



DrupalCon
GLOBAL 2020
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Progressively decoupled Drupal 8 with GraphQL and Twig

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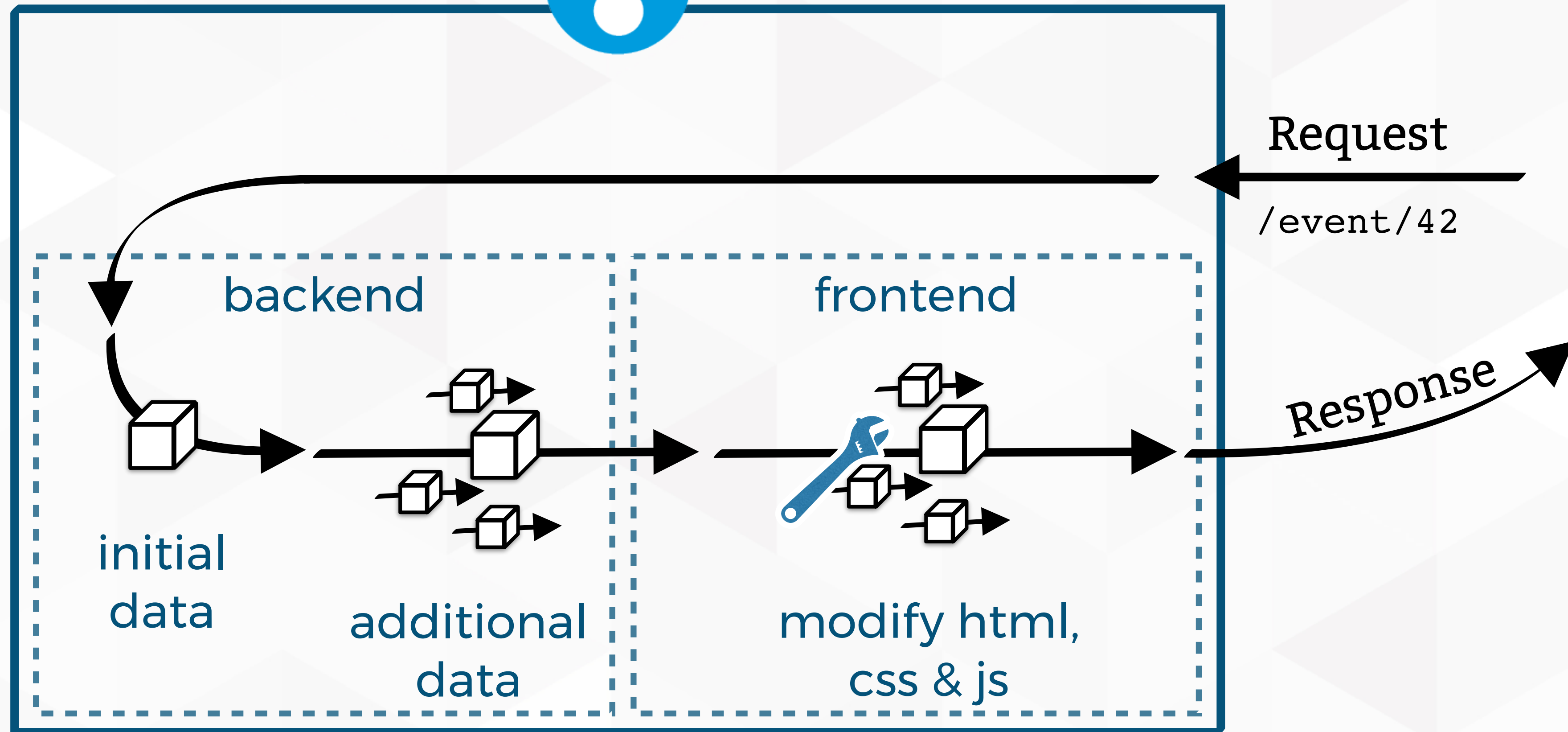


Development & Coding | Front-end Development

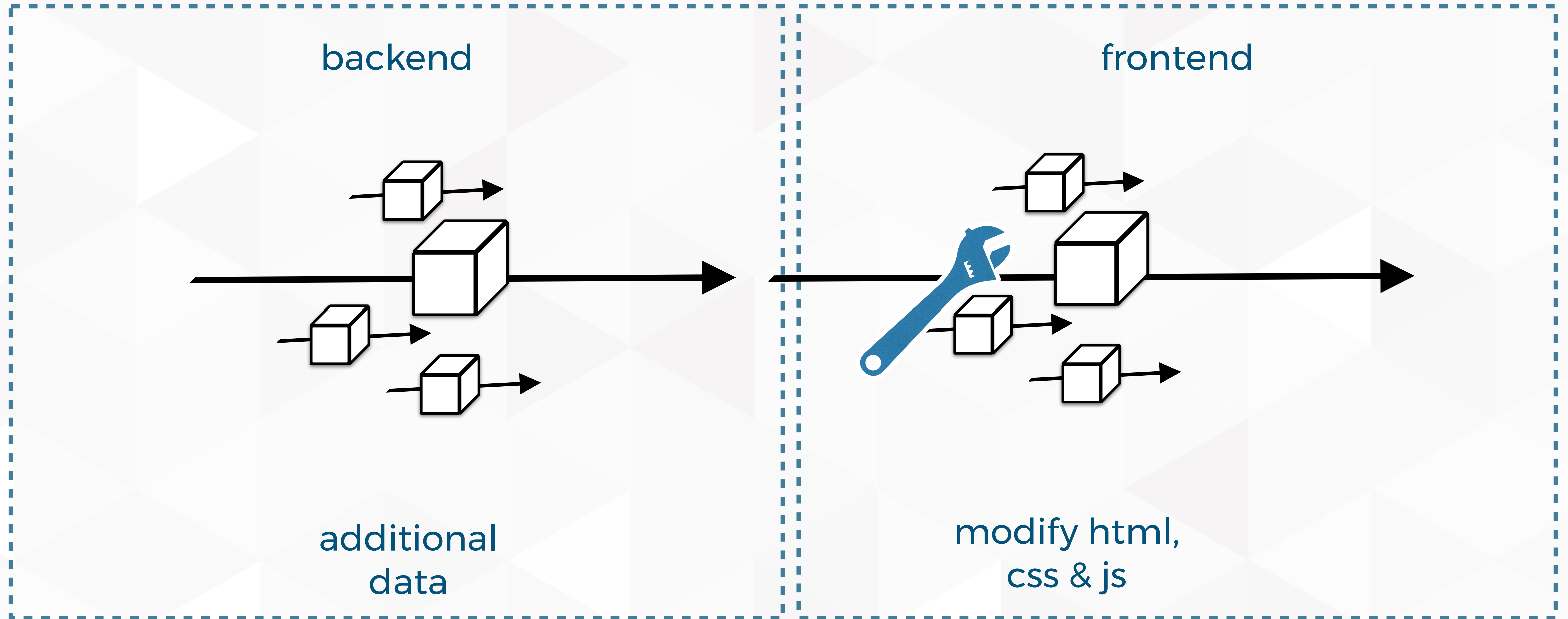


Problems with Push

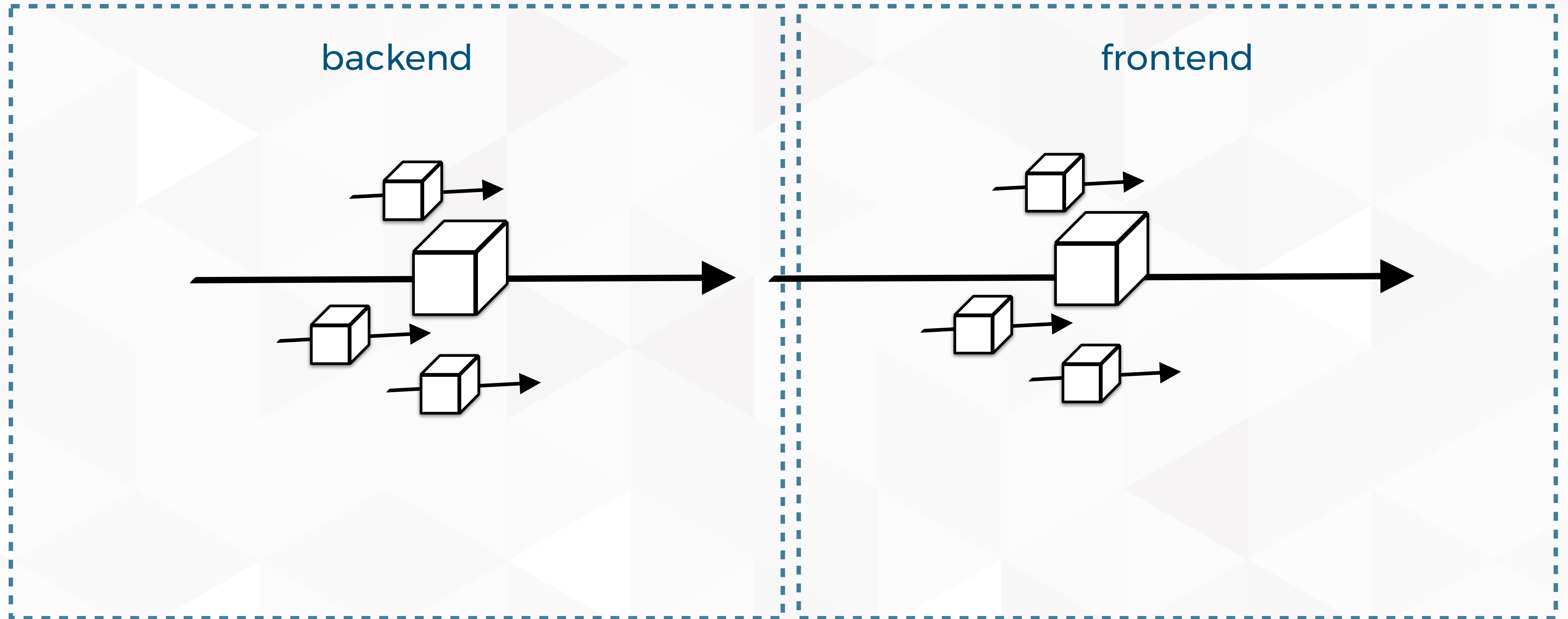
How Drupal Works



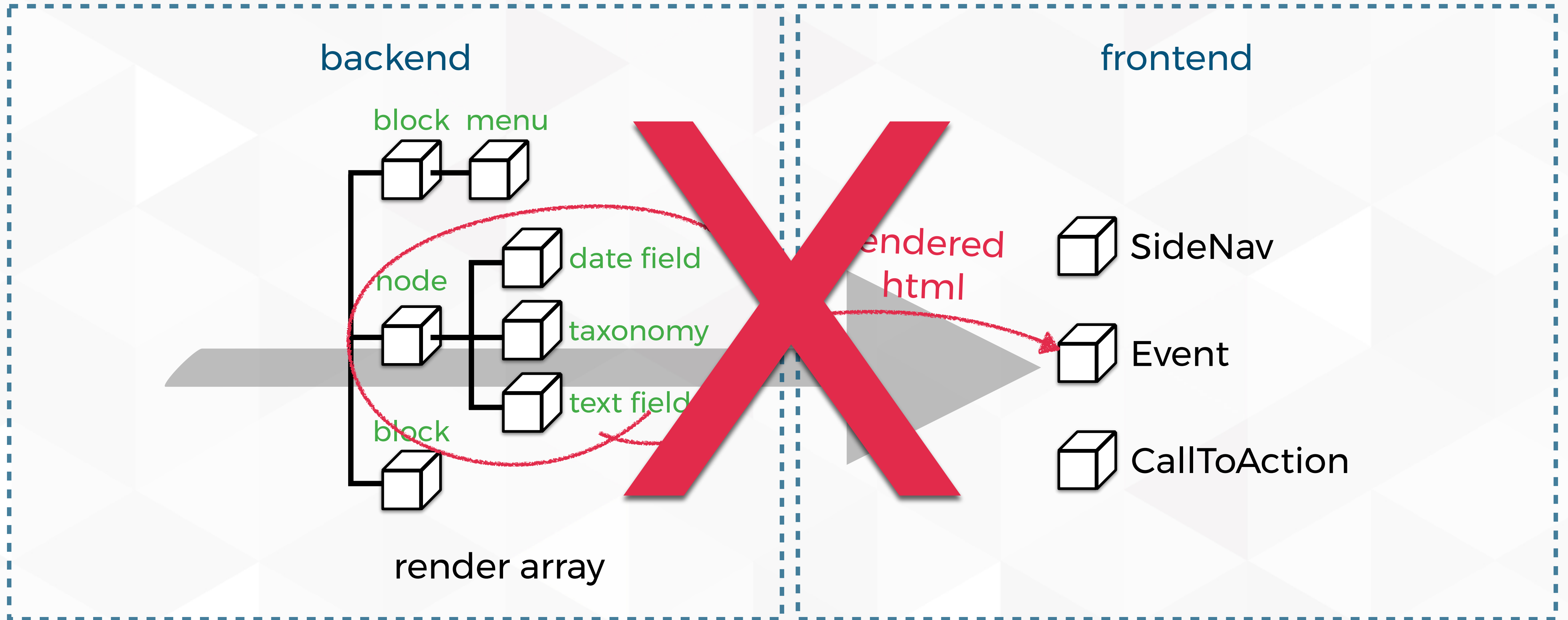
How Drupal Works



How Drupal Works



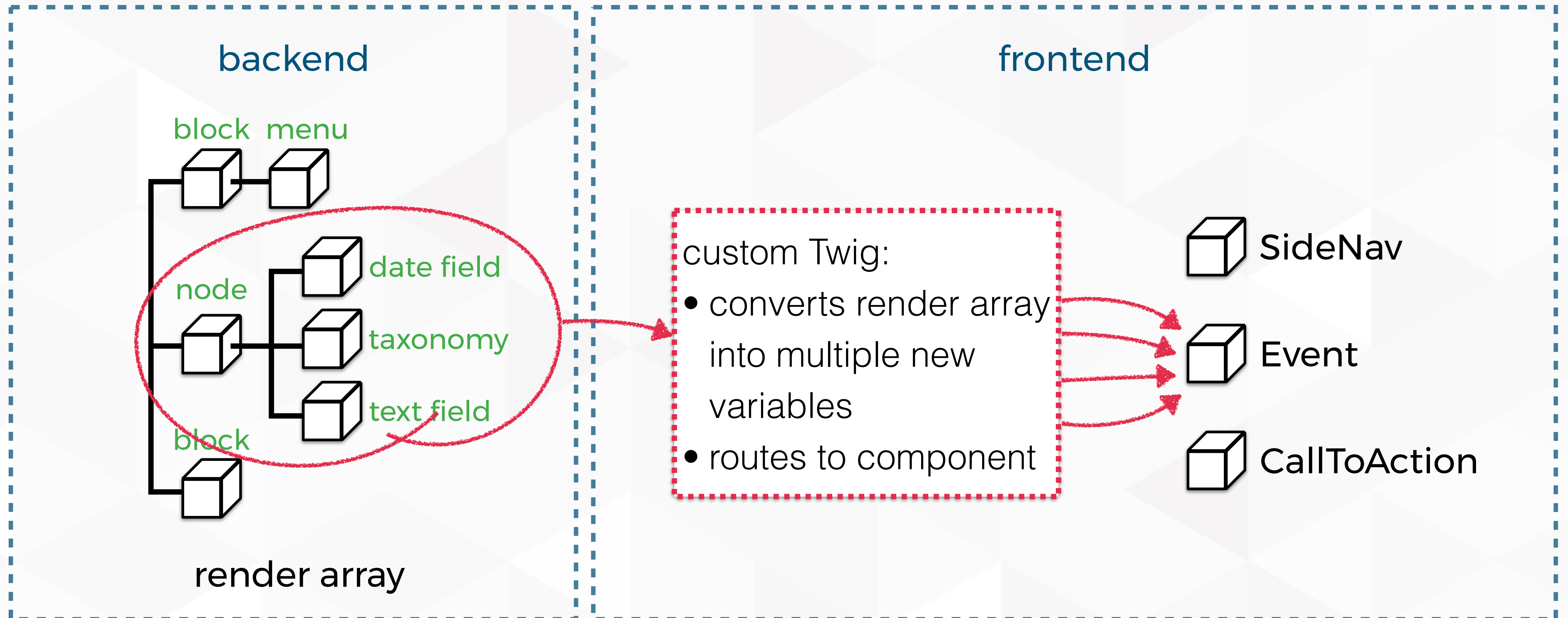
A fundamental mis-match





3 possible solutions...
So far.

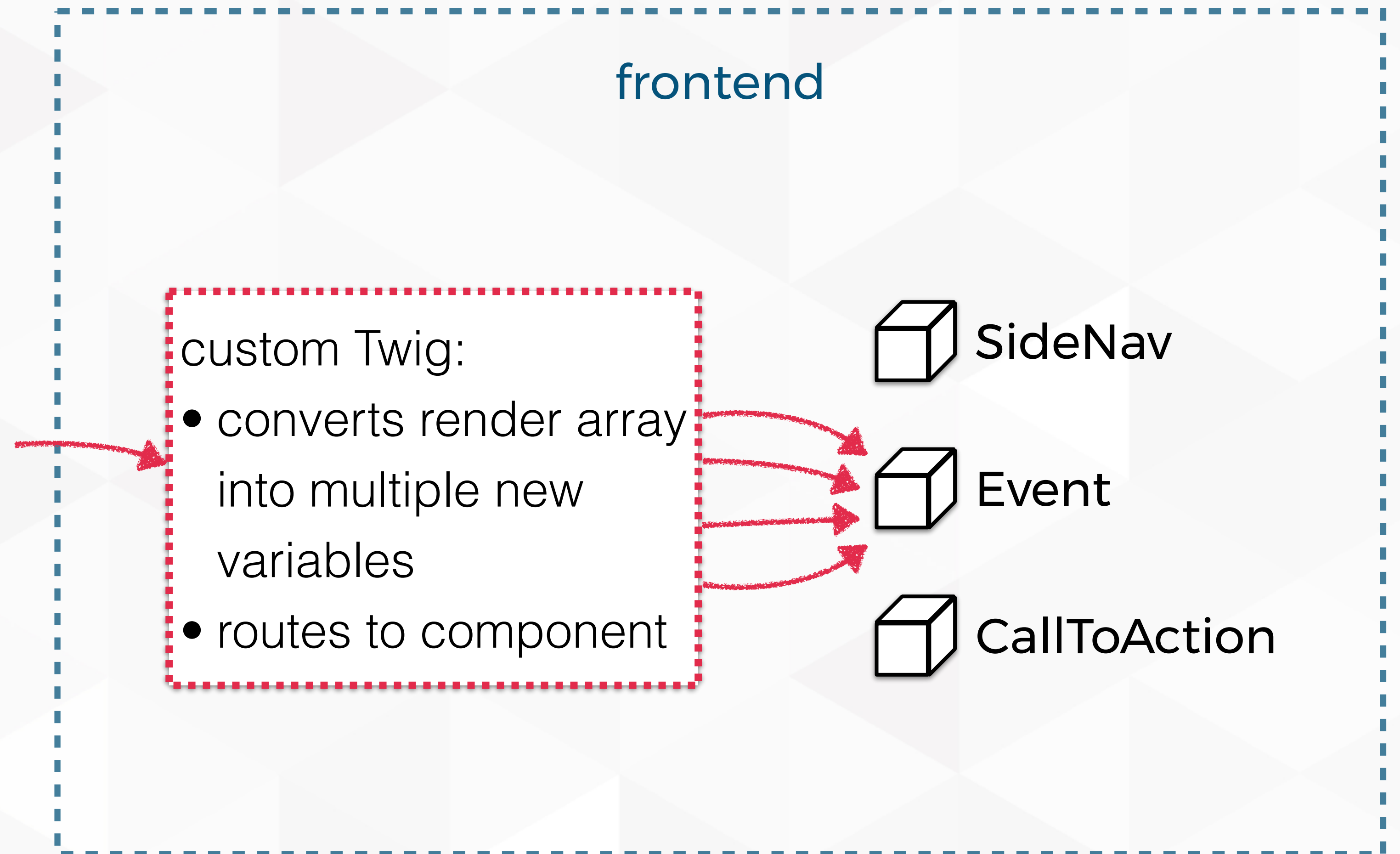
Twig conversion



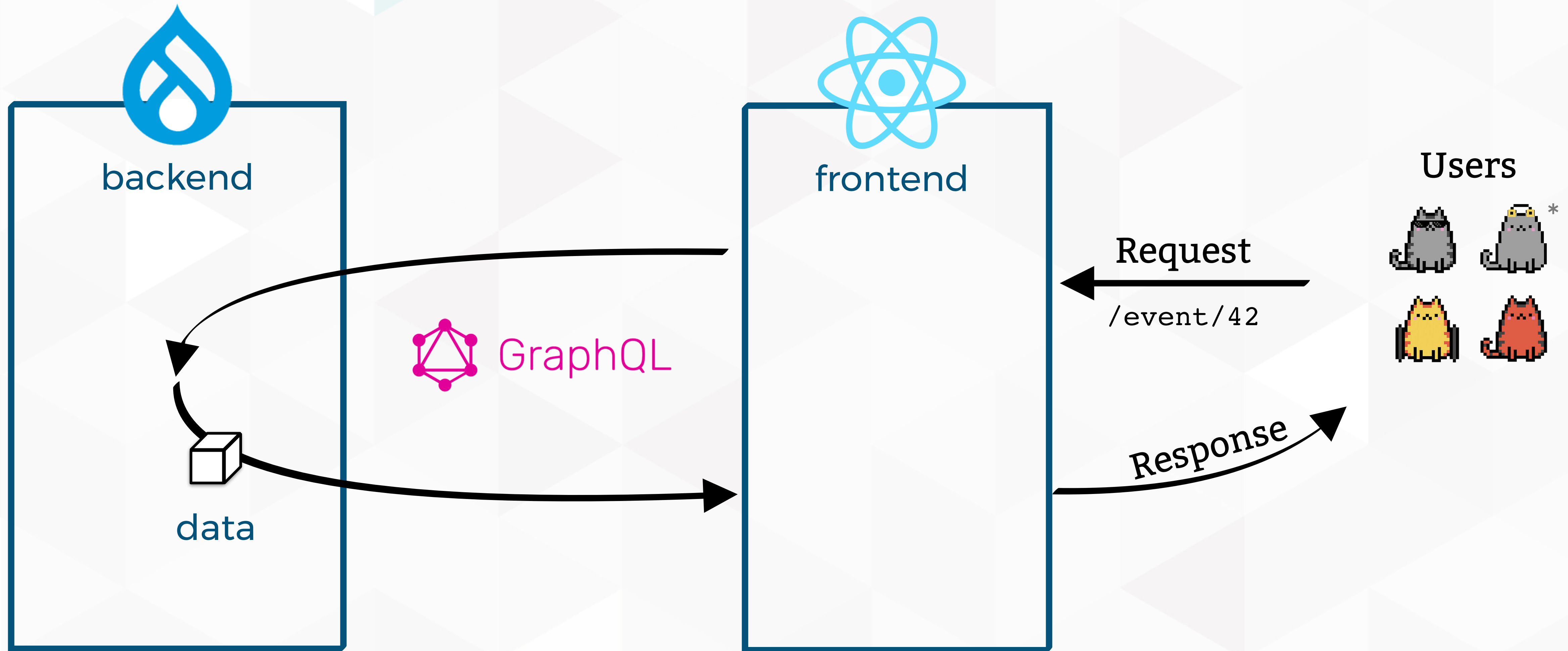
Problems with twig conversion

Problems:

- Requires expert-level Twig knowledge
- Requires expert-level Render API knowledge



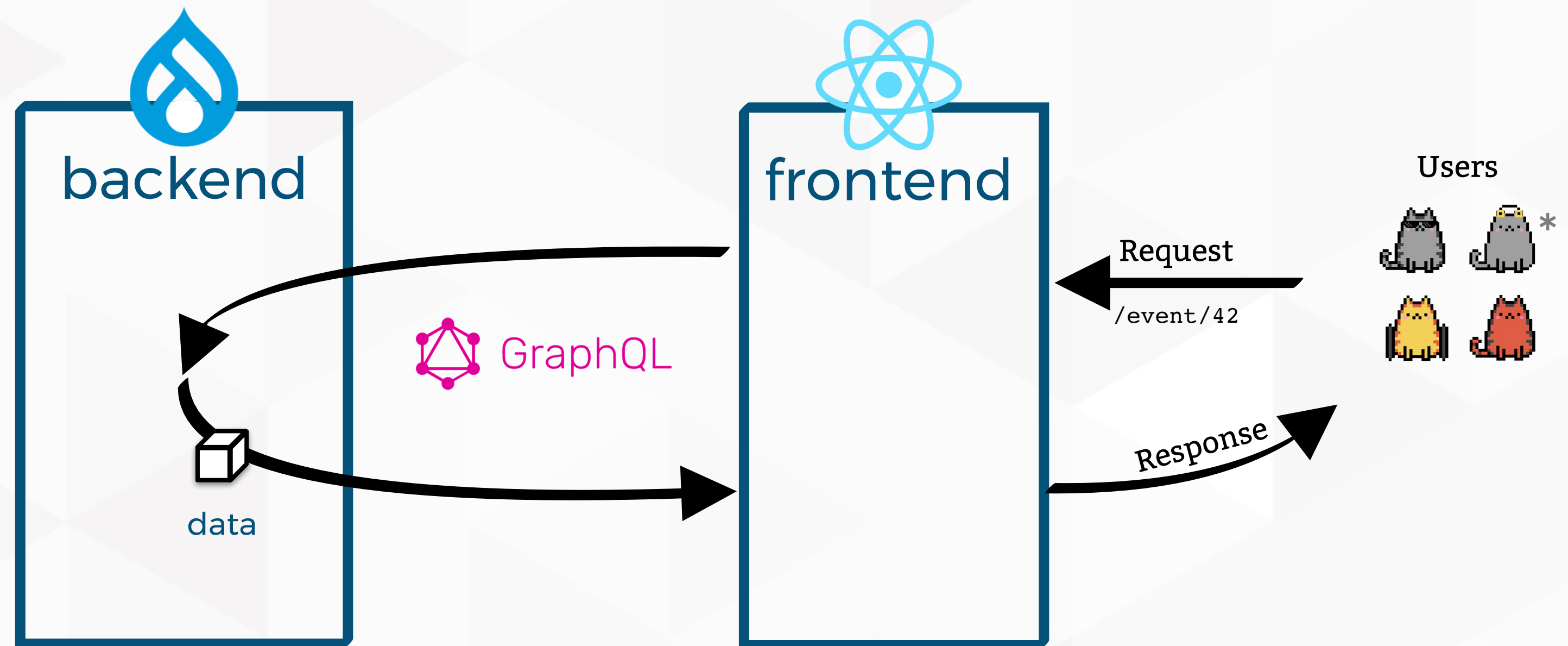
Decoupled Drupal



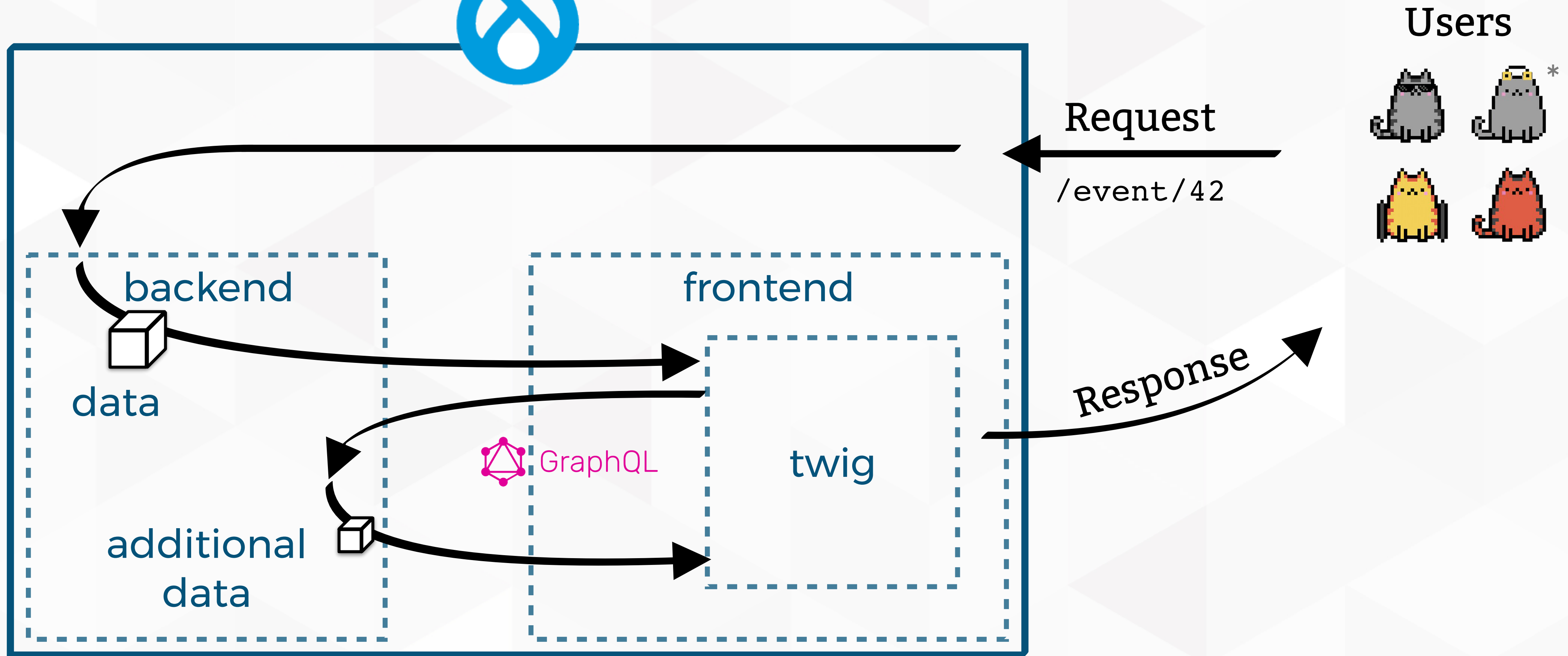
Problems with Decoupled Drupal

Problems:

- **Forms!**



GraphQL in Twig

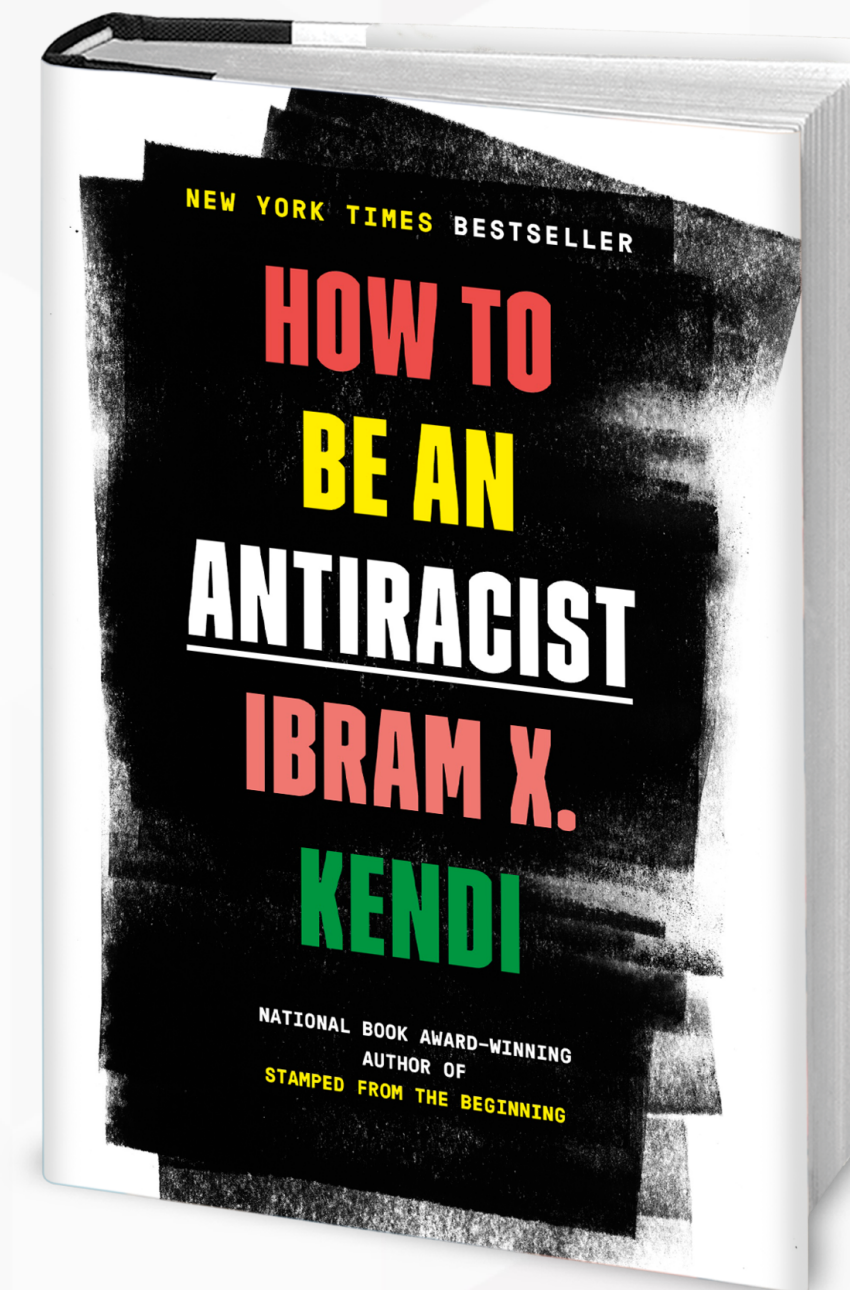


* <https://bit.ly/a1lycats>

Tech is not neutral



<https://www.sceneonradio.org/seeing-white/>



<https://www.ibramxkendi.com/how-to-be-an-antiracist-1>



GraphQL queries 101

GraphQL basics

query



data

```
Query {  
  potato {  
    leaves  
  }  
  radish  
  carrot  
}
```

fields

root
fields

```
{  
  potato: {  
    leaves: 🌿,  
  },  
  radish: "spicy",  
  carrot: 🥕,  
}
```

GraphQL field arguments

```
Query {  
  human(id: "1000") {  
    name  
    height(unit: FOOT)  
  }  
}
```


GraphQL field arguments

```
{ "humanId": "1000" }
```

```
Query ($humanId: ID!) {  
  human(id: $humanId) {  
    name  
    height  
  }  
}
```

GraphQL aliases

```
query {  
  person(personID: 5) {  
    name  
    homeworld {  
      name  
    }  
  }  
  person(personID: 22) {  
    name  
    homeworld {  
      name  
    }  
  }  
}
```

GraphQL aliases

```
query {  
  leia: person(personID: 5) {  
    name  
    homeworld {  
      name  
    }  
  }  
  bobafett: person(personID: 22) {  
    name  
    homeworld {  
      name  
    }  
  }  
}
```


GraphQL query fragments

```
query {  
  gitHub {  
    user(login: "johnalbin") {  
      name  
    }  
    org1: organization(login: "amazeelabs") {  
      ...orgFragment  
    }  
    org2: organization(login: "kss-node") {  
      ...orgFragment  
    }  
  }  
}
```

```
fragment orgFragment on Organization {  
  name  
  url  
  repositories(  
    last: 3  
    orderBy: { direction: DESC, field: CREATED_AT }  
    privacy: PUBLIC  
  ) {  
    nodes {  
      name  
      isPrivate  
    }  
  }  
}
```

graphql twig module

Require the module with:

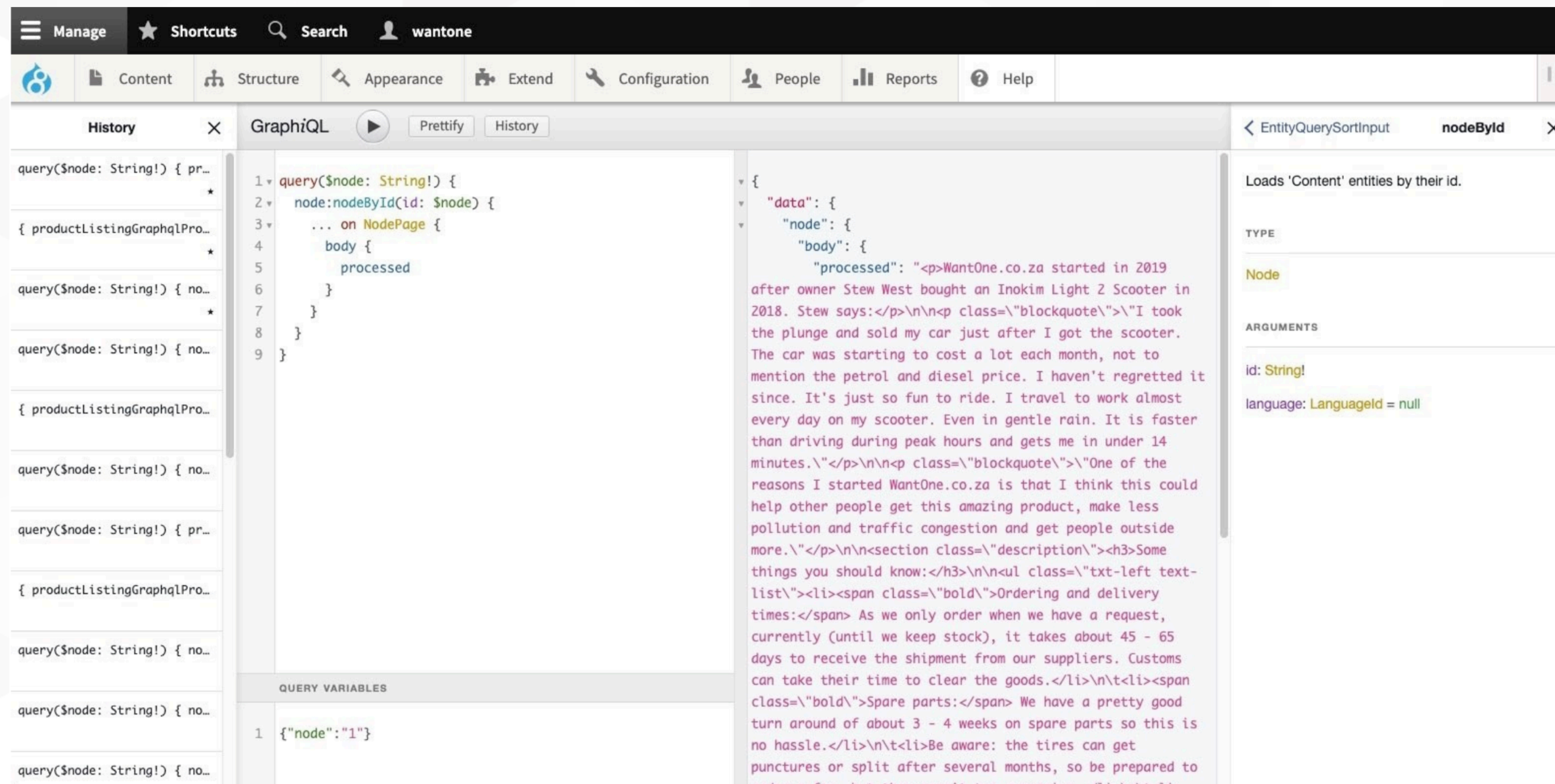
```
composer require drupal/graphql_twig
```

Query as twig comment

```
{#graphql
query($node: String!) {
  article:nodeById(id: $node) {
    ...on NodePage {
      body {
        processed
      }
    }
  }
}
#}
<article>
  <div class="content">
    {{ graphql.article.body.processed|raw }}
  </div>
</article>
```


Discoverability: graphiQL

Configuration > Web Services > GraphQL > Schemas > Explorer
yourDrupalSite.org/graphql/explorer



The screenshot shows the Drupal GraphQL Explorer interface. The top navigation bar includes 'Manage', 'Shortcuts', 'Search', and the user 'wantone'. Below this is a secondary navigation bar with icons for Content, Structure, Appearance, Extend, Configuration, People, Reports, and Help. The main interface is divided into several panels:

- History:** A list of recent GraphQL queries on the left side.
- GraphiQL:** The central editor area showing a query:

```
1 query($node: String!) {  
2   node:nodeById(id: $node) {  
3     ... on NodePage {  
4       body {  
5         processed  
6       }  
7     }  
8   }  
9 }
```
- QUERY VARIABLES:** A section below the query editor showing:

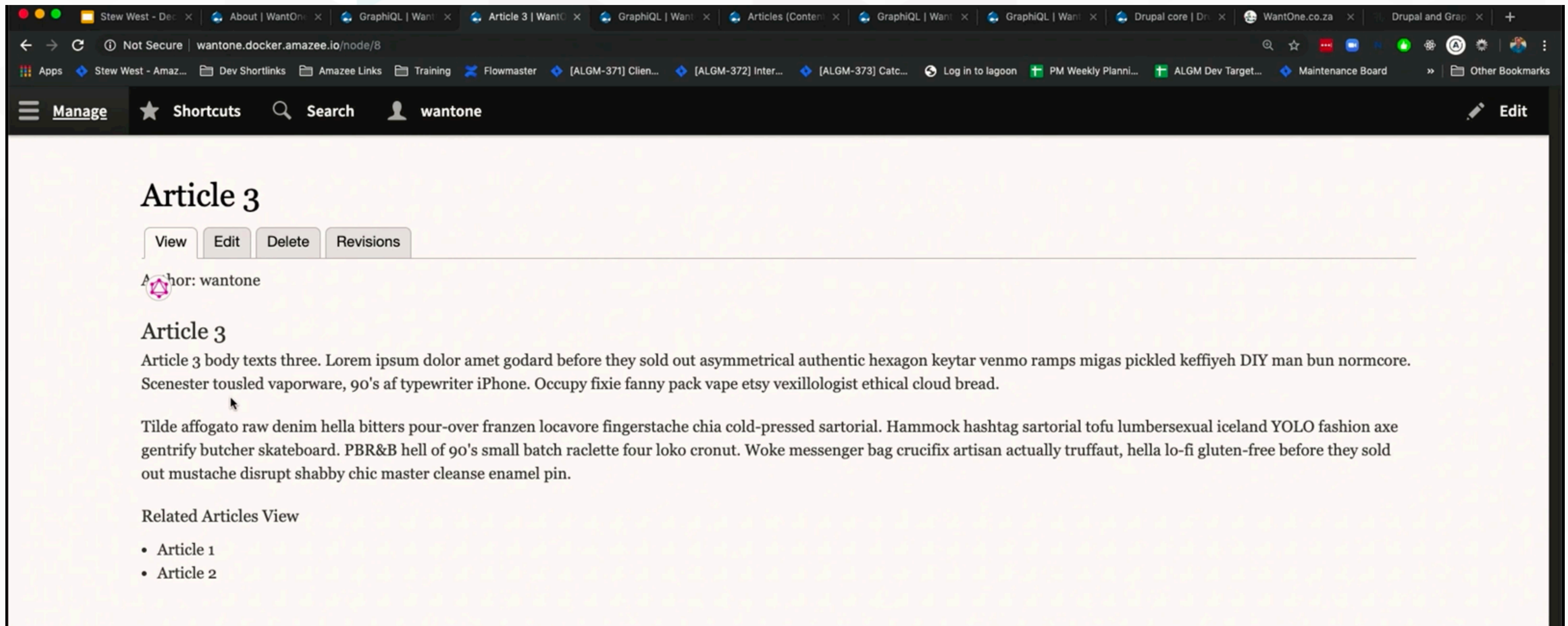
```
1 {"node": "1"}
```
- EntityQuerySortInput nodeById:** A panel on the right showing the schema definition for the `nodeById` field, including its description: "Loads 'Content' entities by their id.", its type (`Node`), and its arguments (`id: String!` and `language: LanguageId = null`).

graphql_views module

Require the module with:

```
composer require drupal/graphql_views
```


graphql_views module



The screenshot shows a web browser window displaying a Drupal 8 admin page for a content item titled "Article 3". The browser's address bar shows the URL "wantone.docker.amazee.io/node/8". The page features a dark navigation bar with "Manage", "Shortcuts", "Search", and a user profile for "wantone". Below the navigation bar, the content item "Article 3" is displayed with a "View" button and a "Delete" button. The author is listed as "wantone". The main content area contains two paragraphs of placeholder text. Below the main content, there is a "Related Articles View" section with a list of two items: "Article 1" and "Article 2".

Article 3

View Edit Delete Revisions

Author: wantone

Article 3

Article 3 body texts three. Lorem ipsum dolor amet godard before they sold out asymmetrical authentic hexagon keytar venmo ramps migas pickled keffiyeh DIY man bun normcore. Scenester tousled vaporware, 90's af typewriter iPhone. Occupy fixie fanny pack vape etsy vexillologist ethical cloud bread.

Tilde affogato raw denim hella bitters pour-over franzen locavore fingerstache chia cold-pressed sartorial. Hammock hashtag sartorial tofu lumbersexual iceland YOLO fashion axe gentrify butcher skateboard. PBR&B hell of 90's small batch raclette four loko cronut. Woke messenger bag crucifix artisan actually truffaut, hella lo-fi gluten-free before they sold out mustache disrupt shabby chic master cleanse enamel pin.

Related Articles View

- Article 1
- Article 2

Even more tips & tricks

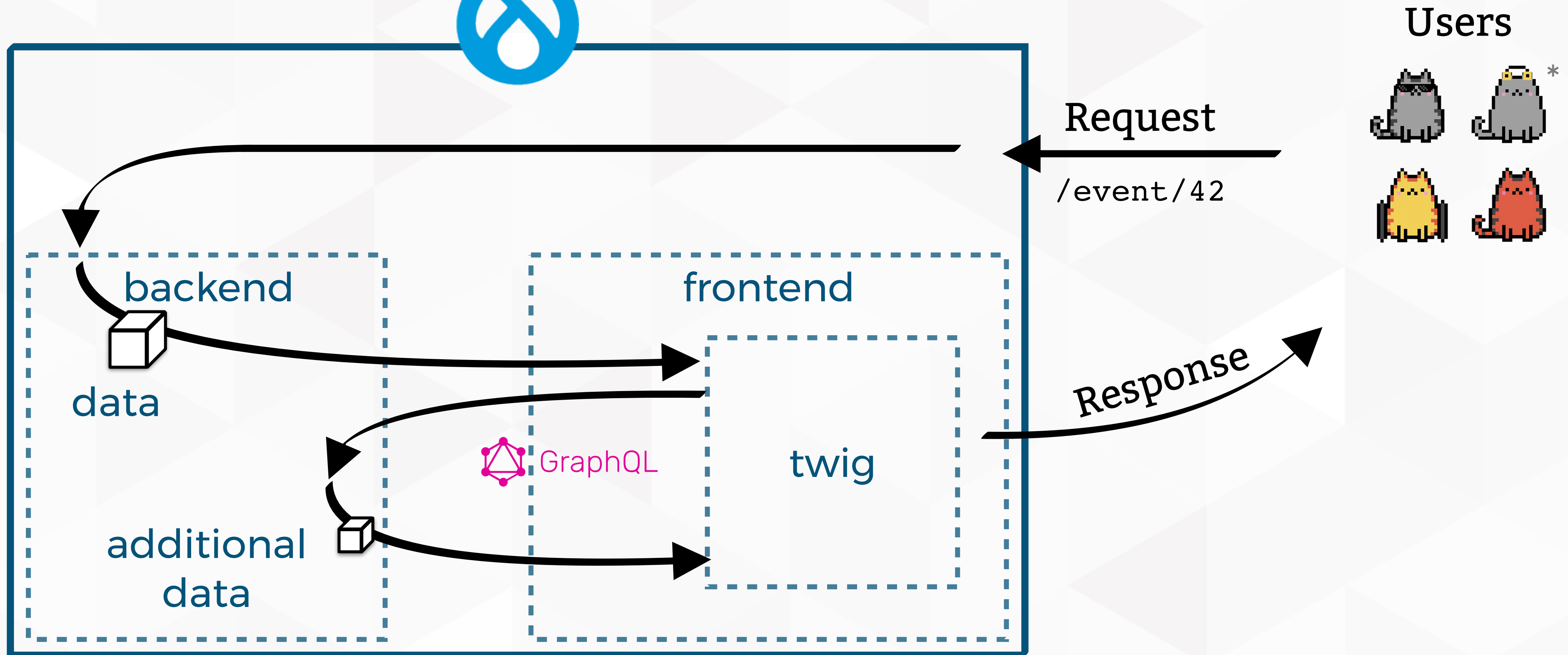


Stew West



<https://www.youtube.com/watch?v=lknMgevZqu0>

GraphQL in Twig



Hybrid push and pull

page.html.twig:

```
<div class="layout-content">
  {{ page.content }}
</div>
```

```
<aside class="layout-sidebar-first" role="complementary">
  {# Normal Drupal blocks in a region. #}
  {{ page.sidebar_first }}
  {# Twig template with a GraphQL query. #}
  {% include "sidebar.html.twig" %}
</aside>
```




Thank you!





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