

Project 2 GitHub Hackaton

Four days of creative exploration using the
GitHub GraphQL API as the outset.



Agenda

GitHub Hackaton?!

Talk json to me...

WTF is GraphQL?

Github Access Token

Forming Calls with GraphQL

The Explorer

Starter script

Firestarters

Team up and let's go!



GitHub Hackaton

What does it mean?



GitHack Hackathon

Phishing, Malware, Ransomware, Spoofing, Encryption,
Adware, Denial of Service Threats, Brute Force Attack, Botnets,
Denial of Service, Firewalls, Payload, Black hat,
Trojans, SPAM, Worms, Cloaking



GitHub Hackaton

Uit The Jargon File

HACK_n.

1. Originally a quick job that produces what is needed, but not well.
2. The result of that job.
3. NEAT HACK: A clever technique.
4. REAL HACK: A crock (occasionally affectionate). v.
5. HACK TOGETHER: to throw something together so it will work.
6. To bear emotionally or physically. "I can't hack this heat!"
7. To work on something (typically a program). In specific sense: "What are you doing?" "I'm hacking [GitHub]." In general sense: "What do you do around here?" "We hack [GitHub]."
8. To pull a prank on. See definition 3 and HACKER (def #6).
9. To waste time (as opposed to TOOL). "Watcha up to?" "Oh, just hacking."
10. HACK UP (ON): To hack, but generally implies that the result is meanings 1-2.
11. HACK VALUE: Term used as the reason or motivation for expending effort toward a useless goal, the point being that the accomplished goal is a hack. For example, "I wrote code to read and print roman numerals, which was installed purely for hack value."
12. HAPPY HACKING: A farewell.
13. HOW'S HACKING?: A friendly greeting among hackers.
14. HACK HACK: A somewhat pointless but friendly comment, often used as a farewell.



GitHub Hackaton

"Hacking is creative problem solving." – Joshua Tauberer, hackaton.guide

Four days of creative exploration using the GitHub GraphQL API as the outset. Remember: this is not a contest.. this is a challenge to see what you can achieve in four days!

Goals:

Learn to use GraphQL;

Implement your knowledge of the web;

Build awesome things in teams.



Talk json to me...





IT'S J SON...

A still from the TV show 'The Walking Dead' featuring Rick Grimes and his son Carl Grimes. Rick is on the right, looking distressed with a bloody shirt. Carl is on the left, wearing a cowboy hat and looking down. The background is a brick wall with the word 'BLOCK' painted on it.

IT'S JSON CARL

STOP IT DAD

Talk json to me...

JSON (JavaScript Object Notation)

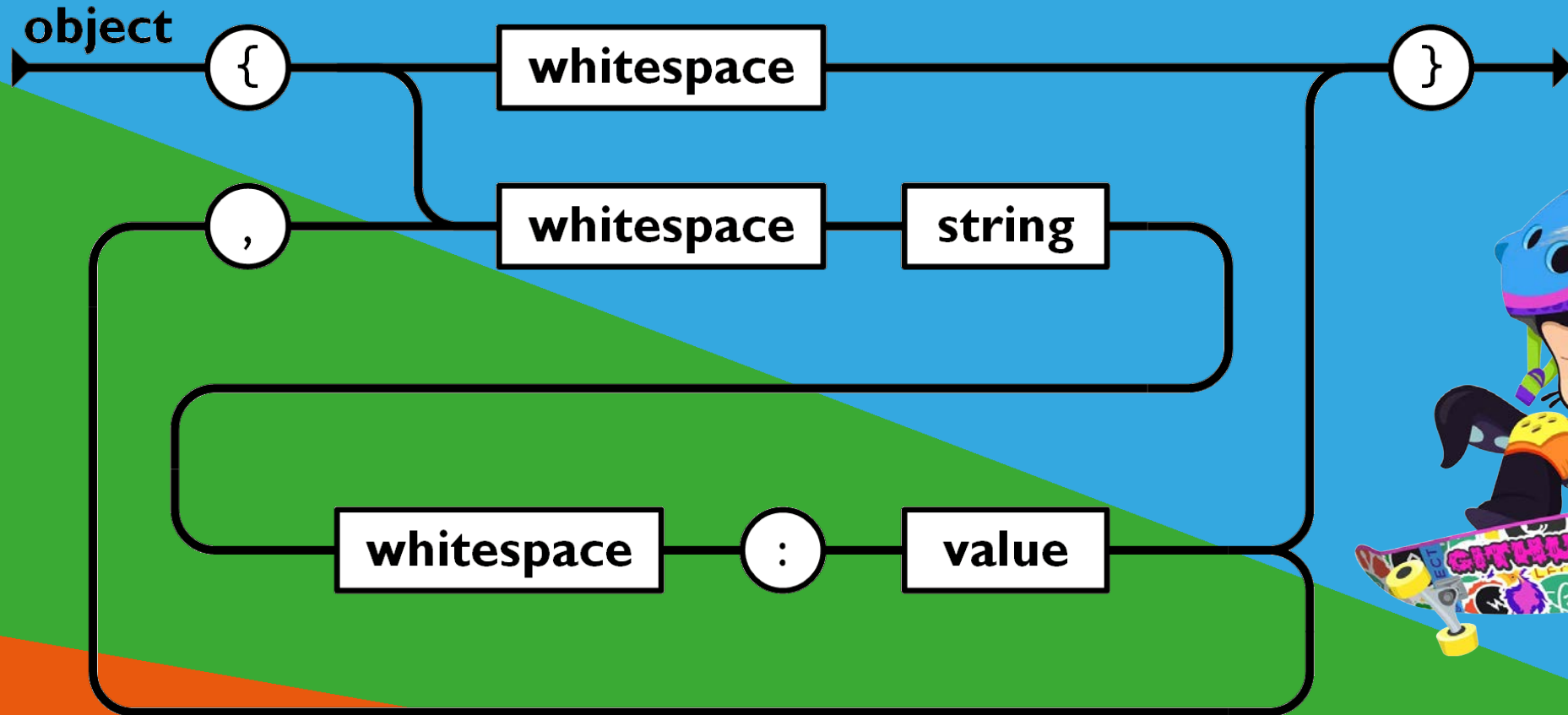
Het is de notatiewijze voor objecten in de taal waar je al een tijdje (iig tijdens de minor) in programmeert...

JSON is gebouwd op twee structuren:

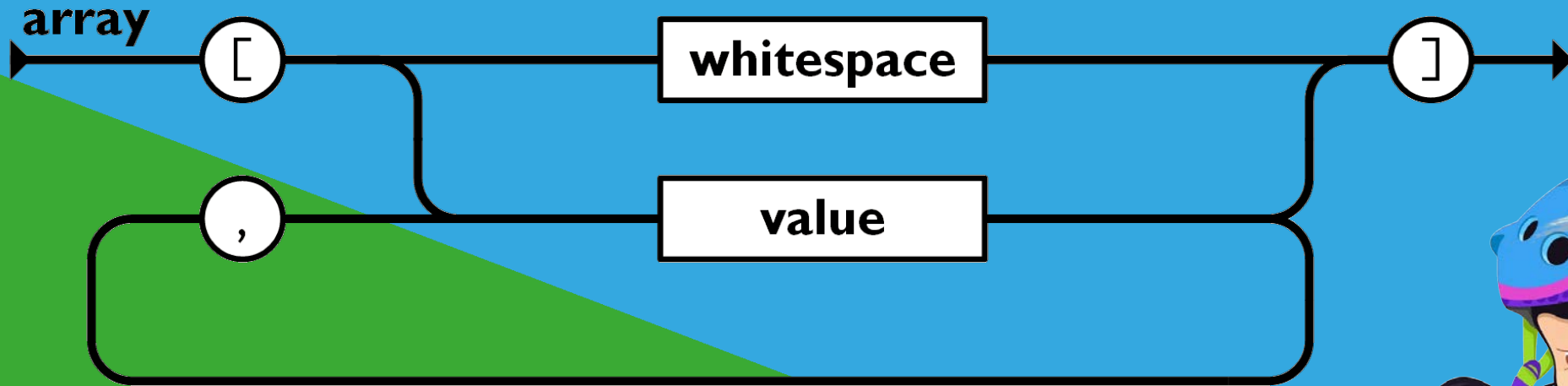
- Een verzameling naam/waarde paren (Object)
- Een geordende lijst met waarden (Array)



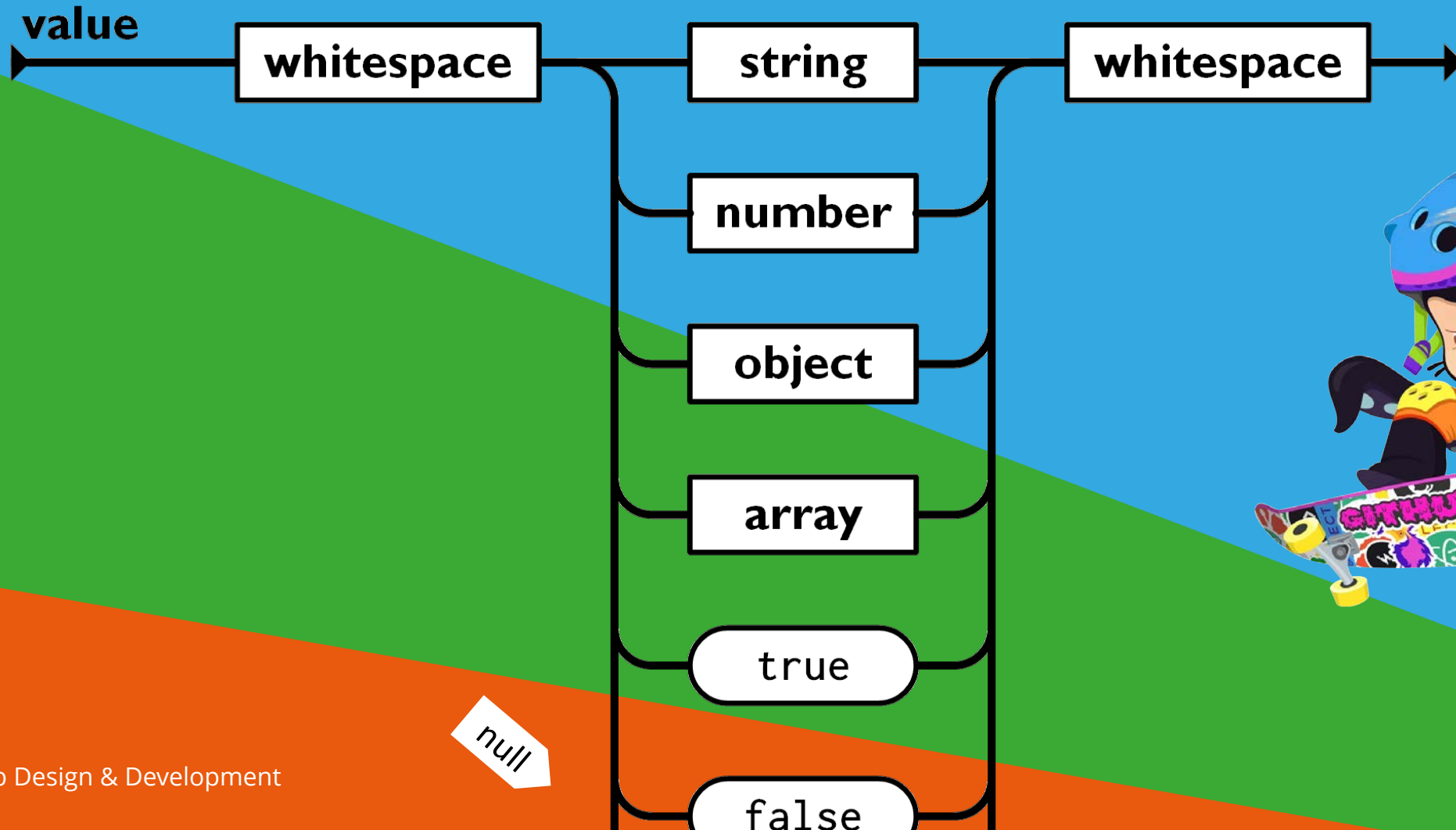
Talk json to me...



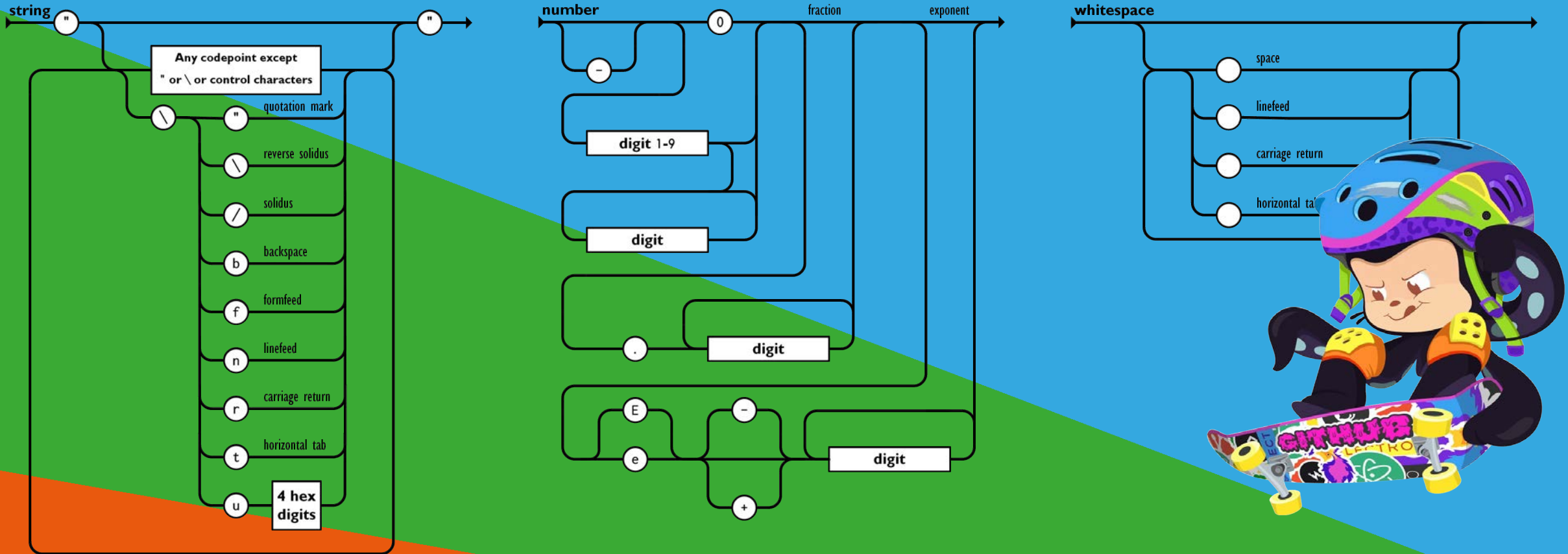
Talk json to me...



Talk json to me...



Talk json to me...



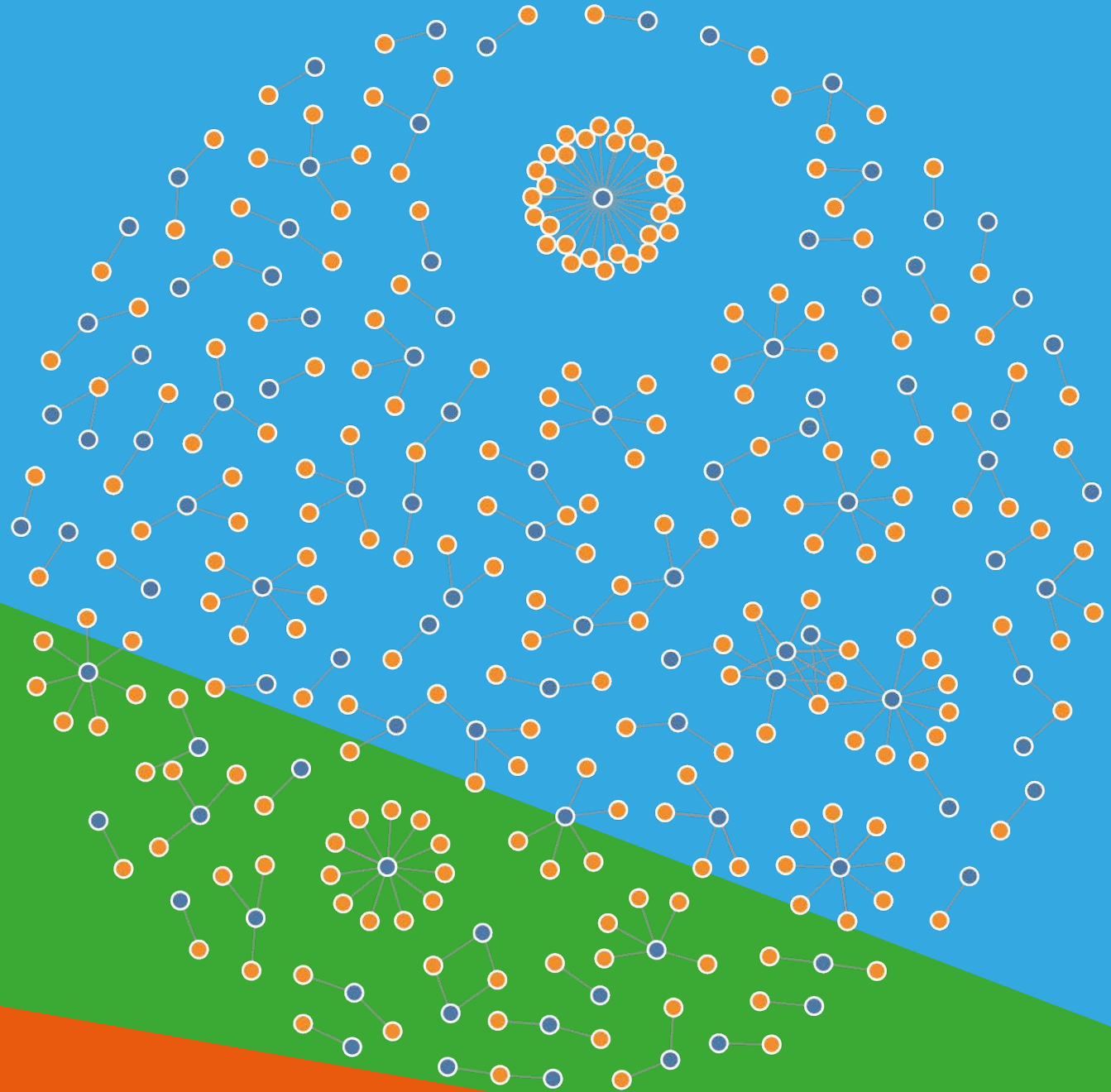
GitHub

What is it?

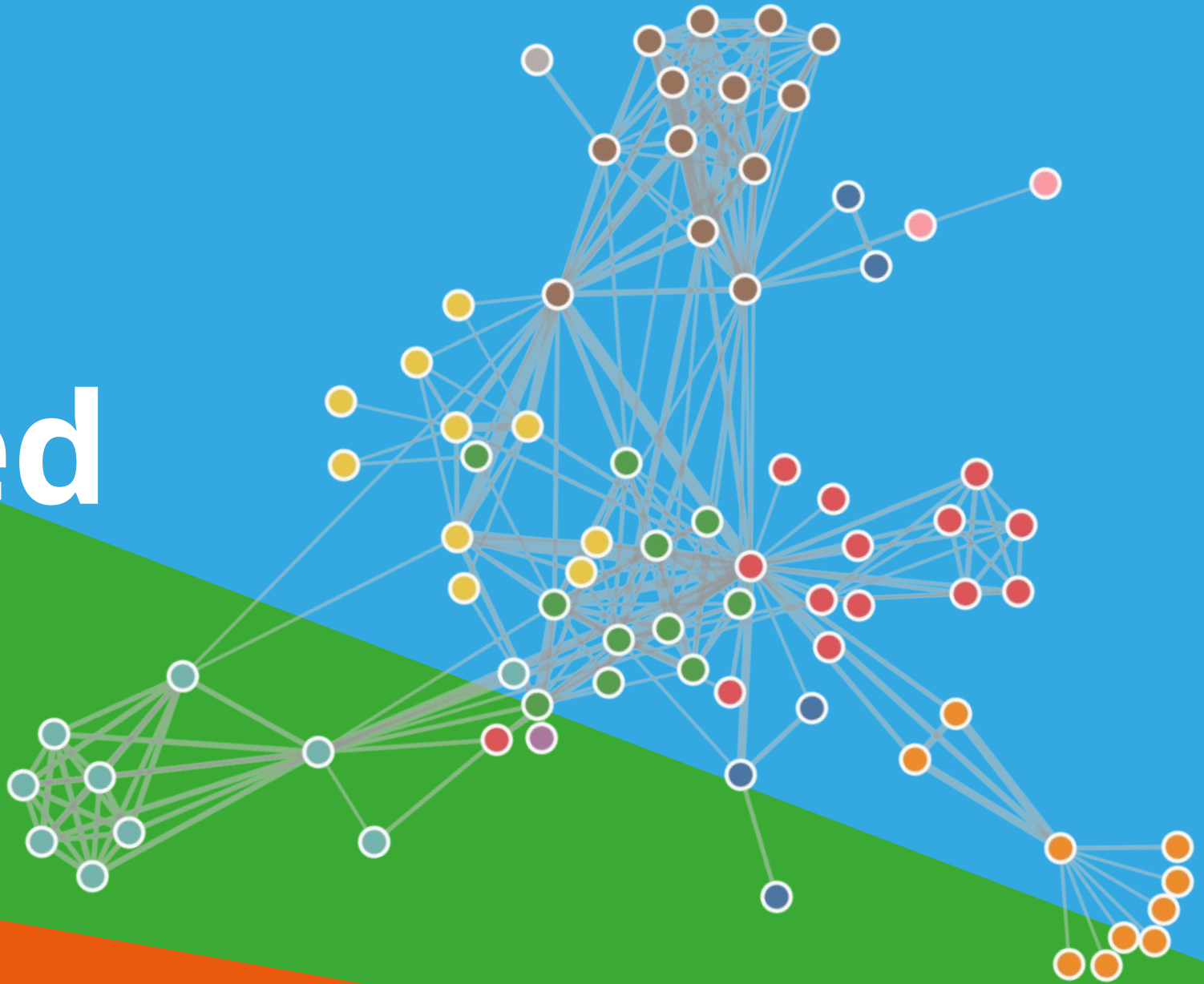


GitHub is a huge dataset

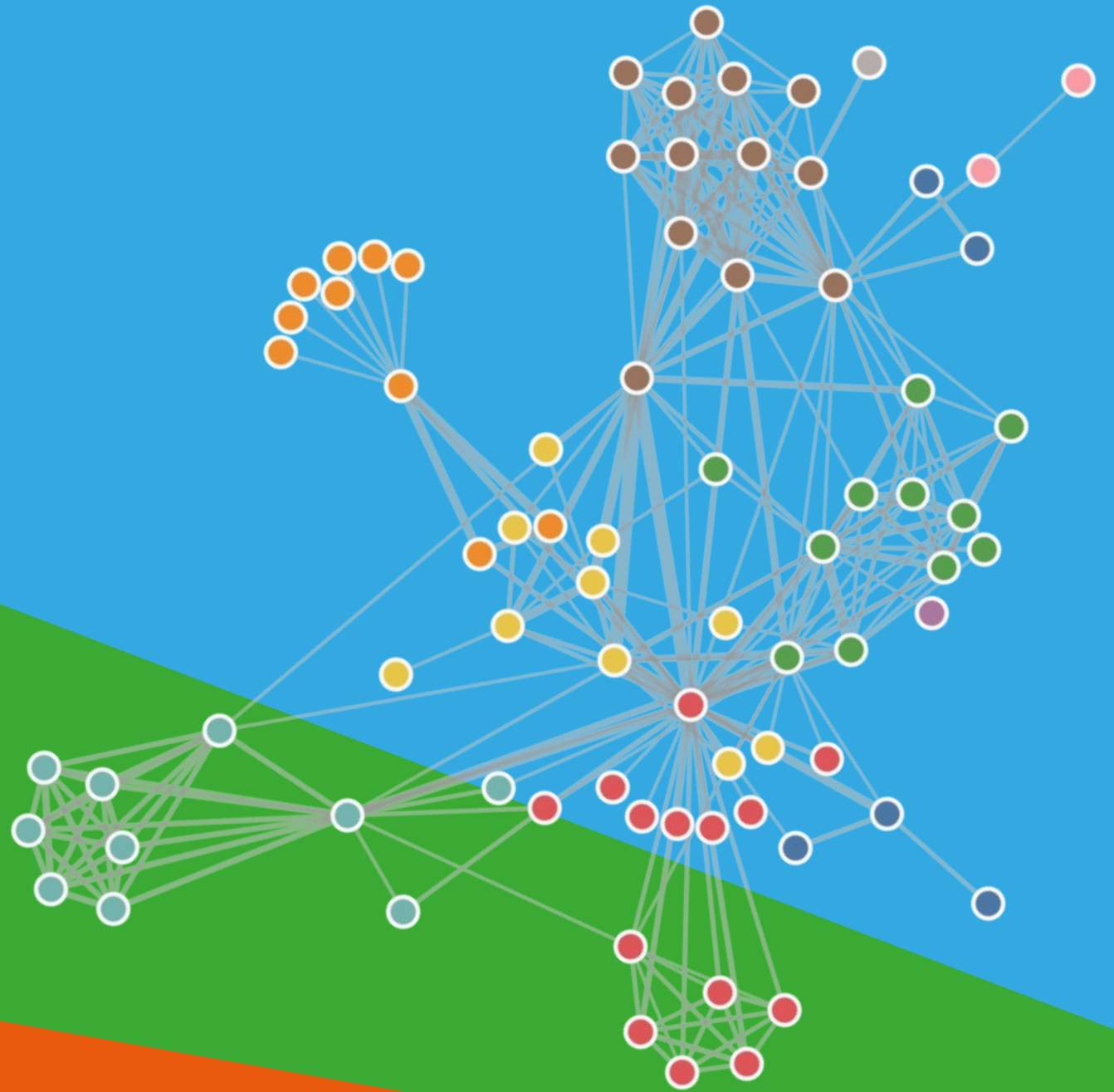
(not only that...)



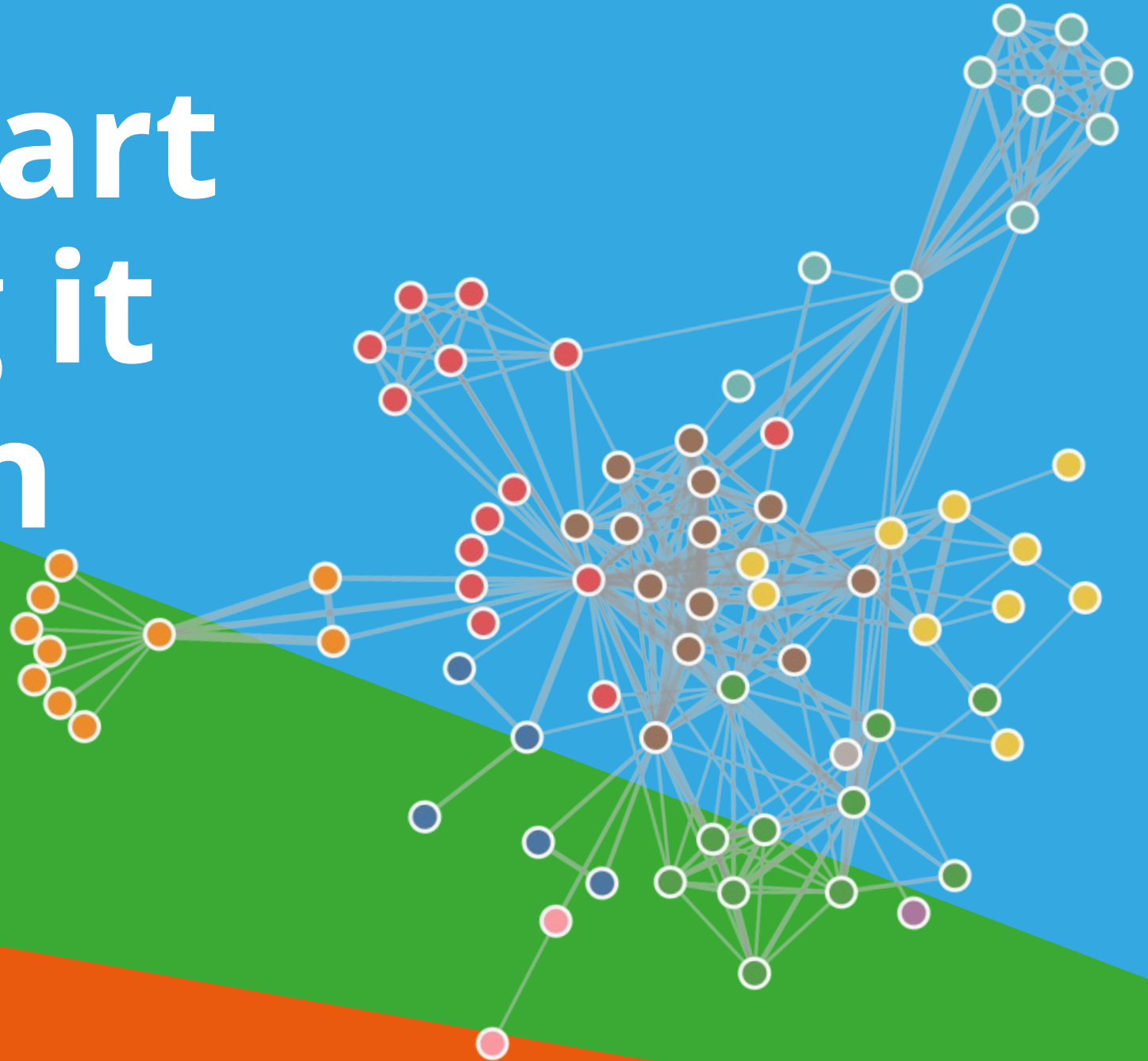
GitHub is a huge connected dataset



GitHub is graphs all the way down



So let's start addressing it as a graph



Enter GraphQL

REST is just a gateway drug, wait
until you've tried GraphQL



WTF is GraphQL?

"GraphQL is a query language for your API, and a server-side runtime for executing queries using a type system you define for your data." - graphql.org/learn/

You put JSON in... you get JSON out...



WTF is GraphQL?

Een GraphQL Query die we straks gaan gebruiken...

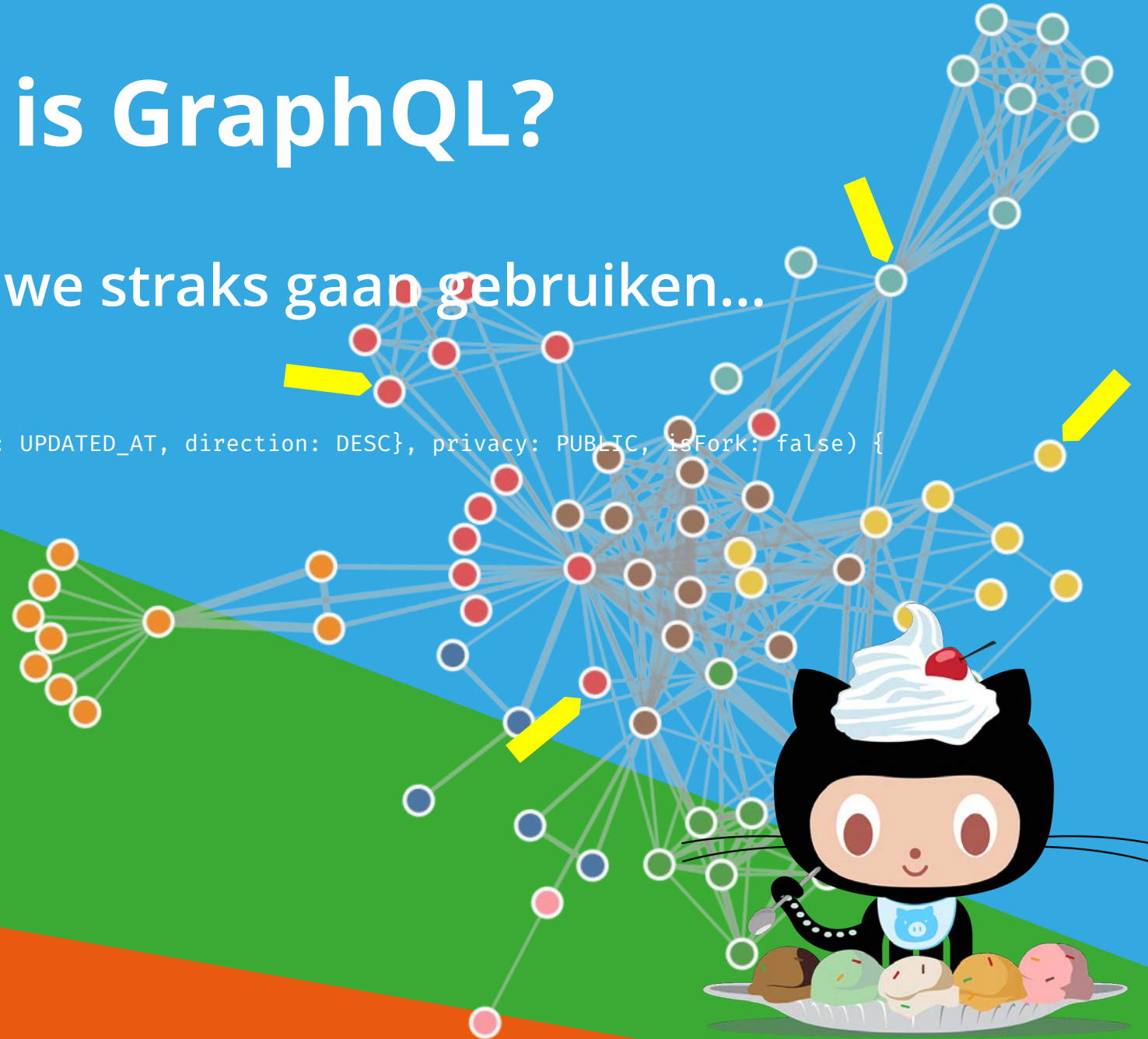
```
{
  user(login: "ju5tu5") {
    repositories(first: 100, orderBy: {field: UPDATED_AT, direction: DESC}, privacy: PUBLIC, isFork: false) {
      edges {
        node {
          name
          url
          description
          updatedAt
          homepageUrl
        }
      }
    }
  }
}
```



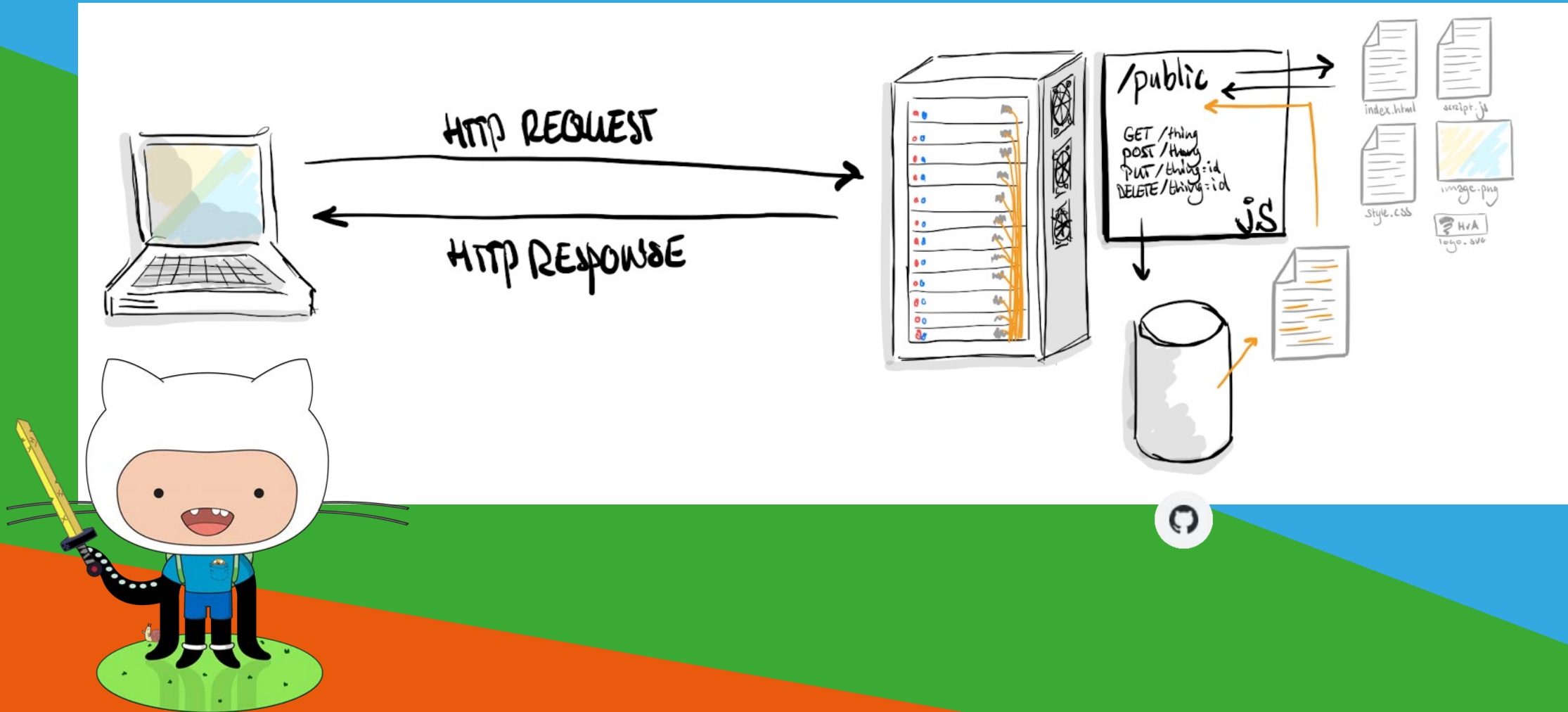
WTF is GraphQL?

Een GraphQL Query die we straks gaan gebruiken...

```
{
  user(login: "ju5tu5") {
    repositories(first: 100, orderBy: {field: UPDATED_AT, direction: DESC}, privacy: PUBLIC, isFork: false) {
      edges {
        node {
          name
          url
          description
          updatedAt
          homepageUrl
        }
      }
    }
  }
}
```



Forming calls with GraphQL



Github Access Token



github.com/settings/profile

Search or jump to... Pull requests Issues Marketplace Explore

Justus Sturkenboom
Your personal account [Switch to another account](#)

Public profile

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- Repositories
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- Pages
- github.com/settings/profile

Public profile

Name
Justus Sturkenboom
Your name may appear around GitHub where you contribute or are mentioned. You can remove it at any time.

Public email
justus@ju5tu5.nl [Remove](#)
You can manage verified email addresses in your [email settings](#).

Bio
Bring something incomprehensible into the world! (Deleuze)
You can @mention other users and organizations to link to them.

URL
http://www.ju5tu5.nl

Twitter username
ju5tu5

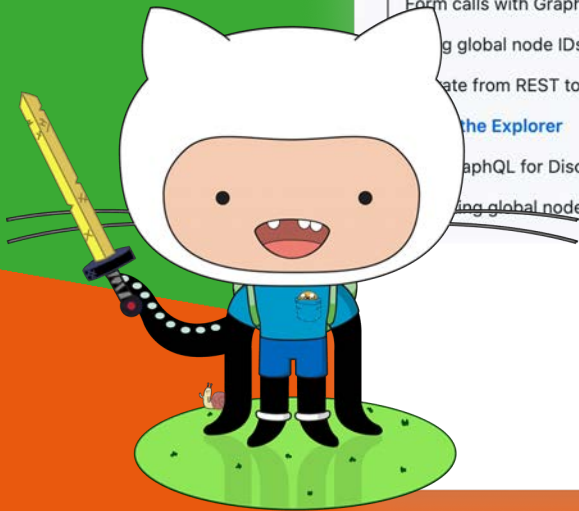
Profile picture
[Edit](#)

Signed in as ju5tu5

- Going to think u...
- Your profile
- Your repositories
- Your codespaces
- Your organizations
- Your projects
- Your stars
- Your gists
- Upgrade
- Feature preview
- Help
- Settings**
- Sign out

click me

The Explorer



Forming calls with GraphQL - x Using the Explorer - GitHub Docs Explorer - GitHub Docs

docs.github.com/en/graphql/guides/using-the-explorer

GraphQL API / Guides / Using the Explorer Free, Pro, & Team English Search topics, products...

Using the Explorer

You can run queries on real GitHub data using the GraphQL Explorer, an integrated development environment in your browser that includes docs, syntax highlighting, and validation errors.

About the GraphQL Explorer

[GraphQL Explorer](#) is an instance of [GraphiQL](#), which is a "graphical interactive in-browser GraphQL IDE."

Note: GitHub has disabled [mutations](#) in the Explorer, but you can use them in your own GraphiQL instance.

Using GraphiQL

To use the GraphiQL app, download and install it from <https://github.com/skevy/graphiql-app>.

In this article

- [About the GraphQL Explorer](#)
- [Using GraphiQL](#)
- [Accessing the sidebar docs](#)
- [Using the variable pane](#)
- [Requesting support](#)
- [Troubleshooting errors](#)

GitHub Docs

← All products

GraphQL API

Overview

Reference

Guides

- Introduction to GraphQL
- Form calls with GraphQL
- g global node IDs
- ate from REST to GraphQL
- [the Explorer](#)
- aphQL for Discussions
- ag global node IDs

click me

Firestarters 🔥

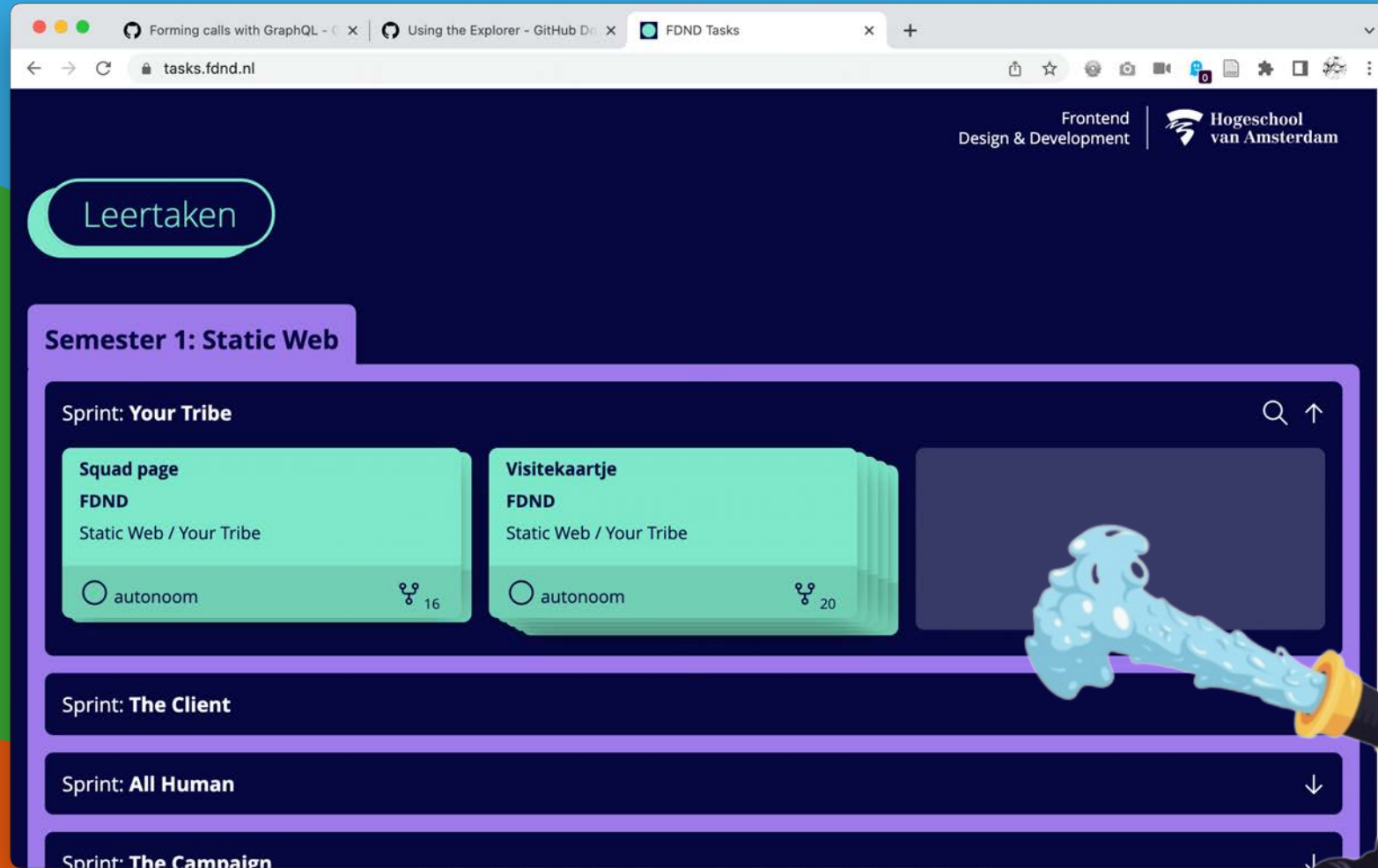
Here are some examples to get you fired up



Starter Script



tasks.fdnd.nl



Other ideas?

- Een automagisch gegenereerde portfoliopagina gebaseerd op jouw GitHub repo's, met gegevens uit de Readme als introductietekst en afbeelding.
- Een overzicht van alle deelnemers aan de minor, met een overzicht (en links) naar al hun repositories.
- Een datavisualisatie van de dagelijks geproduceerde gegevens van alle deelnemers aan de minor, met onderscheid in talen, type bestanden etc.
- Een live-feed van alle commit messages in de minor waarbij automatisch beoordeeld wordt op taalgebruik en kwaliteit van de berichten, met een leaderboard voor de studenten met de beste messages.
- Een discord bot die berichten stuurt als iemand een commit doet.
- Een discord bot waaraan je kunt vragen welke taken er (voor jou) in het project open staan.
- ... iets anders? Pols je idee bij een docent op haalbaarheid.

Team up and let's go!

Team up with two to five minor members

Discuss personal capabilities and (learning)goals

Decide what awesome stuff you'll create (20s pitch in 30m)

We Can Do It!

