Open source data infrastructure

elbwalker/walker.js

The disclaimer

Everything is open source

LICENSE

```
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```

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- ✔ Modification
- ✔ Distribution
- ✔ Private use

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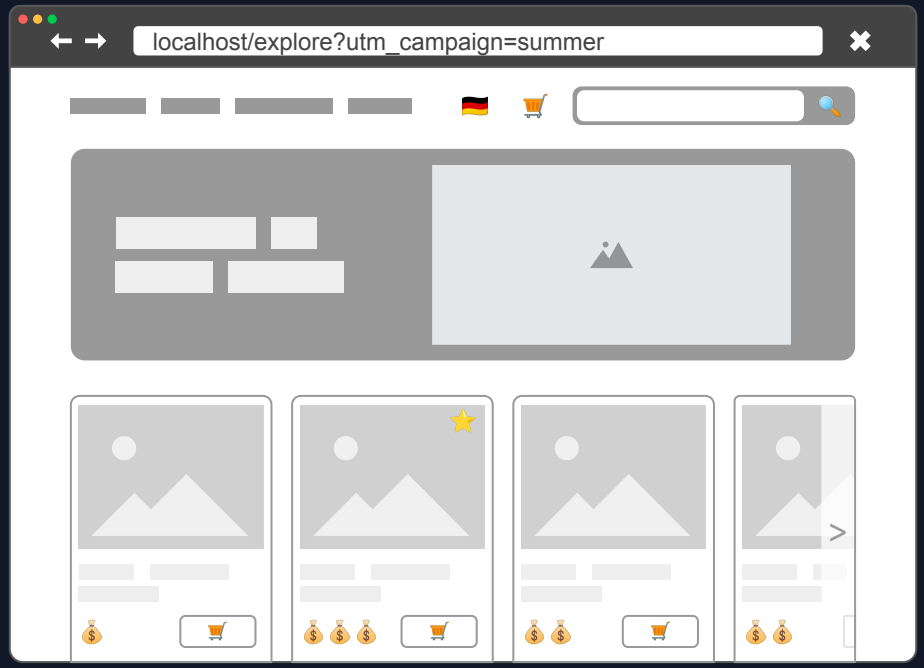
elbwalker/walker.js

Expectations vs. reality

How data analytics has changed

Data collection interests

Different needs but same origin

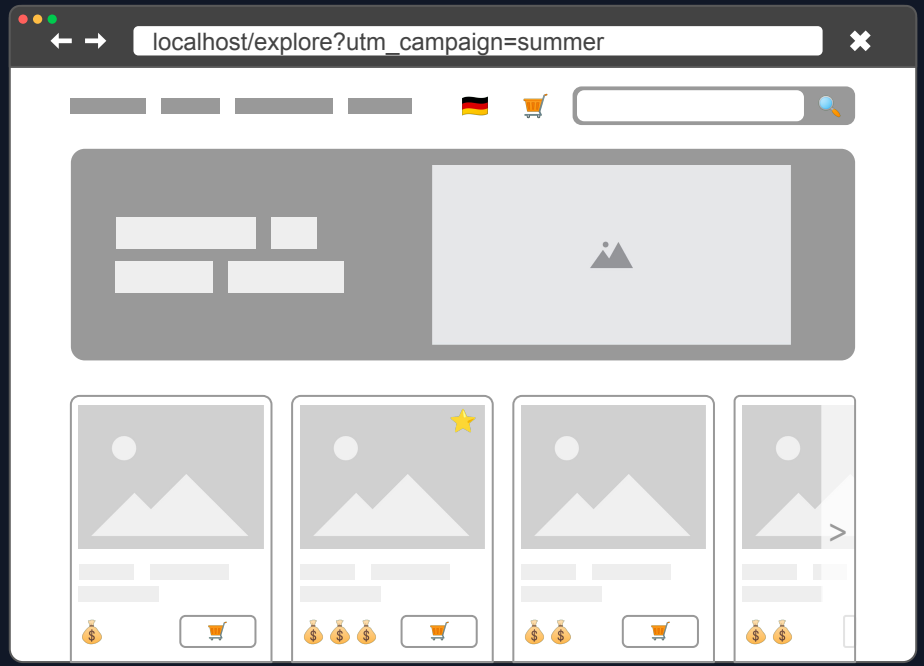


3rd party | consent | user | config

🧑 Online Marketer	campaign, 3rd party
👱 Data Governance	consent, namings
👦 Data Scientist	user, config
👩‍🦳 Product Owner	usage, adoption
👱 Data Analyst	events, content
🧑‍🦰 Growth Manager	experiments, behaviour
🤓 DevOps & 👩‍💻 Developer	peace of mind

Generic event structure

Exemplary on a website

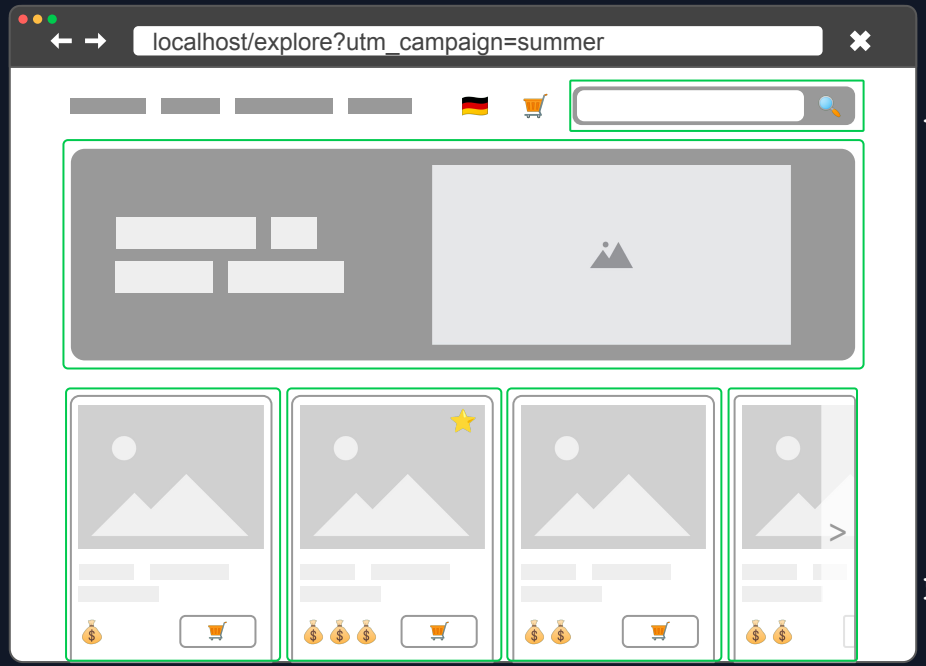


Generic event structure

Exemplary on a website

Generic event structure

Exemplary on a website

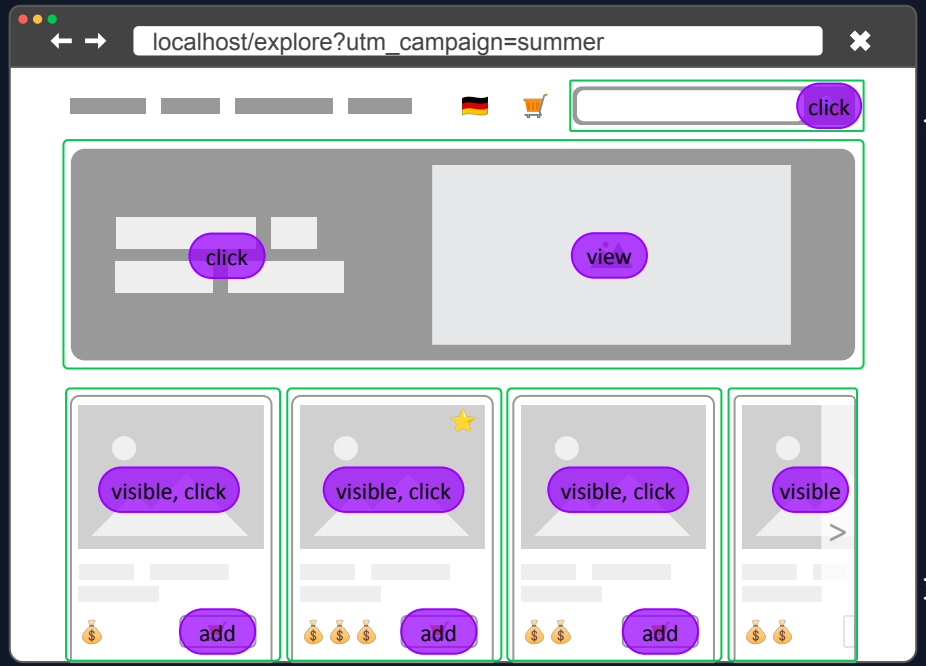



```
{
  entity: "promotion",
}
```

Entity

Generic event structure

Exemplary on a website

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Entity

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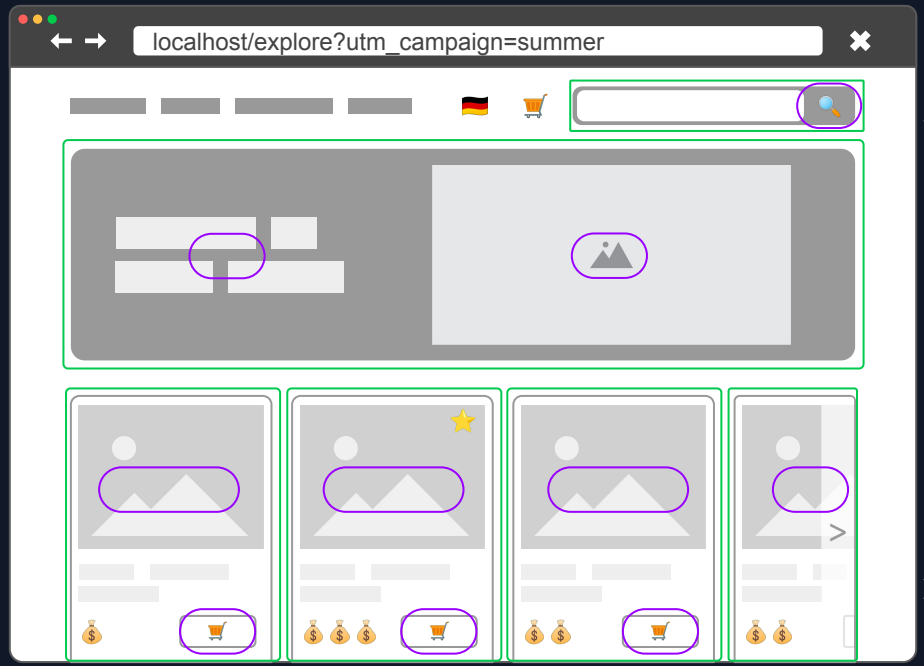
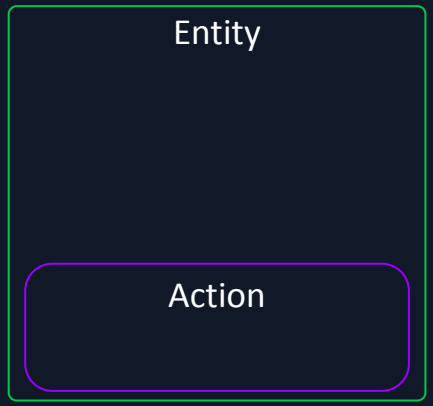



```
{
  entity: "promotion",
  action: "view",
}
```



Generic event structure

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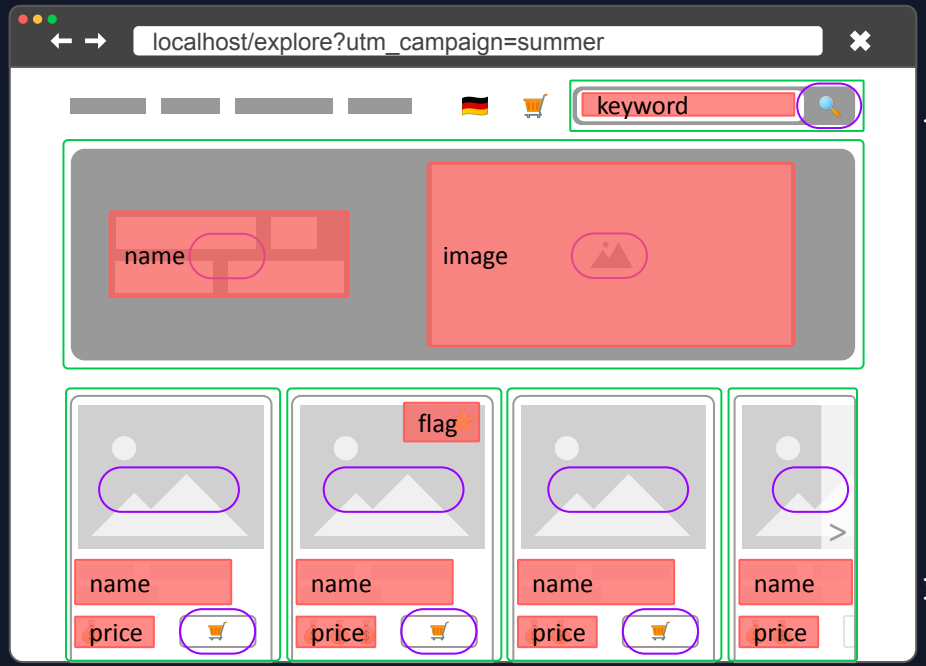


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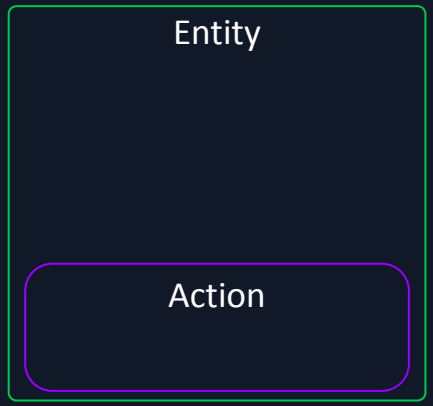

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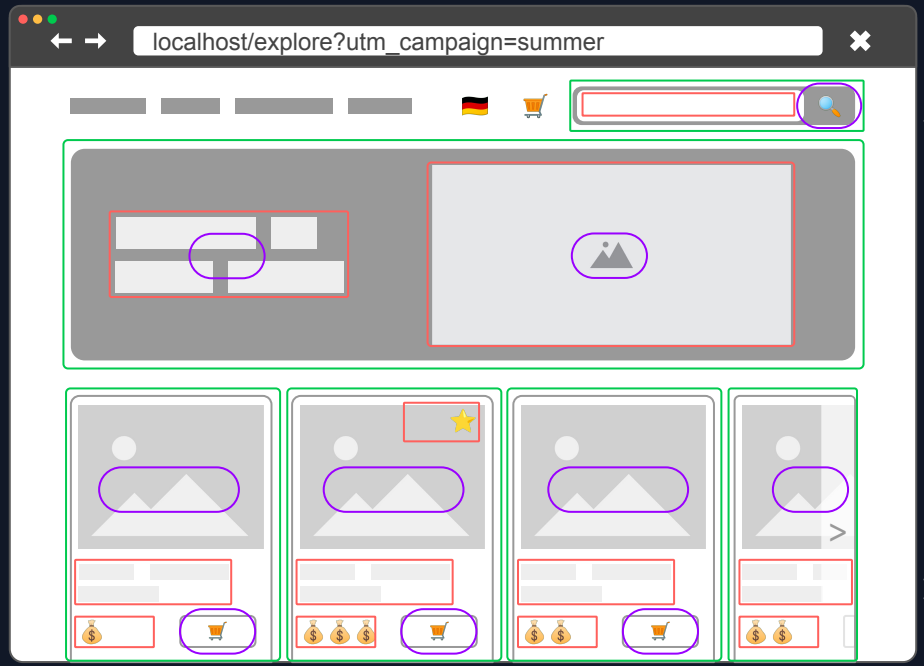
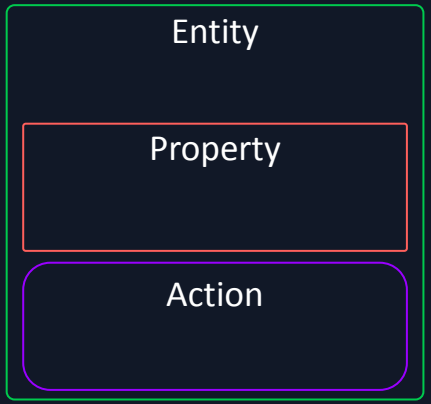



```
{
  entity: "promotion",
  action: "view",
  data: {
    name: "Setting up …",
    category: "analytics"
  },
}
```



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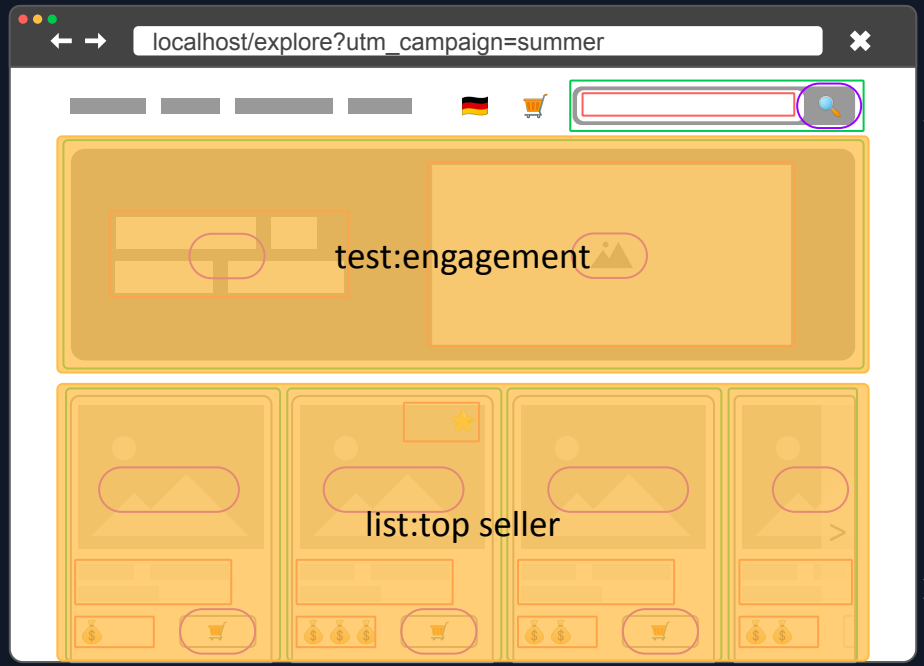


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  data: {
    name: "Setting up …",
    category: "analytics"
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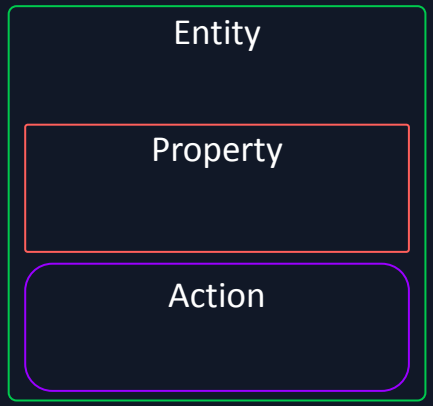

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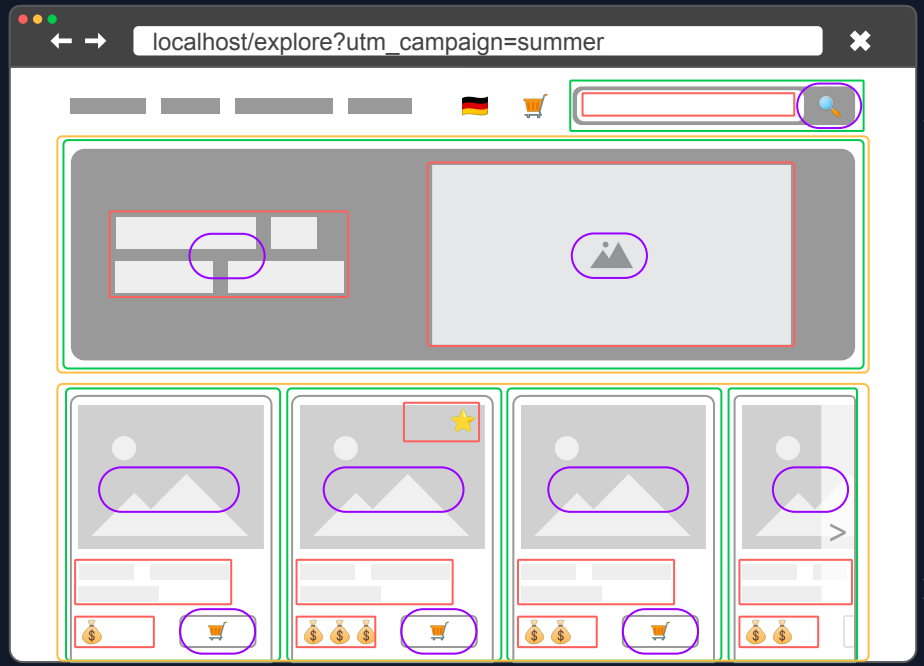
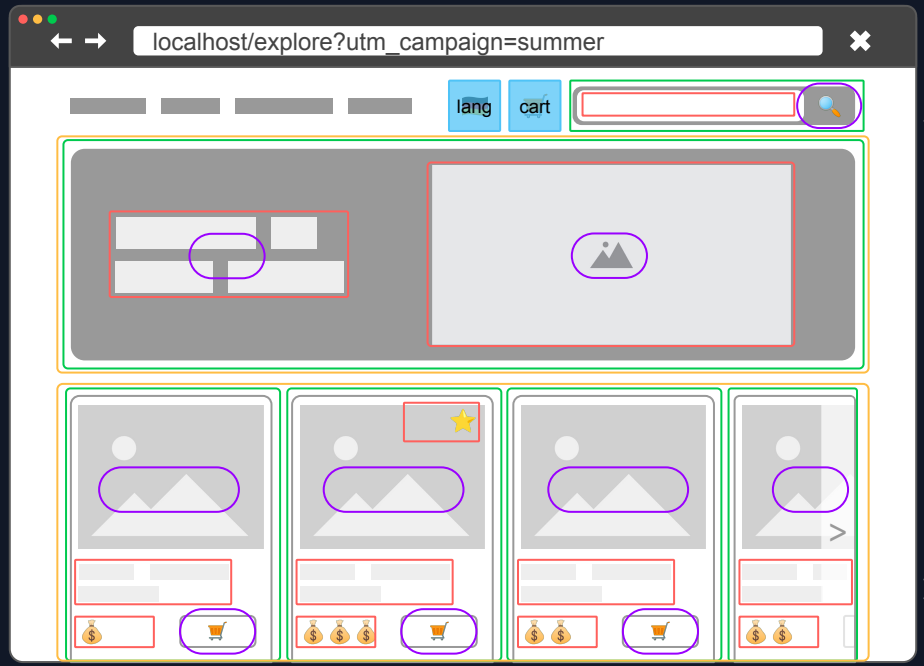



```
{
  entity: "promotion",
  action: "view",
  data: {
    name: "Setting up …",
    category: "analytics"
  },
  context: {
    test: ["engagement", 0]
  },


}
```

Generic event structure

Exemplary on a website

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Generic event structure

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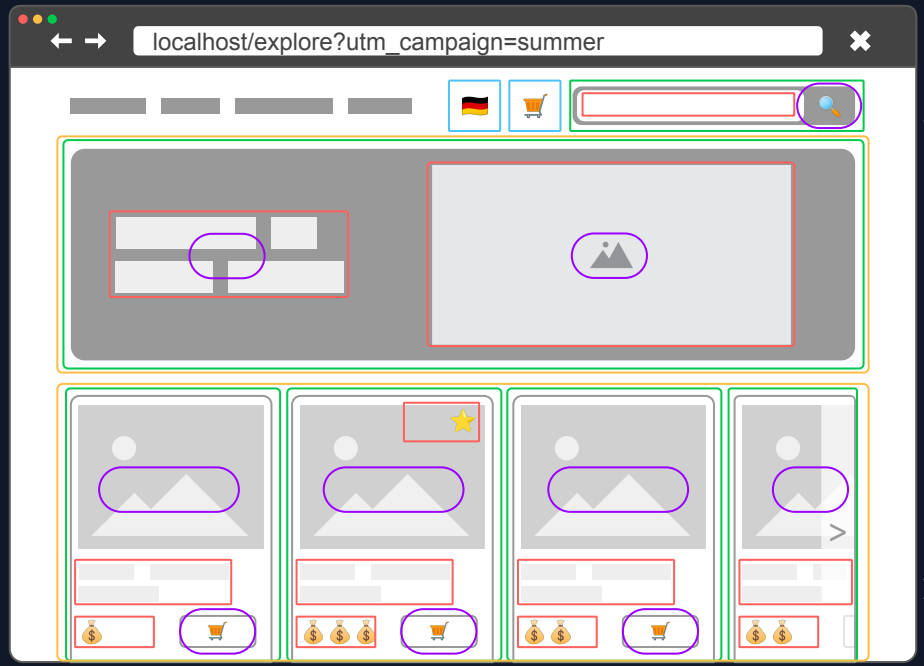


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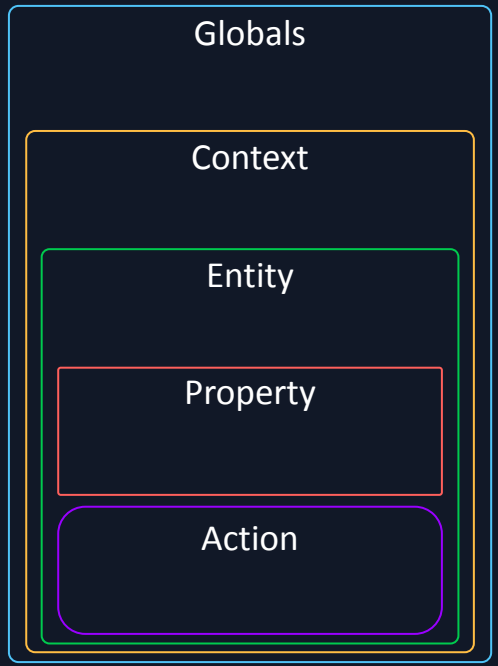
{
  entity: "promotion",
  action: "view",
  data: {
    name: "Setting up …",
    category: "analytics"
  },
  context: {
    test: ["engagement", 0]
  },
  globals: {
    language: "en"
  }
}
```



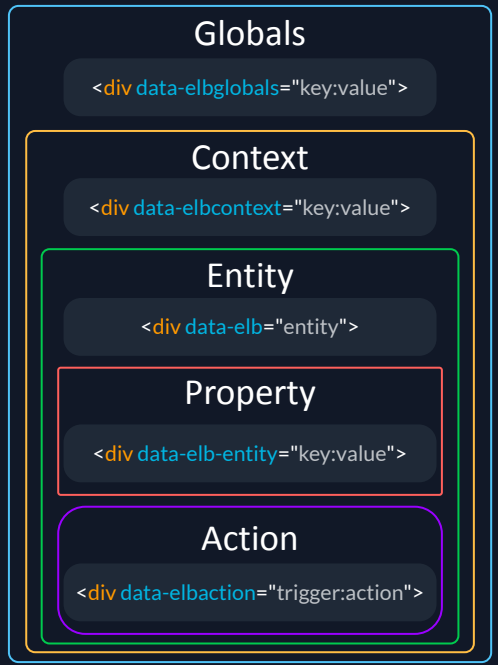
Generic event structure

Exemplary on a website

tagging.html

```
<body data-elbglobals="language:en">
  <div data-elbcontext="test:engagement">
    <div data-elb="promotion" data-elbaction="visible:view">
      <h1 data-elb-promotion="name:Setting up tracking easily">
        Setting up tracking easily
      </h1>
      <p data-elb-promotion="category:analytics">Analytics</p>
    </div>
  </div>
</body>
```

```
{
  entity: "promotion",
  action: "view",
  data: {
    name: "Setting up …",
    category: "analytics"
  },
  context: {
    test: ["engagement", 0]
  },
  globals: {
    language: "en"
  }
}
```



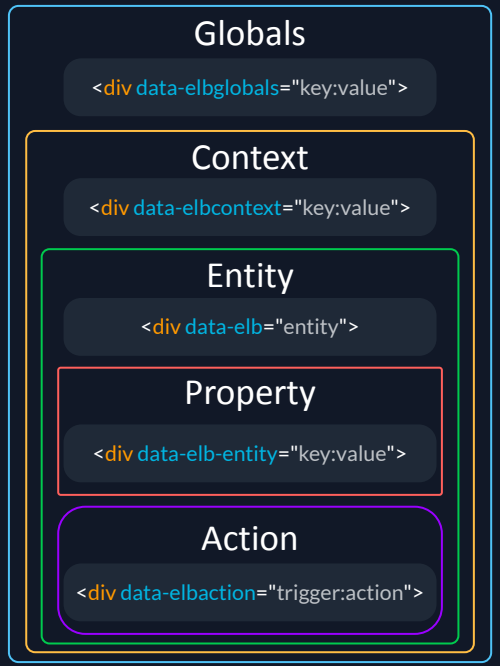
Generic event structure

Exemplary on a server

src/packages/promotions/test.ts

```
await elb({
  event: "promotion view",
  data: {
    name: "Setting up tracking easily",
    category: "analytics",
  },
  context: {
    test: ["engagement", 0],
  },
  globals: {
    language: "en",
  },
});
```

```
{
  entity: "promotion",
  action: "view",
  data: {
    name: "Setting up …",
    category: "analytics"
  },
  context: {
    test: ["engagement", 0]
  },
  globals: {
    language: "en"
  }
}
```



walker.js event

```
{
  event: 'promotion view', // Combination of entity and action
  data: { // Arbitrary set properties with the data-elb-promotion attribute
    name: 'Setting up tracking easily',
    category: 'analytics',
  },
  context: { // Related properties defined with the data-elbcontext attribute
    test: ['engagement', 0] // Value and order
  },
  globals: { // General Properties defined with the data-elbglobals attribute
    language: 'en'
  },
  user: { // Stored user ids (manually added once)
    id: 'userid',
    device: 'cookieid',
    session: 'sessionid',
  },
  nested: [], // All nested entities within the promotion
  consent: { functional: true }, // Status of the consent state(s)
  id: '1647261462000-01b5e2-5', // Timestamp, group & count of the event
  trigger: 'visible', // Name of the trigger that fired
  entity: 'promotion', // Entity name
  action: 'view', // Entity action
  timestamp: 1647261462000, // Time when the event fired
  timing: 3.14, // How long it took from the page load to trigger the event
  group: '01b5e2', // Random group id for all events on a page
  count: 2, // Incremental counter of the events on a page
  version: { // Helpful when working with raw data
    walker: 1.6, // Used walker.js version
    config: 42, // A custom configuration version number
  },
  source: { // Origins of the event
    type: "web", // Source type of the event
    id: 'https://github.com/elbwalker/walker.js', // Source id of the event
    previous_id: 'https://www.elbwalker.com/' // Previous source id (referrer)
  },
  walker: true, // Flag to filter events
}
```

- ✔ First party
- ✔ Source of truth
- ✔ Vendor agnostic
- ✔ Structured flexibility
- ✔ Industry independent

Sending to destinations

Spread the event(s)

```
{
  entity: "promotion",
  action: "view",
  event: "promotion view",
  data: {
    name: "Setting up …",
    category: "analytics"
  },
  context: {
    test: ["engagement", 0]
  },
  globals: {
    language: "en"
  }
}
```

Google Tag Manager

PIWIK PRO

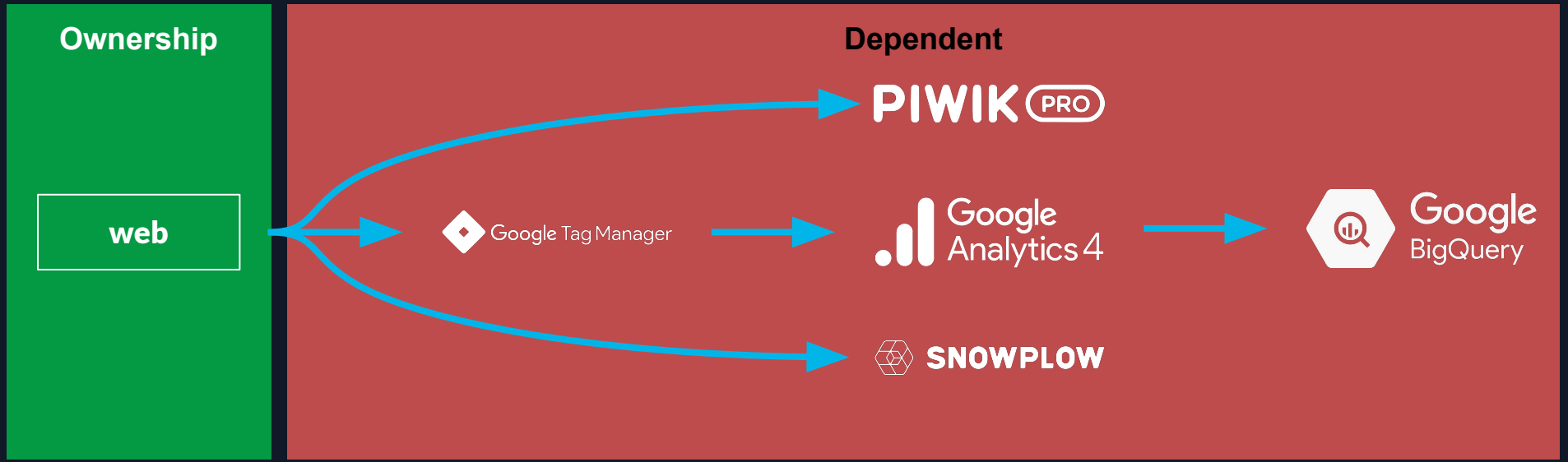
Google Analytics 4

SNOWPLOW

Google BigQuery

Data infrastructure

How to get from A to Z



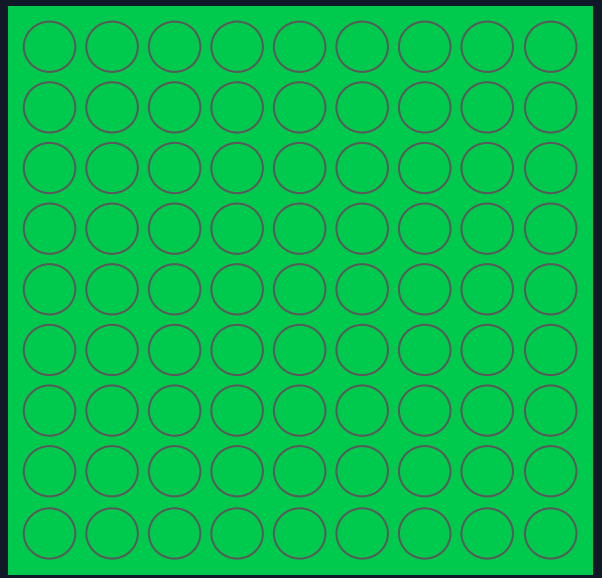
Data infrastructure

How to get from A to Z

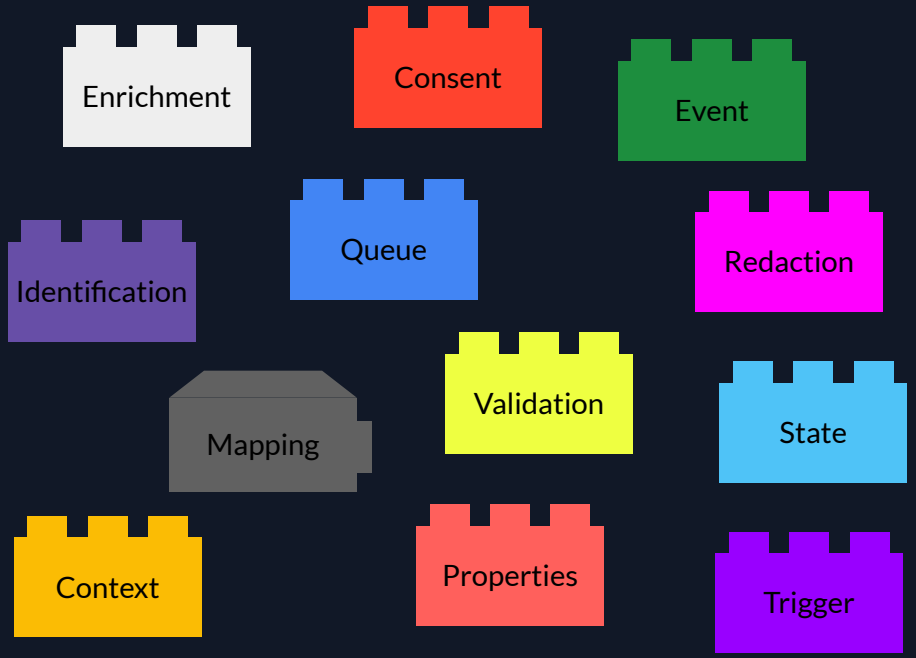
Data playground

Unlimited possibilities

Contract

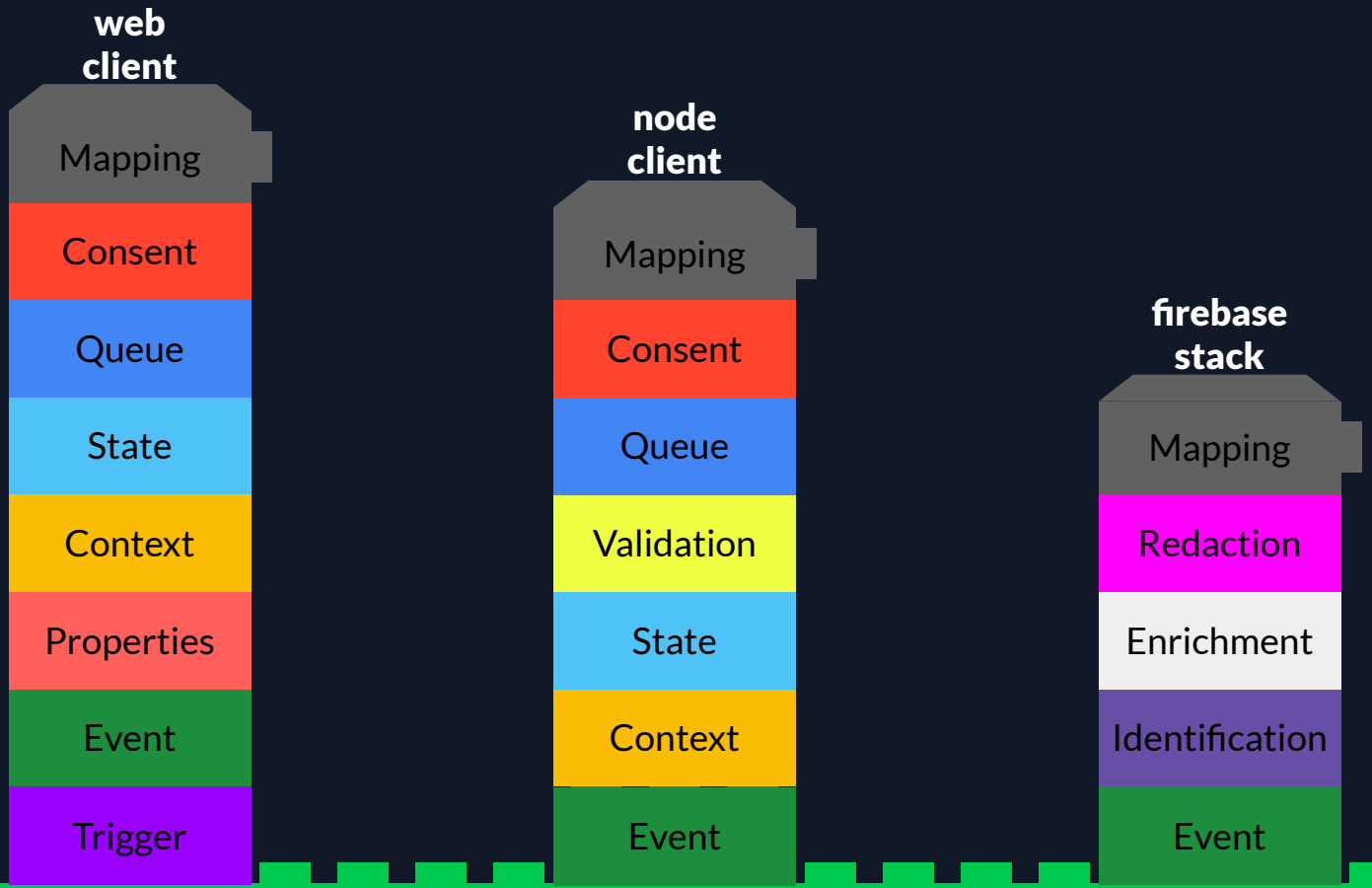


Building blocks



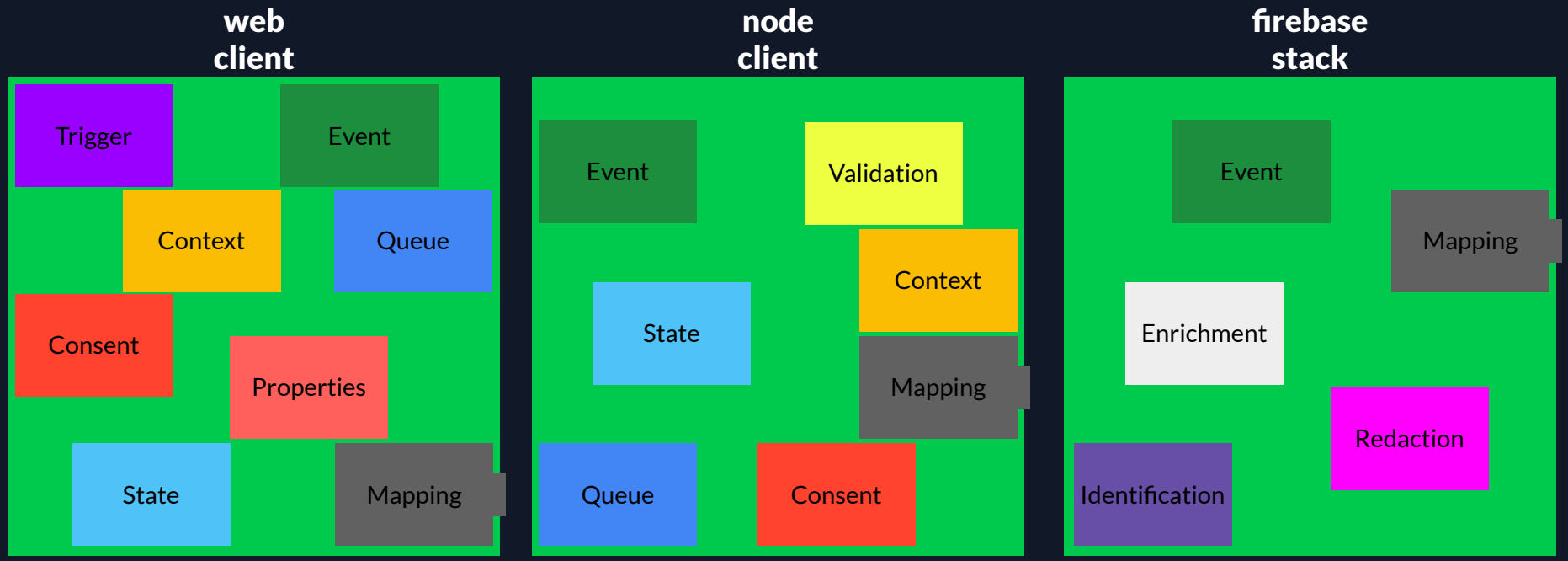
Utils are the building blocks

Just another brick in the stack



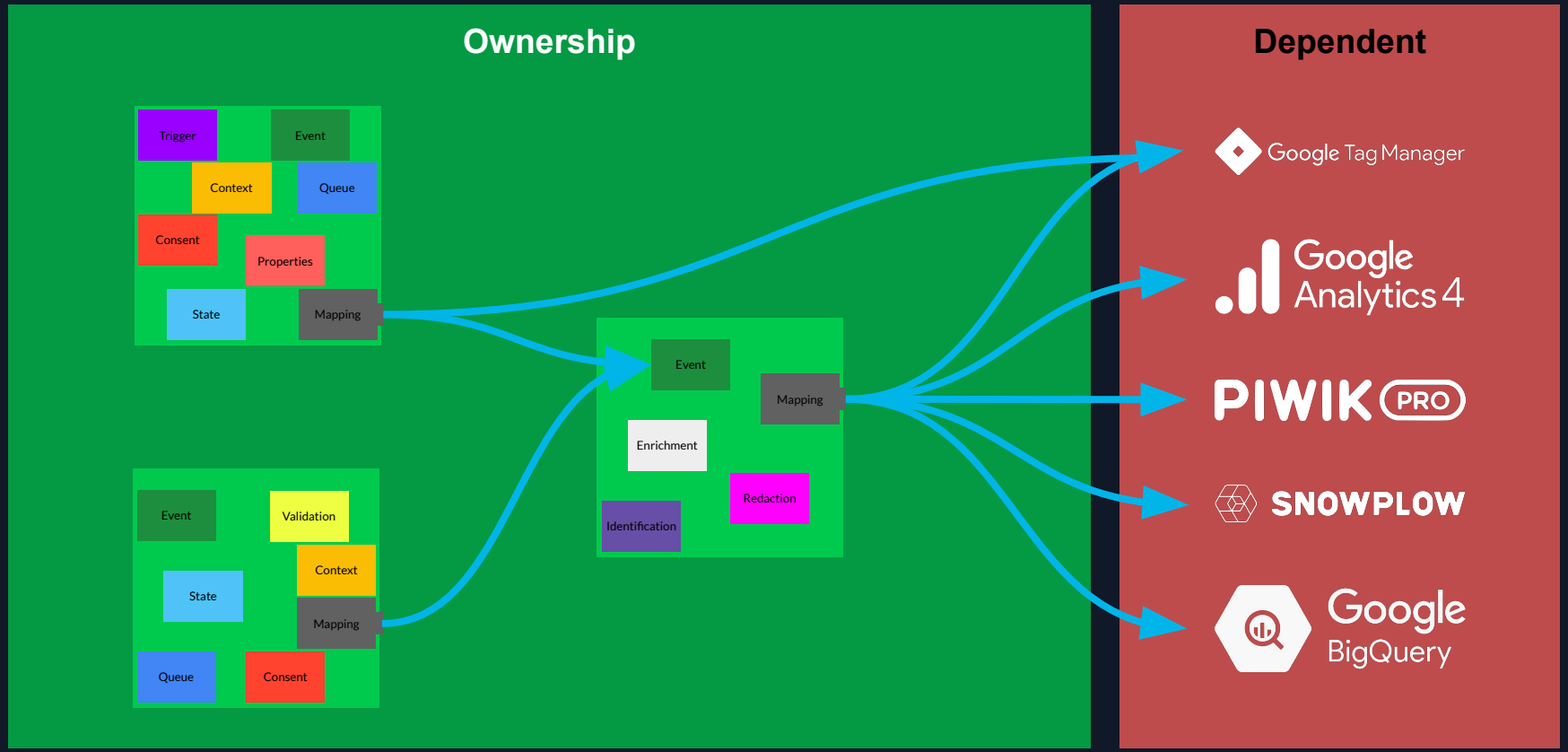
Data playground

Building blocks and contracts



Data playground

Building blocks and contracts



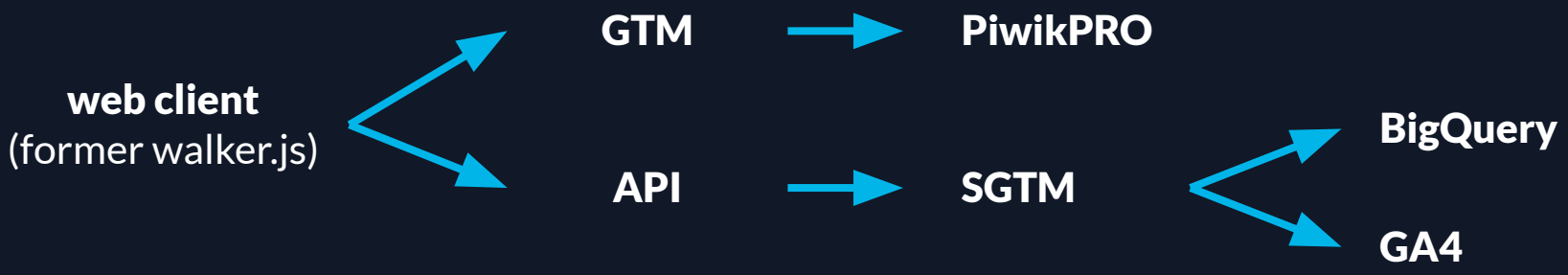
The project has evolved

What do you think?

walker.js → walkerOS

Data collection with walkerOS

Show me



Data collection with walkerOS

Show me

Demo

Děkuji

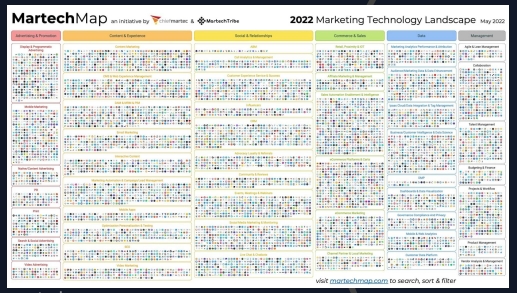
hello@elbwalker.com
alexander.kirtzel

elbwalker/walker.js

Data collection complexity

Everything is relative

>10k vendors/tools



martechmap.com

🏁 GOAL

👱 Data Analyst

🧑 Online Marketer

👦 Data Scientist

👩‍🦳 Product Owner

🧓 Data Engineer

👩‍🦰 Growth Manager

👨‍🦲 Data Governance

👩‍🦱 Developer

🤓 DevOps

walker.js

👩‍💻 USER