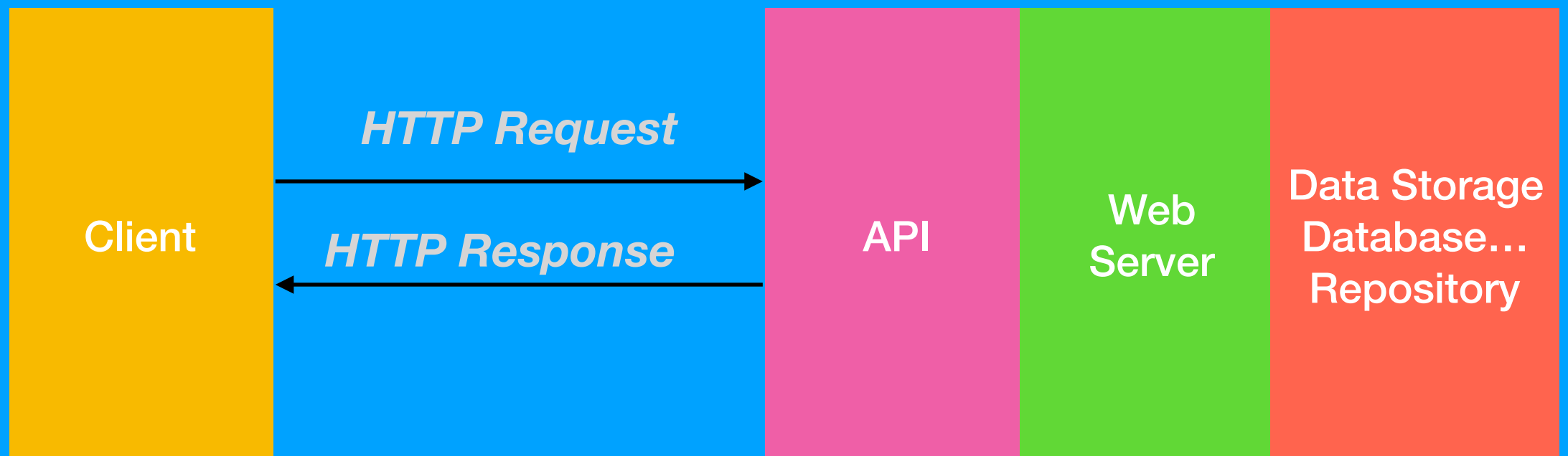


# Why GraphQL?

## REST

*Representational State Transfer*

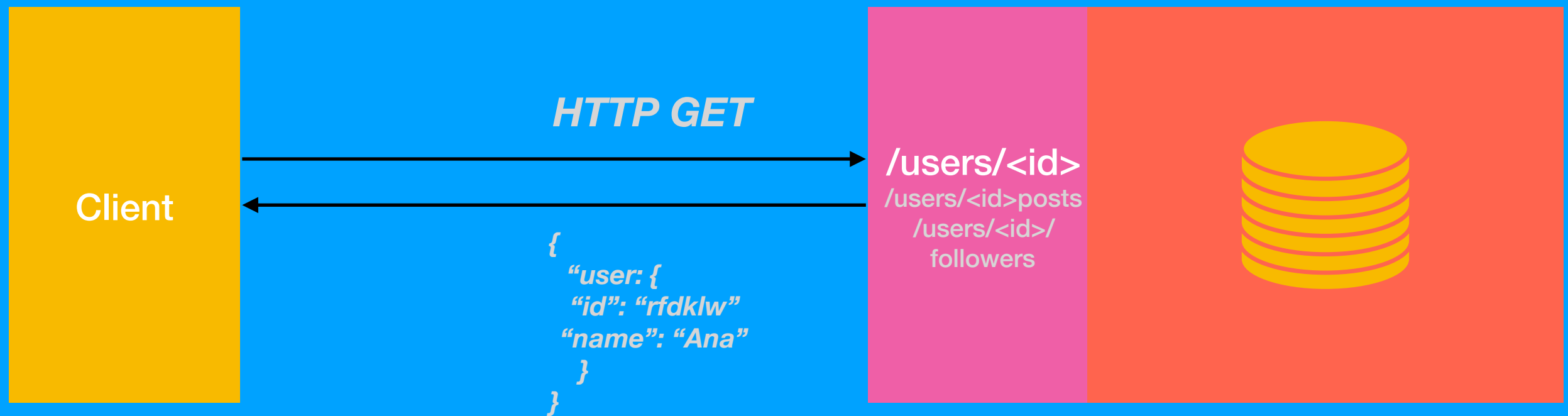


*API - Application Programming Interface*

# Why GraphQL?

## REST

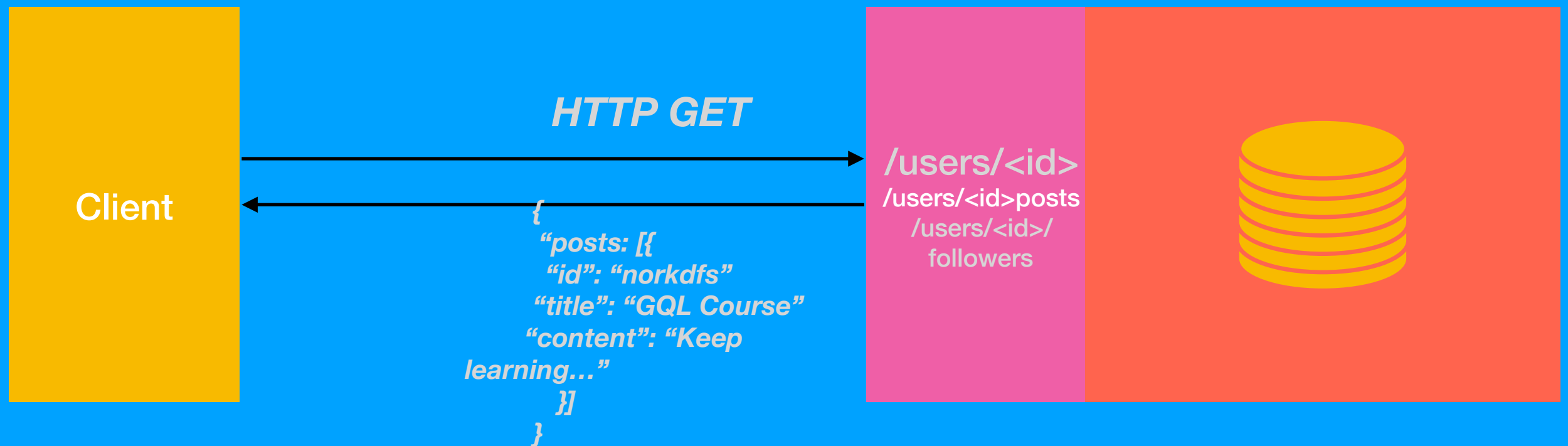
*What's really going inside?*



# Why GraphQL?

## REST

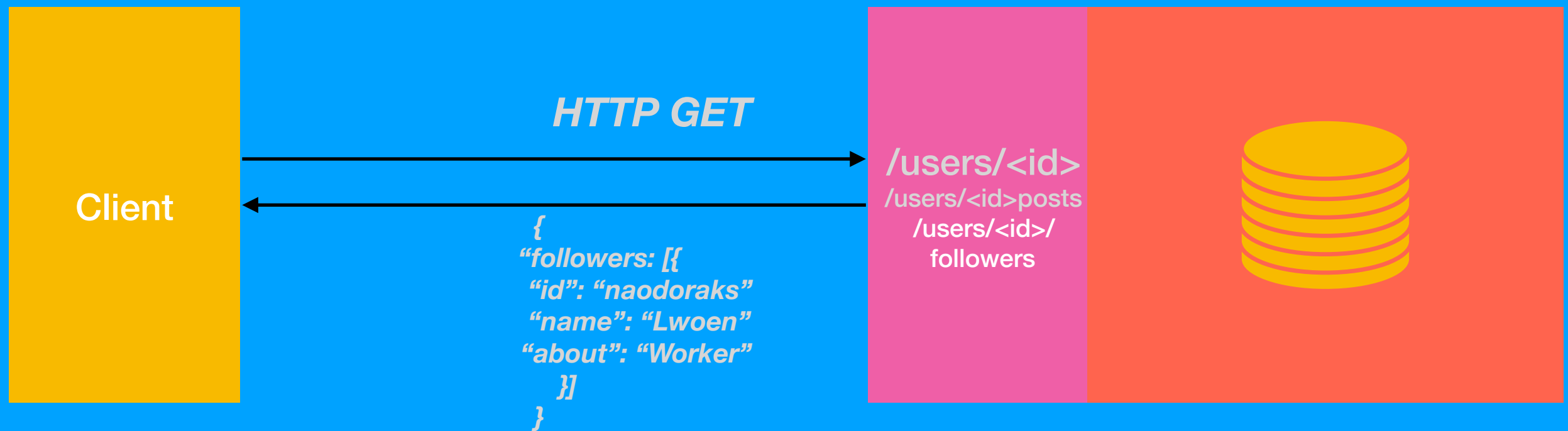
*What's really going on inside?*



# Why GraphQL?

## REST

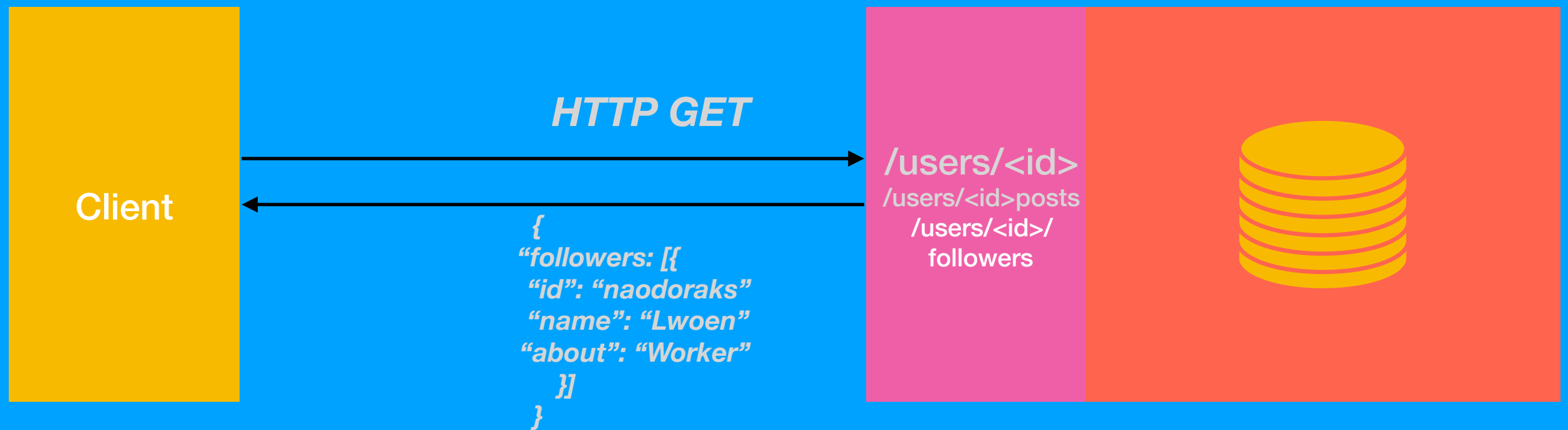
*What's really going on inside?*



# Why GraphQL?

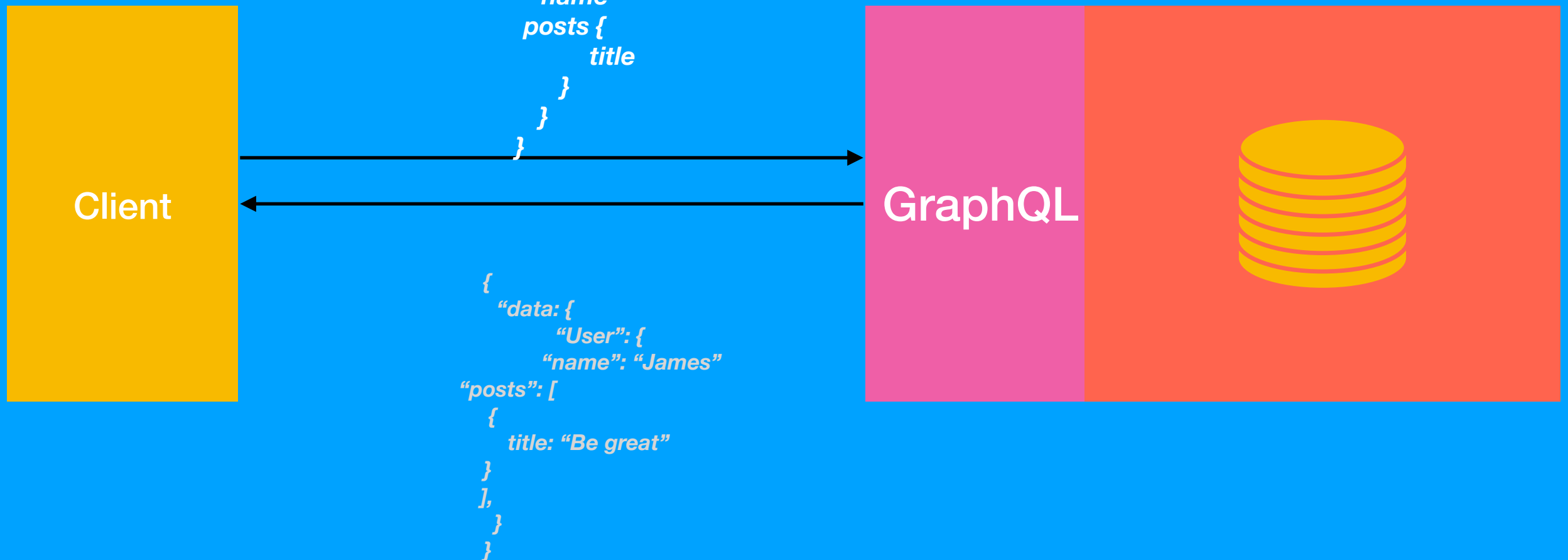
See a pattern?

*Lot's of unnecessary requests to different endpoints!*



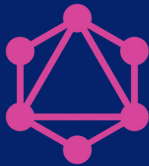
# Why GraphQL?

GraphQL solves this  
issue!



# Why GraphQL?

## Facebook Created this New Data Query Language



```
{
  user(id: 4802170) {
    id
    name
    isViewerFriend
    profilePicture(size: 50) {
      uri
      width
      height
    }
    friendConnection(first: 5) {
      totalCount
      friends {
        id
        name
      }
    }
  }
}
```

```
{
  "data": {
    "user": {
      "id": "4802170",
      "name": "Lee Byron",
      "isViewerFriend": true,
      "profilePicture": {
        "uri": "cdn://pic/4802170/50",
        "width": 50,
        "height": 50
      }
    },
    "friendConnection": {
      "totalCount": 13,
      "friends": [
        {
          "id": "305249",
          "name": "Stephen Schwink"
        },
        {
          "id": "3108935",
          "name": "Nathaniel Roman"
        }
      ]
    }
  }
}
```

# (Graph)QL as a Whole



In Graph Theory, this is called a *directed graph*.

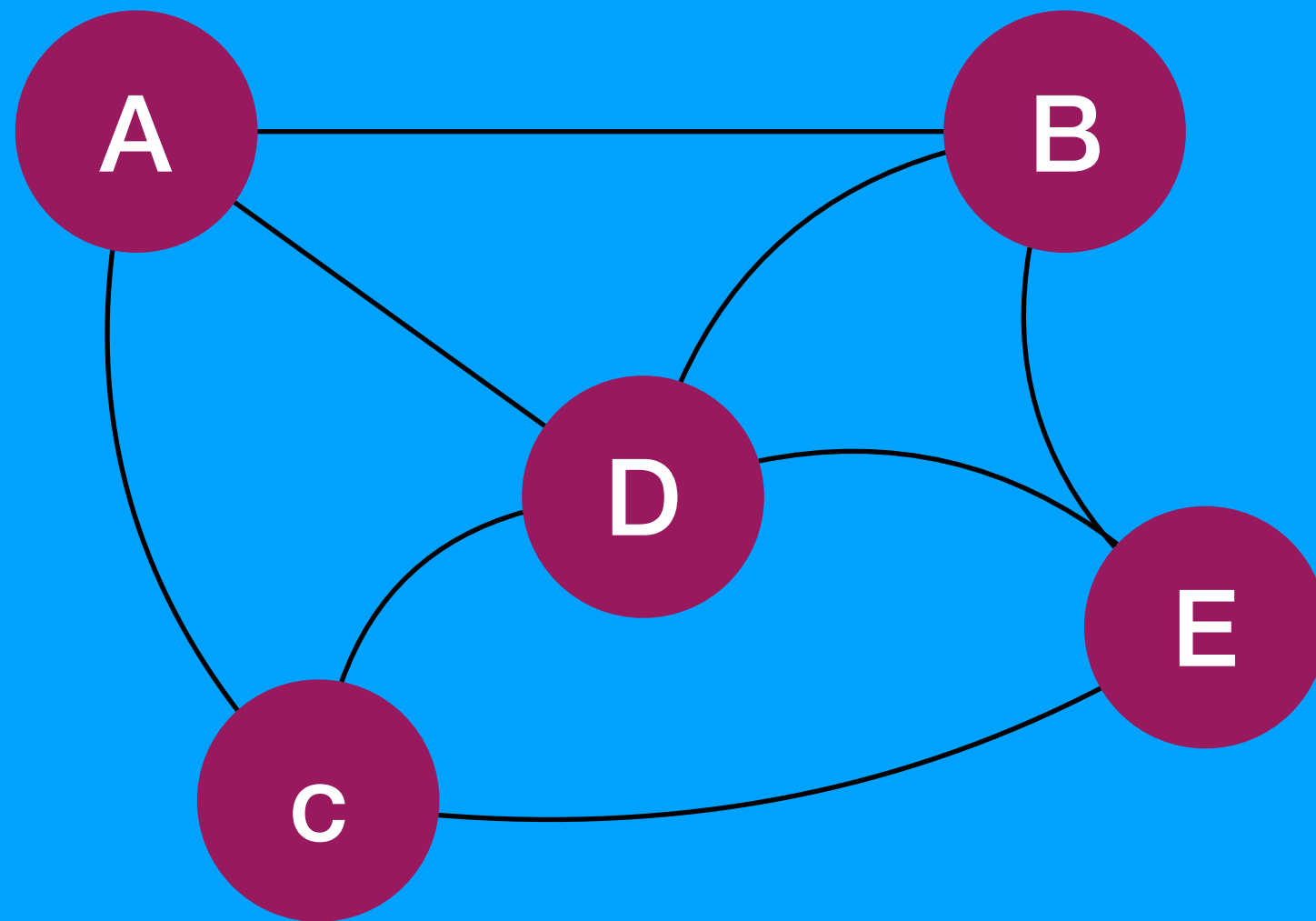




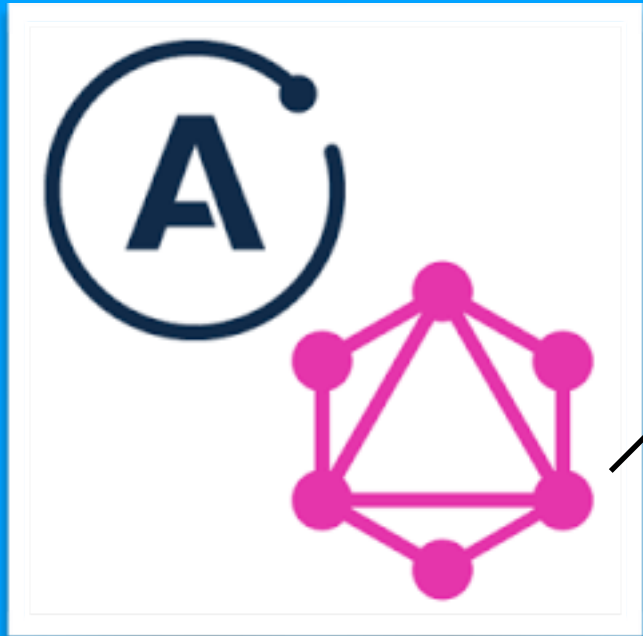
In Graph Theory, this is called a *undirected graph*.



Facebook connections

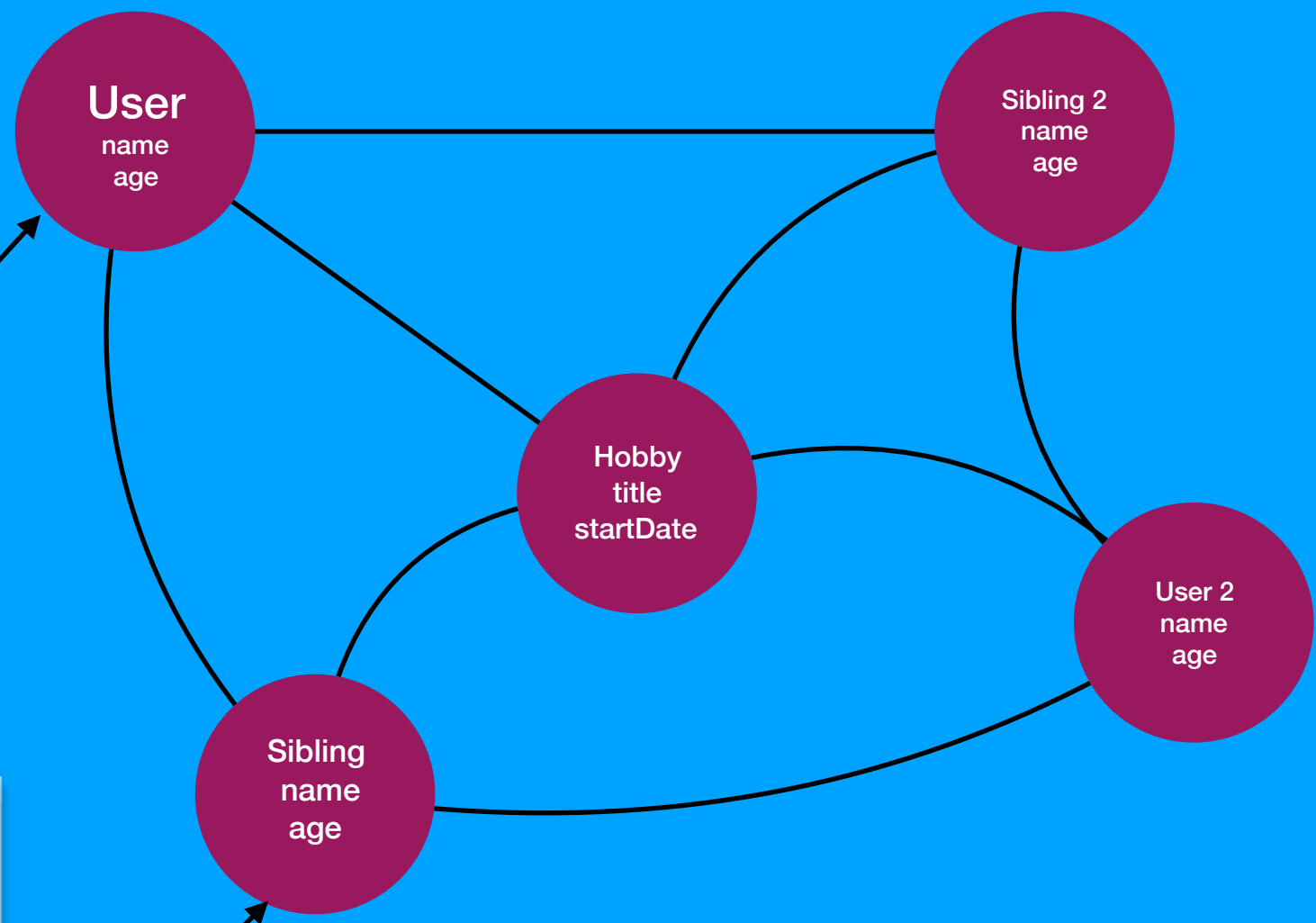


**A Network of connections is now established.**



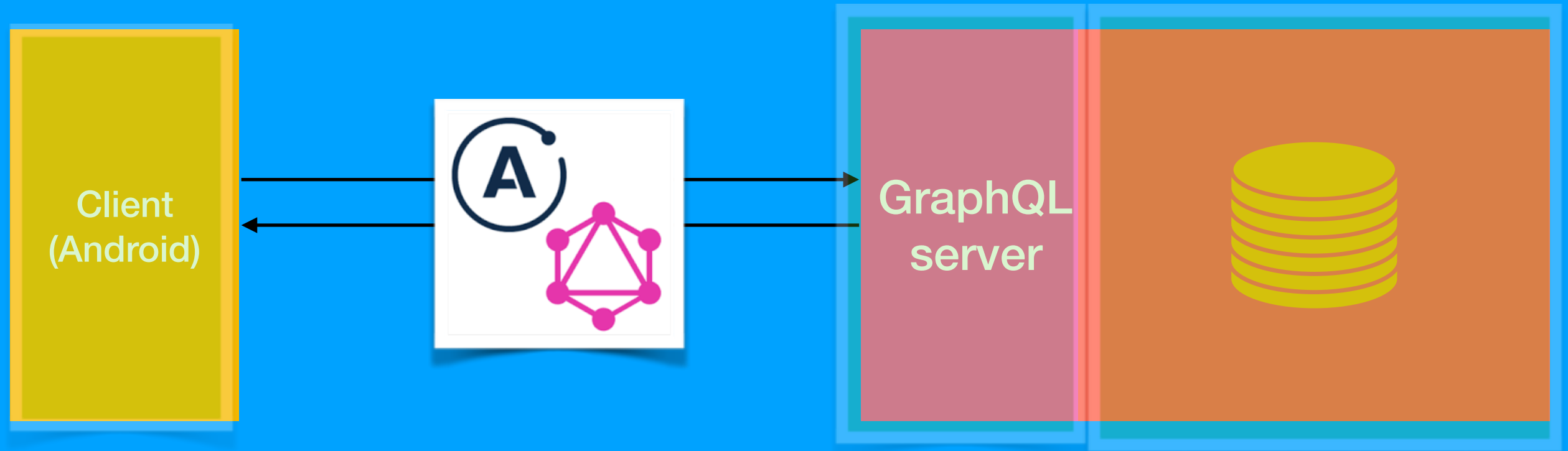
Query

Query

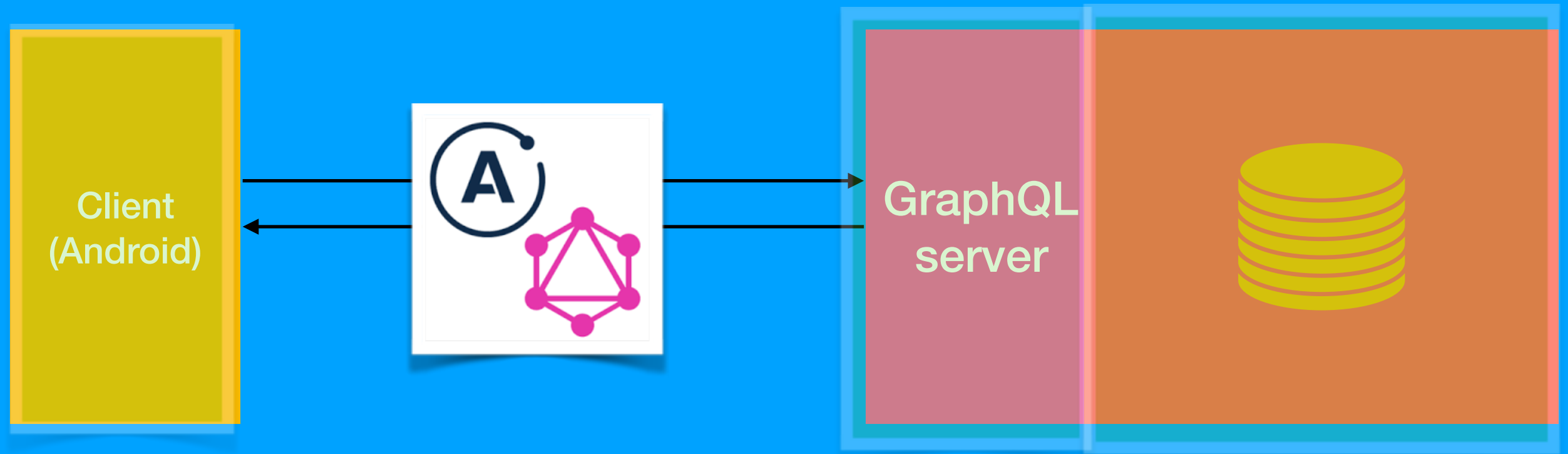


```
{
  User(id:1){
    name
    age
    siblings {
      id
      name
      age
      hobby {
        title
      }
    }
  }
}
```

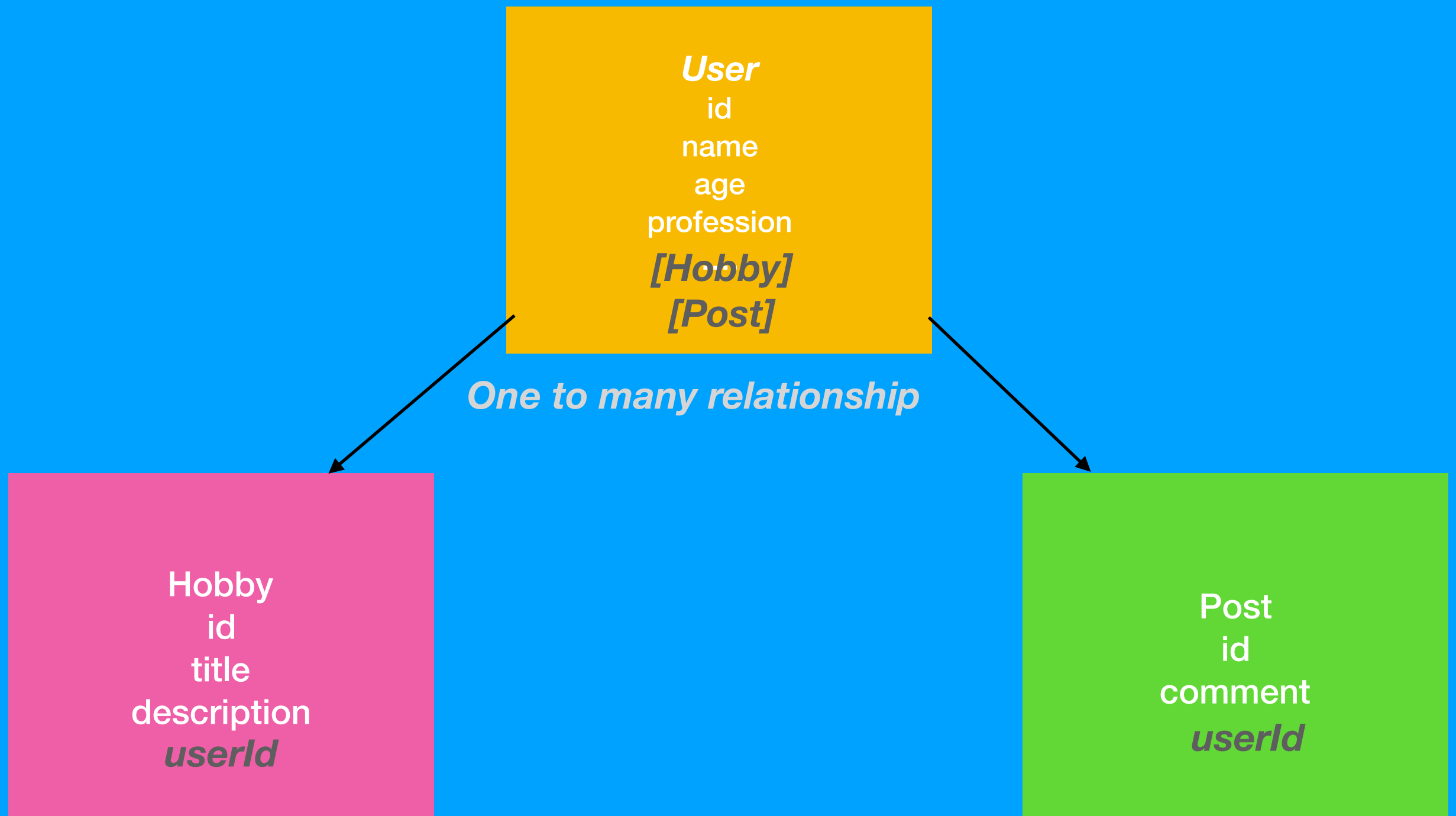
# Learning Path



# Learning Path



# Relationship



# Mutations

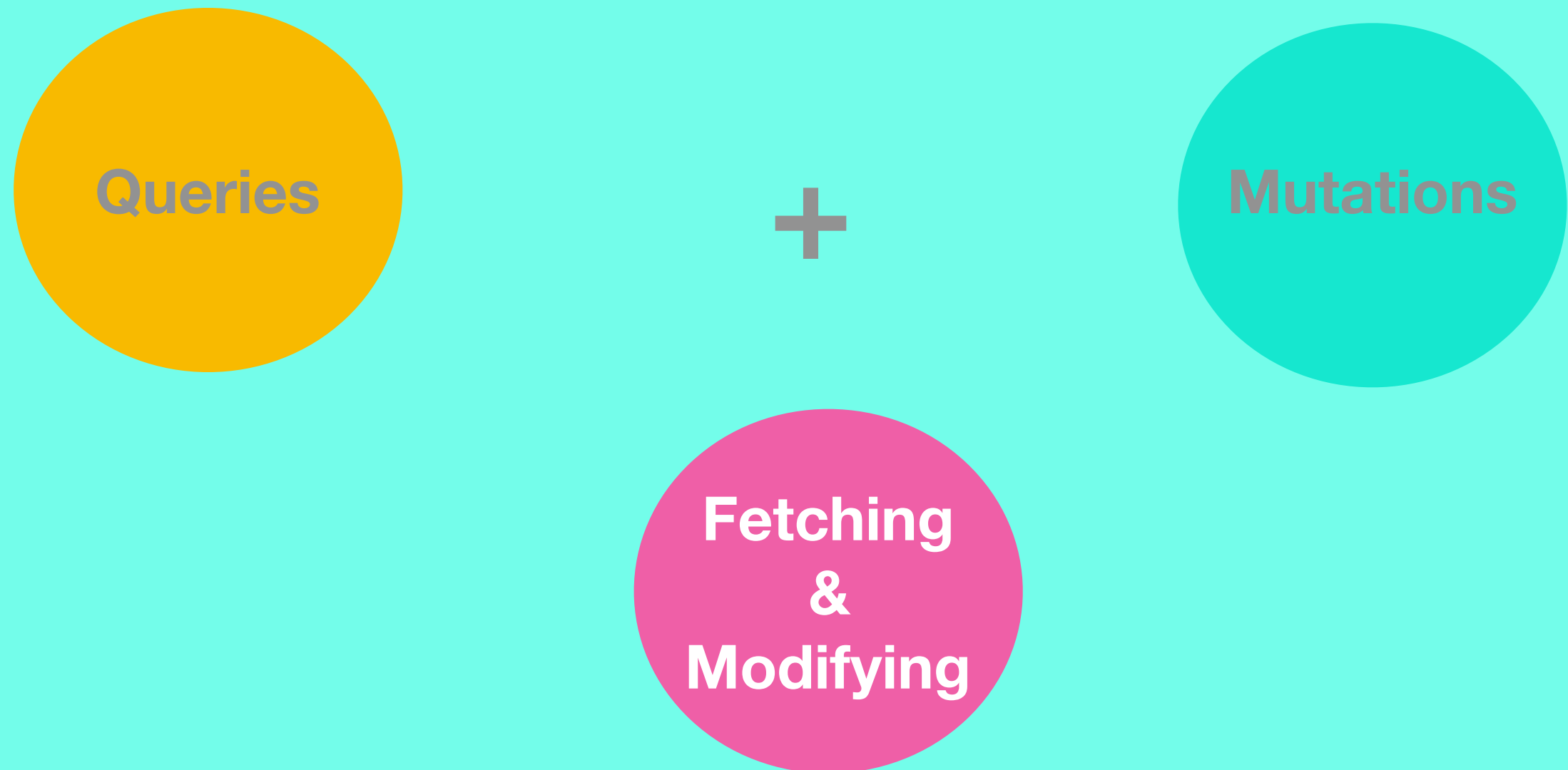
mu·tate

/'myʊtāt/

*verb*

1.change or cause to change in form or nature.

# Mutations





# MongoDB



RDBMS



MongoDB

# (Relational)DBMS



RDBMS

Relational Database Management Systems

Table

Rows

Columns

# (Relational)DBMS

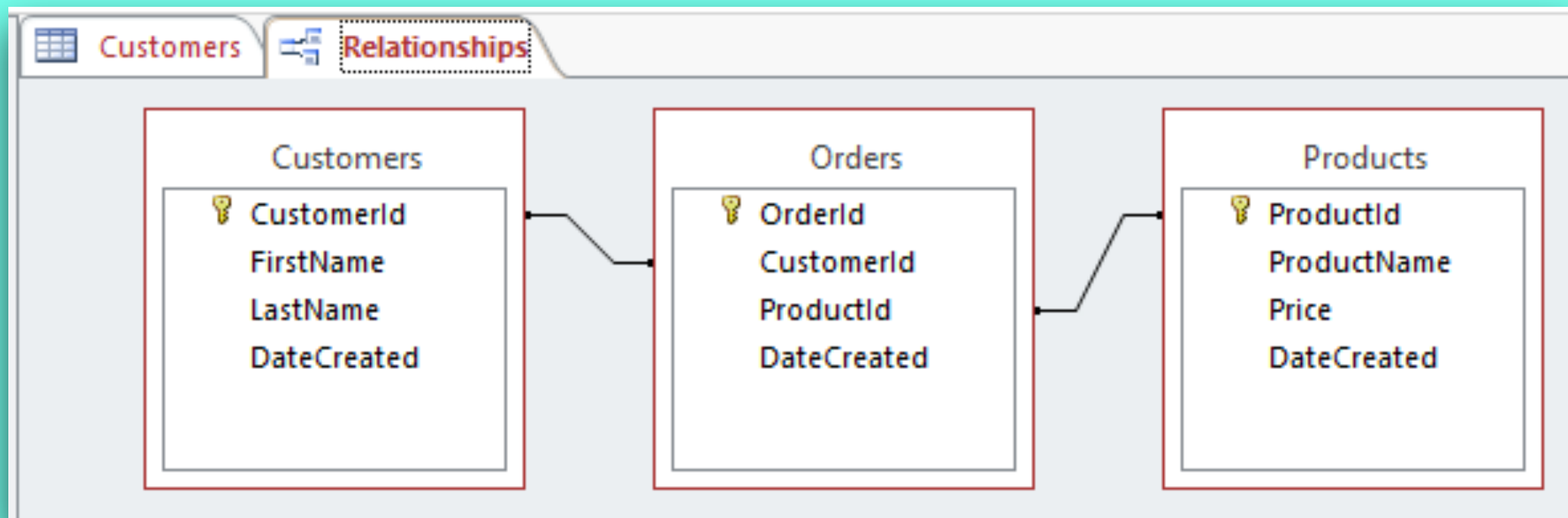
RDBMS

Relational Database Management Systems

Table

Rows

Columns



# MongoDB

The MongoDB logo is a pink rounded rectangle with the text "MongoDB" in white.

**Collections = Document 1, Document 1....**

```
{
  _id: ObjectId(7df78ad8902c)
  title: 'GraphQL and Android',
  description: 'Should take this course and share',
  by: 'Paulo Dichone and BuildAppsWithpaulo.com',
  url: 'http://www.buildappswithpaulo.com',
  likes: 100,
  comments: [
    {
      user: 'user1',
      message: 'My first comment',
      dateCreated: new Date(2019,1,20,2,15),
      like: 0
    },
    {
      user: 'user2',
      message: 'My second comments',
      dateCreated: new Date(2011,1,25,7,45),
      like: 5
    }
  ]
}
```