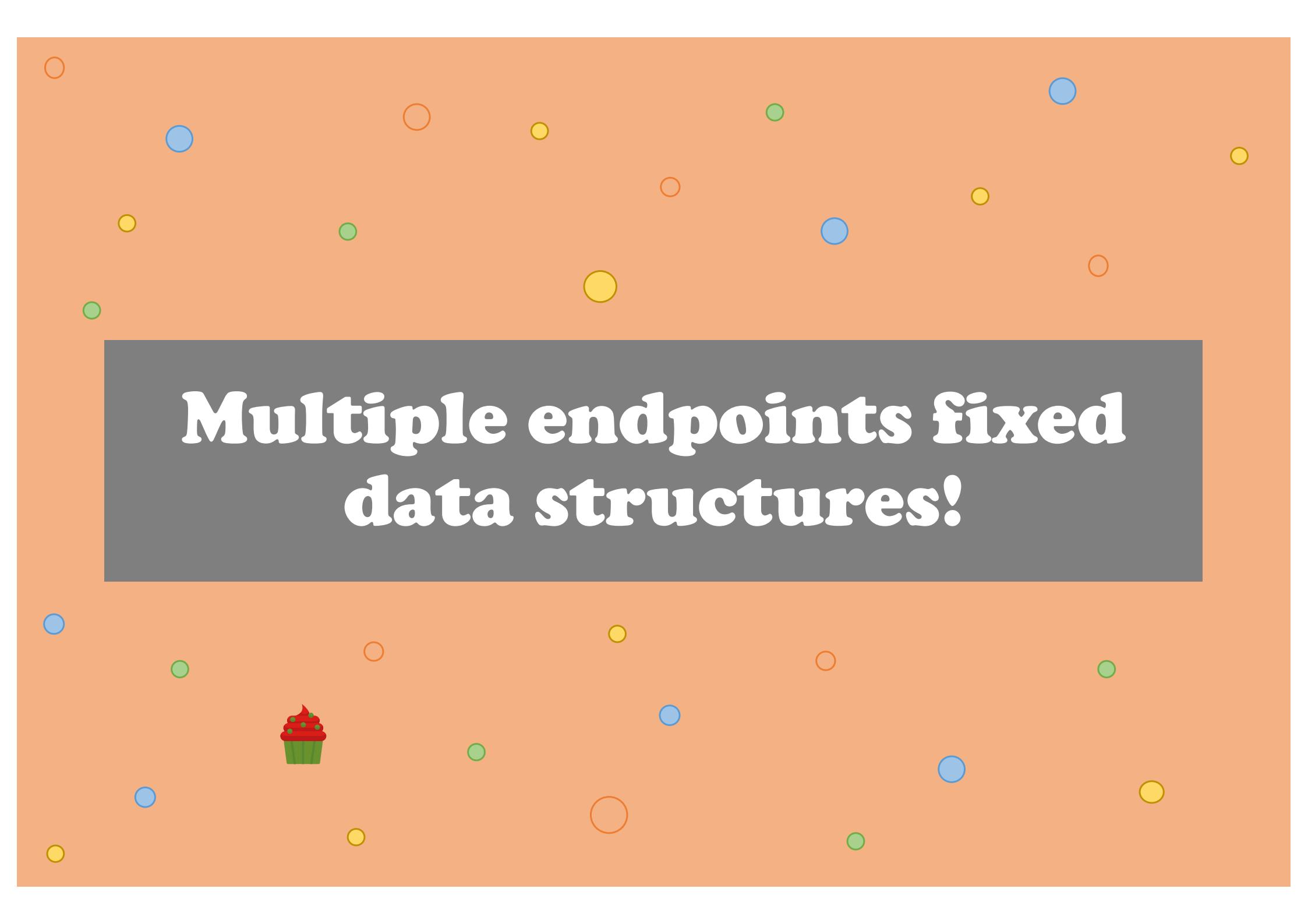
**Who is this for?**

{ REST }



# What is wrong with REST?





**Multiple endpoints fixed  
data structures!**



'Apple MacBook 12, Intel  
M3 1.2GHz, 256GB SSD, 8GB RAM,  
2017, Space Grey  
by Apple

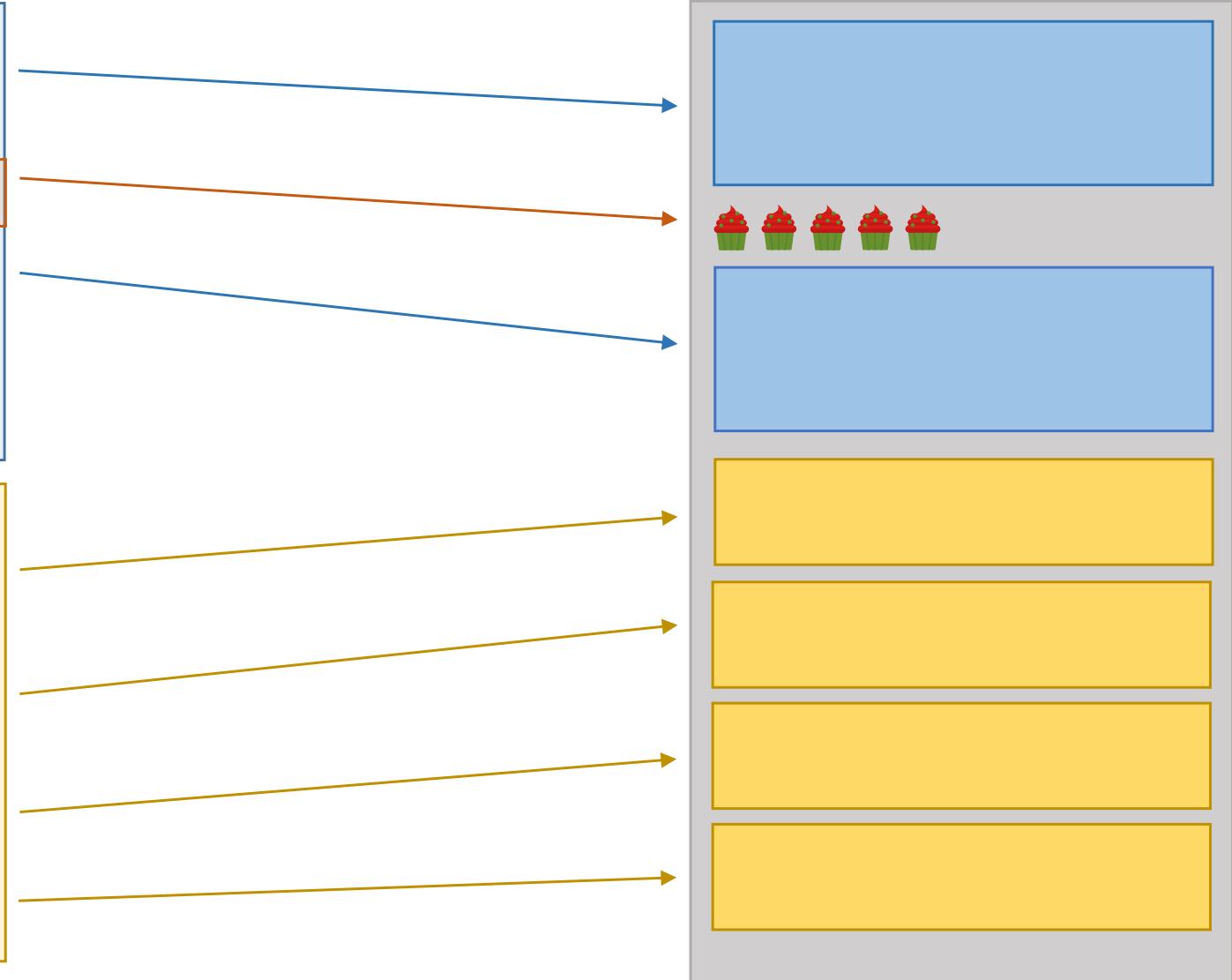
★★★★★ 5 customer reviews  
| 5 answered questions

Price: EUR 1,389.00 ✓prime  
Prices for items sold by Amazon are inclusive  
of German VAT. For other items, please see  
details.

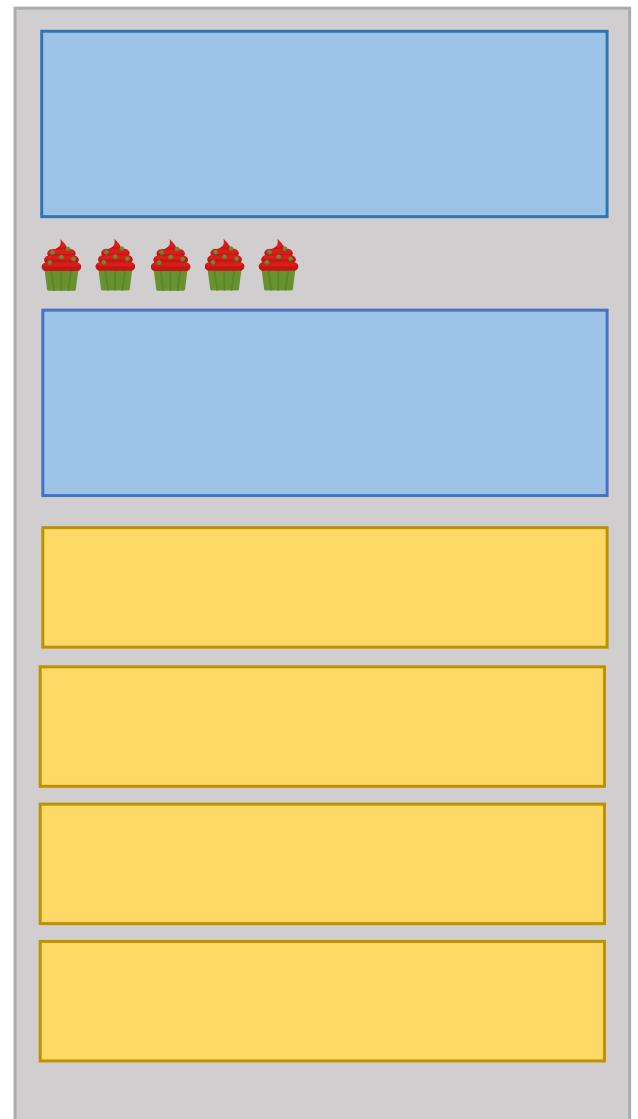
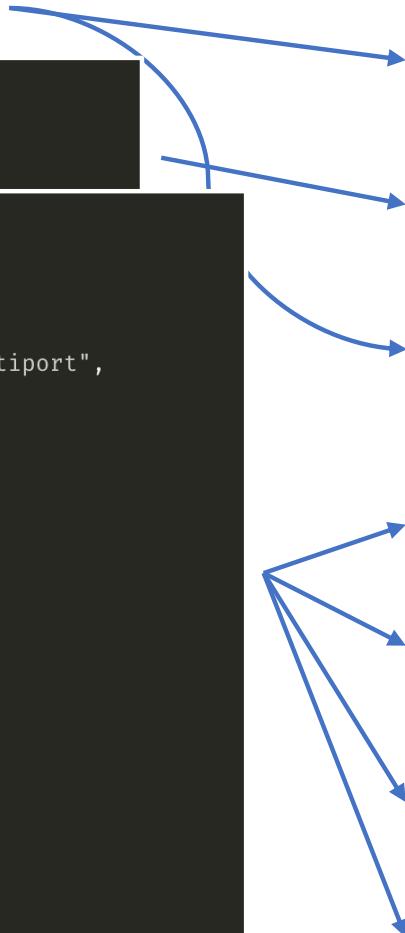
FREE Delivery by Wednesday-Thursday, 23 May  
[Details](#)

Add Additional Items

- Apple USB-C-Digital-AV-Multiport-  
Adapter EUR 79.00 EUR 68.00
- Apple Magic Keyboard mit  
Ziffernblock (Deutsch) : Deutsches  
Tastatur-Layout, QWERTZ EUR  
149.00 EUR 122.00
- Magic Trackpad 2: Silber EUR 149.00  
EUR 129.00
- Apple USB-C-auf-USB-Adapter EUR  
25.00 EUR 22.99

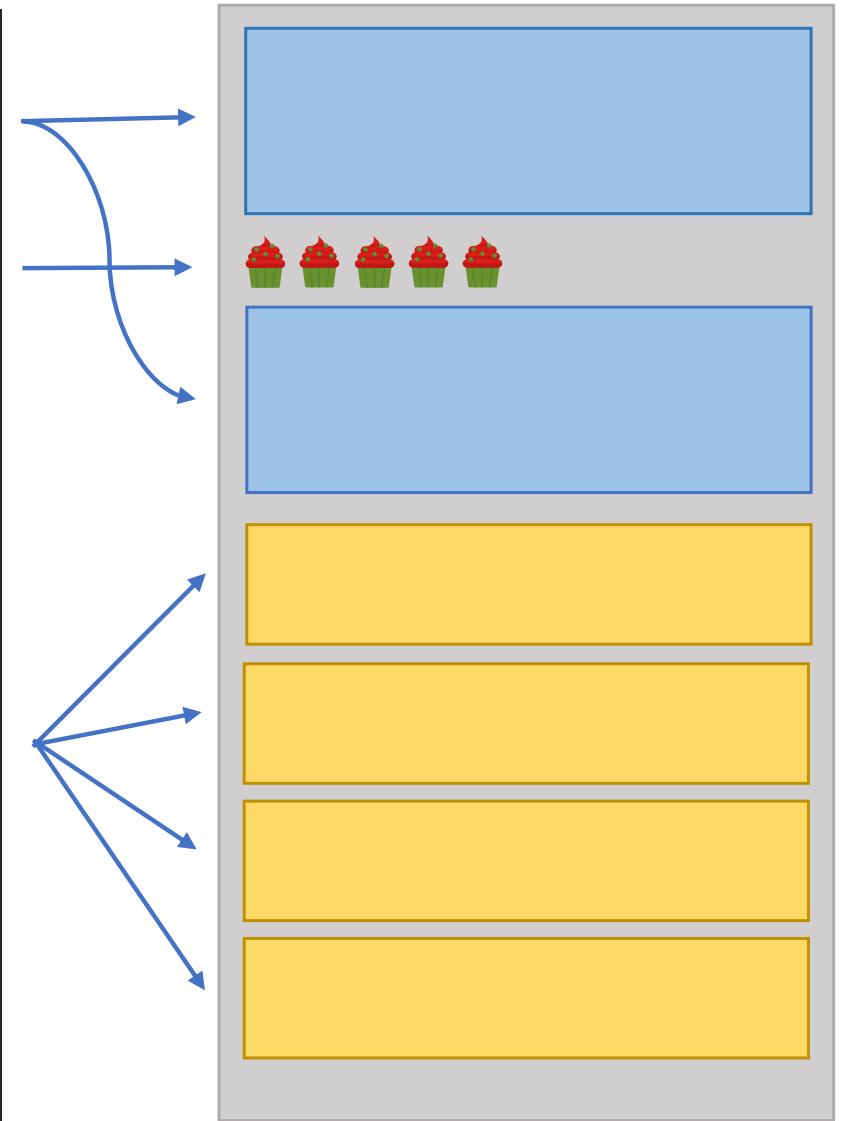


```
{  
  "id": "abcdef",  
  "product": "Apple MacBook 12, Intel M3 1.2GHz, 256GB SSD, 8GB RAM, 2017",  
  "manufacturer": "Apple",  
  "price": 1220.00,  
  "reviews": 5,  
  "avarage": 3.5,  
  "related": [  
    {  
      "id": "abcdef",  
      "product": "Apple USB-C-Digital-AV-Multiport",  
      "manufacturer": "Apple",  
      "price": 68.00  
    },  
    {  
      "id": "abcdef",  
      "product": "Apple Magic Keyboard",  
      "manufacturer": "Apple",  
      "price": 122.00  
    },  
    {  
      "id": "abcdef",  
      "product": "Apple USB-C Adapter",  
      "manufacturer": "Apple",  
      "price": 22.99  
    }  
  ]  
}
```



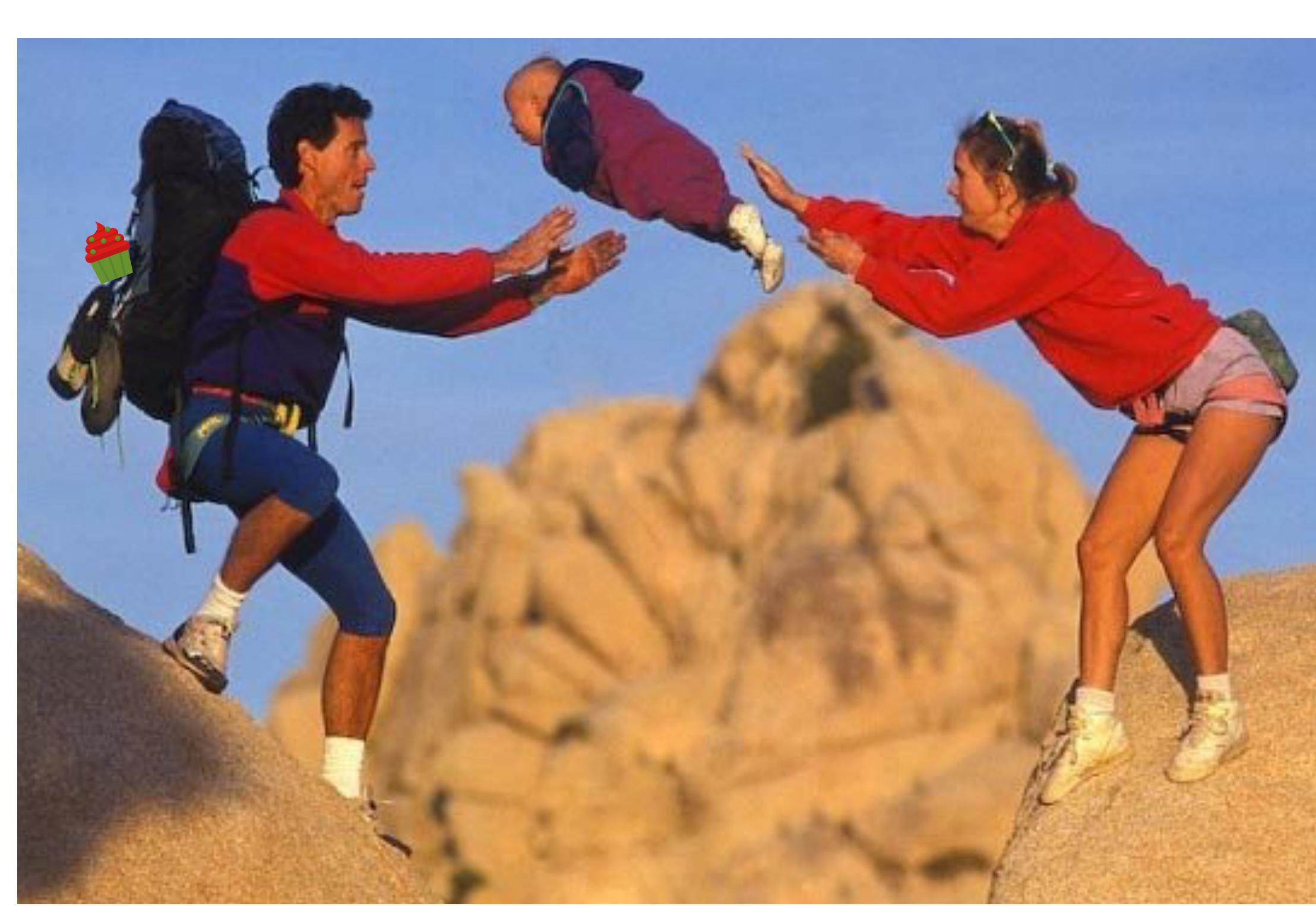
**Why not create one optimized  
cupcake request?**

```
{  
  "id": "abcdef",  
  "product": "Apple MacBook 12, Intel M3 1.2GHz, 256GB SSD, 8GB RAM, 2017",  
  "manufacturer": "Apple",  
  "price": "1389.00",  
  "reviews": 5,  
  "avarage": 3.5,  
  "questions": 5,  
  "related": [  
    {  
      "id": "abcdef",  
      "product": "Apple USB-C-Digital-AV-Multiport",  
      "manufacturer": "Apple",  
      "price": "68.00"  
    },  
    {  
      "id": "abcdef",  
      "product": "Apple Magic Keyboard",  
      "manufacturer": "Apple",  
      "price": "122.00"  
    },  
    {  
      "id": "abcdef",  
      "product": "Apple USB-C Adapter",  
      "manufacturer": "Apple",  
      "price": "22.99"  
    }  
  ]  
}
```





**But what will happen if we  
need new Functionality?**





**GET**

**https://webservices.amazon.com/onca/xml?**  
**Service=AWSECommerceService&**  
**AWSAccessKeyId=mY-Sup3r-s3cr3!-k3y&**  
**AssociateTag=12345&**  
**Operation=ItemLookup&**  
**ItemId=0316067938&**  
**ResponseGroup=Reviews&**  
**TruncateReviewsAt=256&**  
**IncludeReviewsSummary=False&**  
**Version=2013-08-01&**  
**Timestamp=[YYYY-MM-DDThh:mm:ssZ]&**  
**Signature=[Request Signature]**



# **And what about documentation?**





**One Endpoint**

**Simplicity**

**No over- or under-fetching**

# Why GraphQL?

**One Request**

**Type System**

**Documentation**



**No versioning**

```
query {  
  me {  
    name  
    age  
  }  
}
```



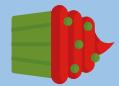
```
{  
  "me": {  
    "name": "Foo",  
    "age": 99  
  }  
}
```



# **GraphQL Schemas consist of three Root Types**

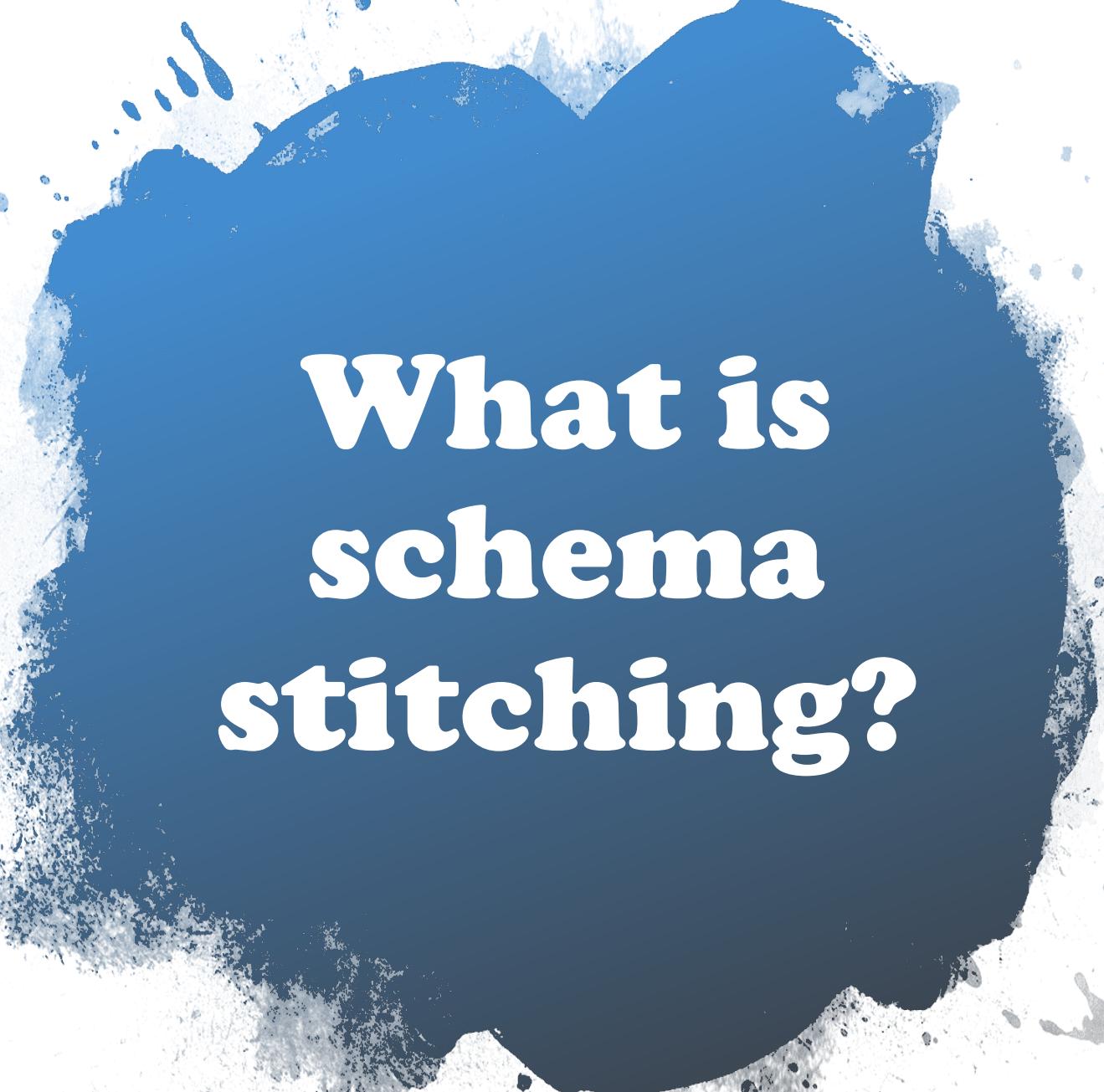
**Query**  
**Mutation**  
**Subscription**

# Demo



**How can we do microservices with  
that?**



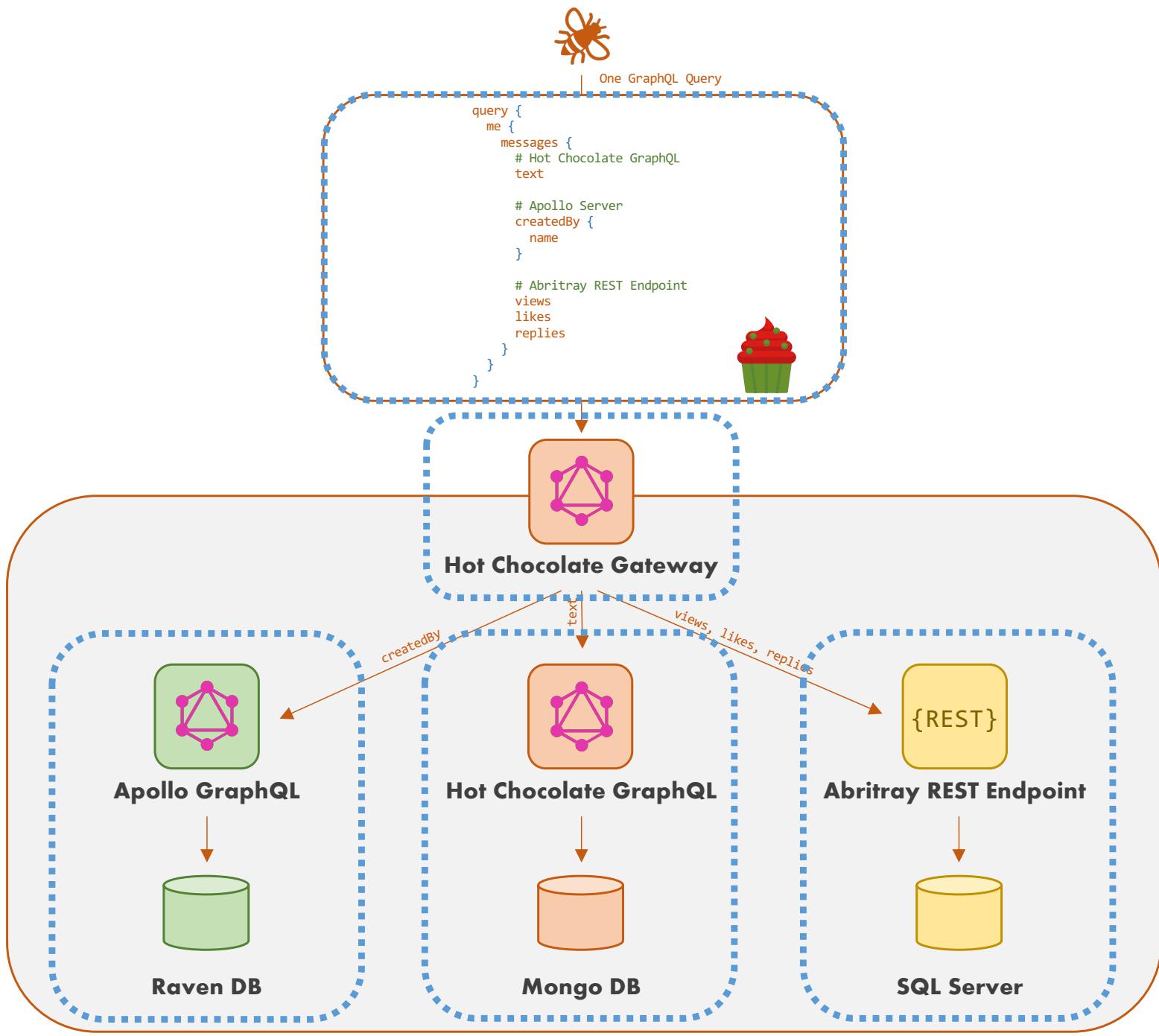


What is  
schema  
stitching?

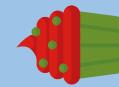


**The capability to merge multiple  
GraphQL schemas into one schema.**





# Demo



# Outlook



**<https://hotchocolate.io>**

**<https://chillicream.com>**

**Where do you find us?**

**[https://twitter.com/Chilli\\_Cream](https://twitter.com/Chilli_Cream)**

**<https://github.com/ChilliCream>**

