

# 1. Fundamentals

Introduction to React

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Design systems



Modern Javascript



React anatomy



React Ecosystem

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 **Design systems**

 Modern Javascript

 React anatomy

 React Ecosystem

# Design systems



History



Encapsulation



Atomic Design

# Design systems



**History**



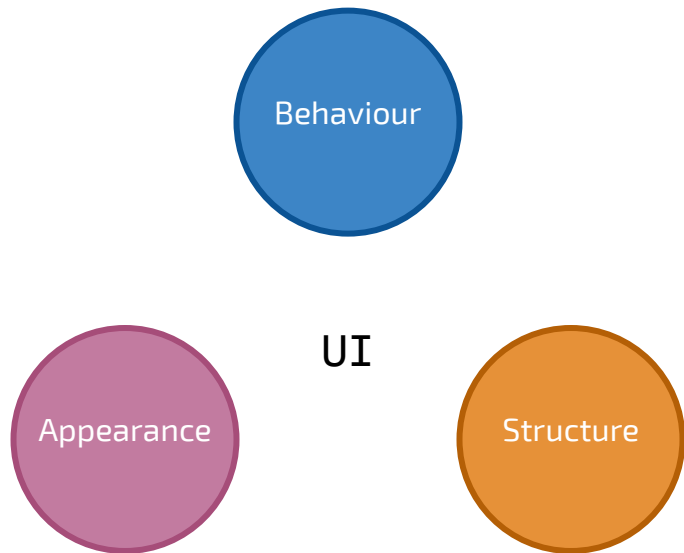
Encapsulation



Atomic Design

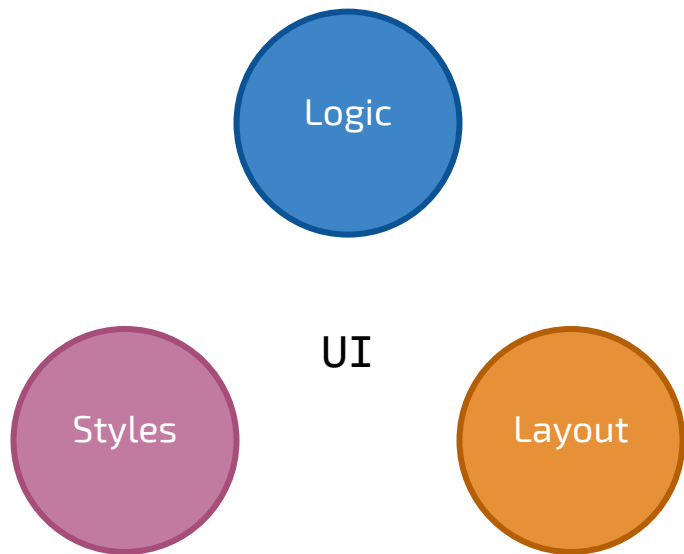


# Design systems – Interface attributes



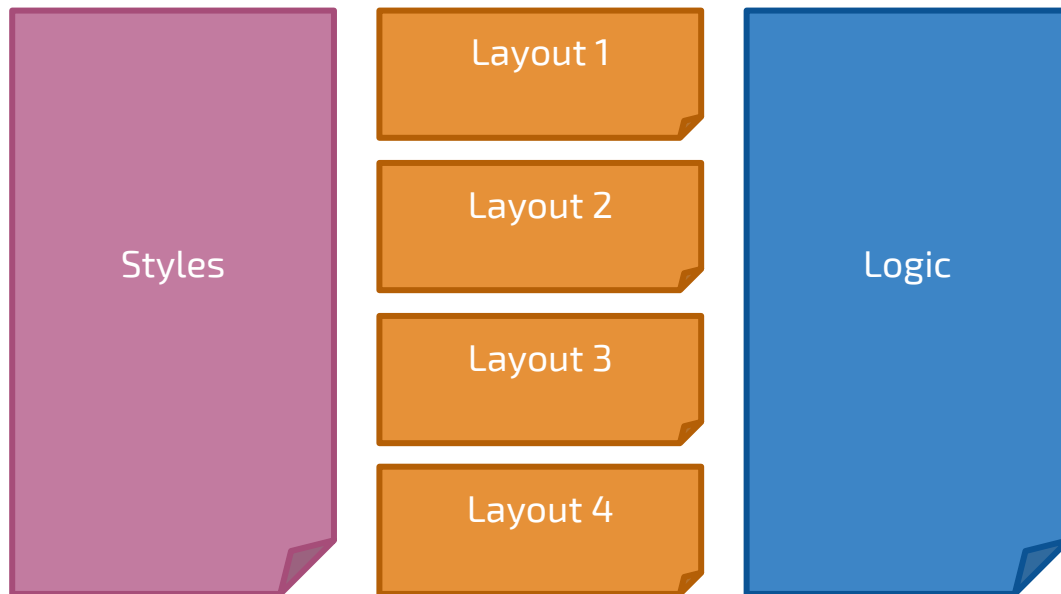


# Design systems – Web interface attributes





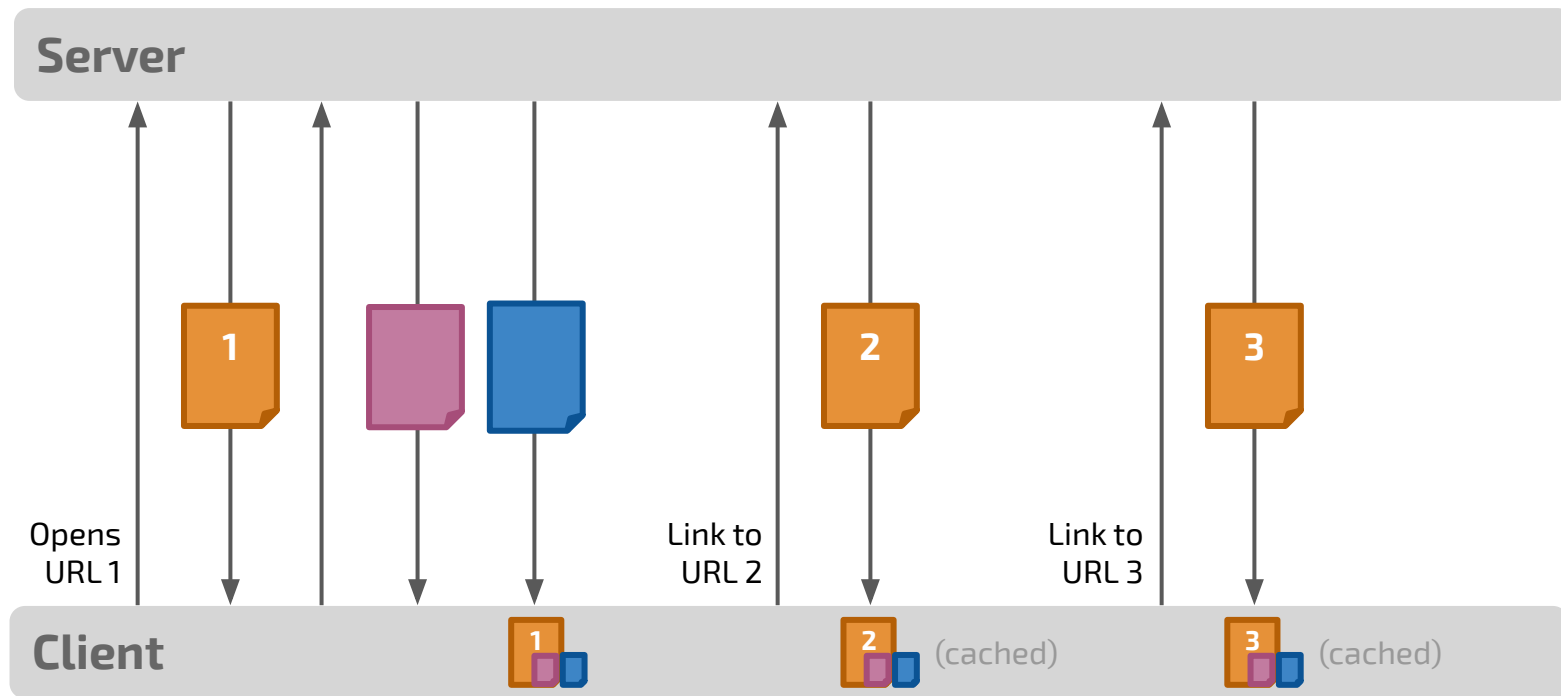
# Design systems - Classic frontend architecture





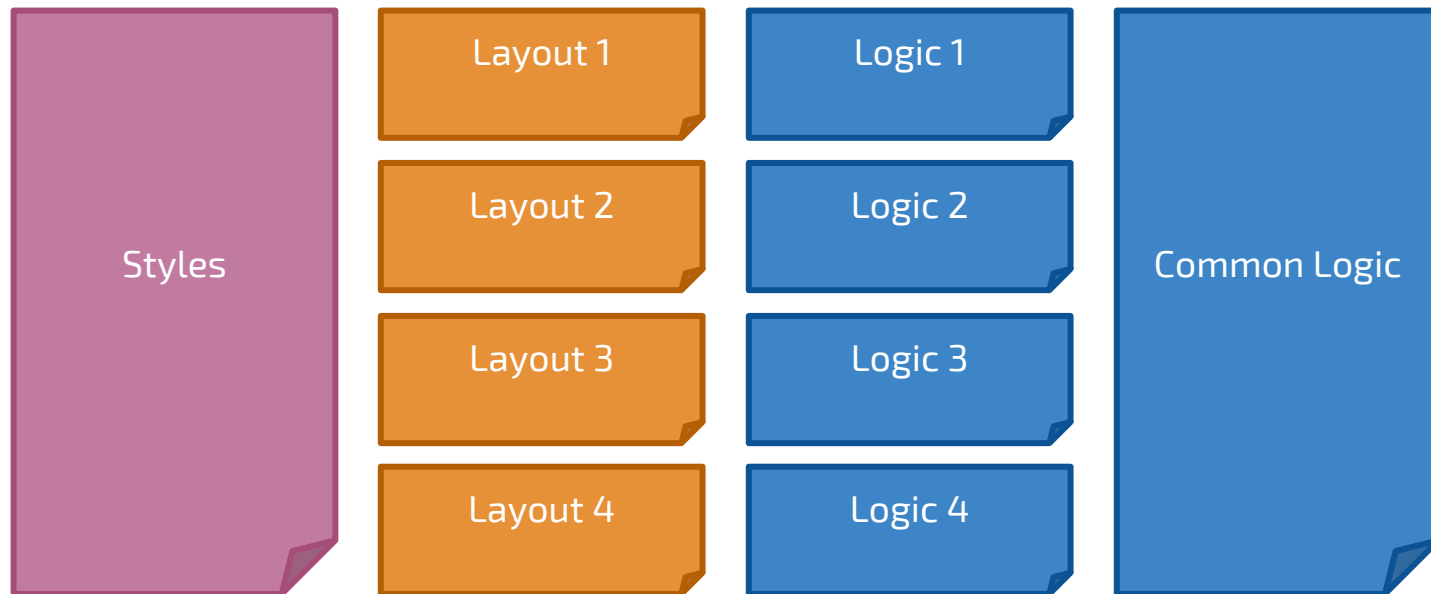


# Design systems - Classic frontend architecture



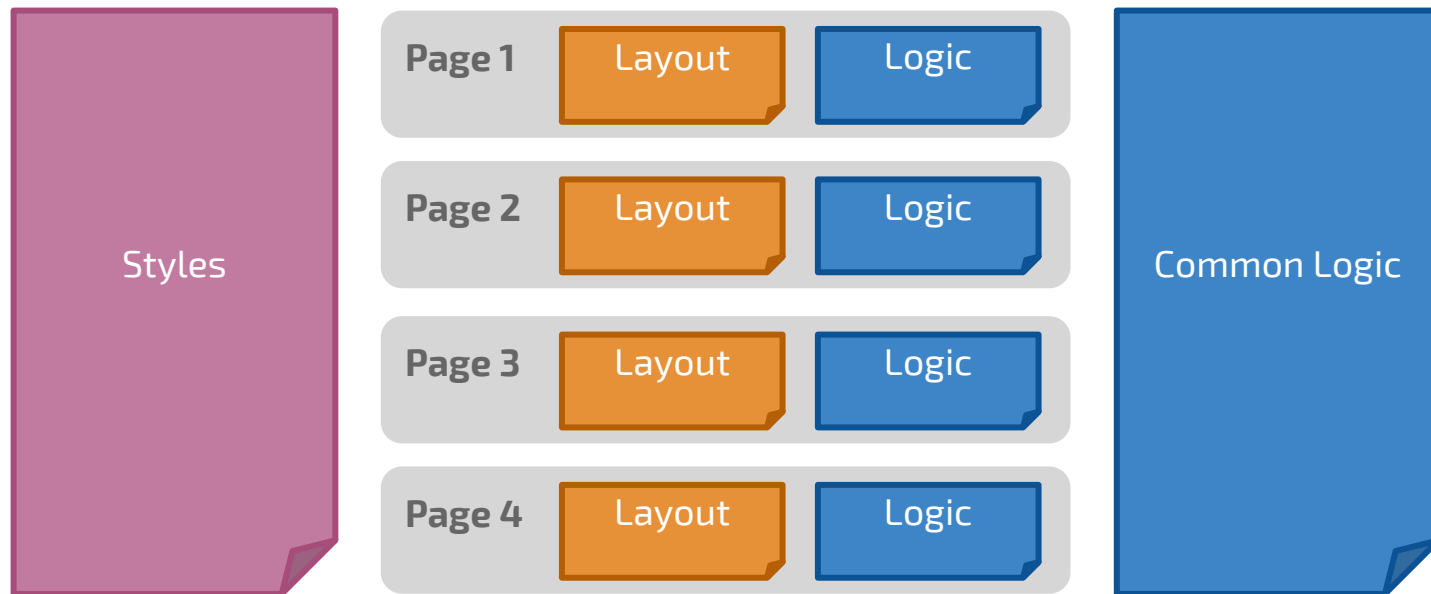


# Design systems - Classic frontend architecture





# Design systems - Classic frontend architecture



# Design systems – Components-based architecture

“ We’re not designing pages.  
We’re designing systems of components.”

Stephen Hay - Author of Responsive Design Workflow

# Design systems



History

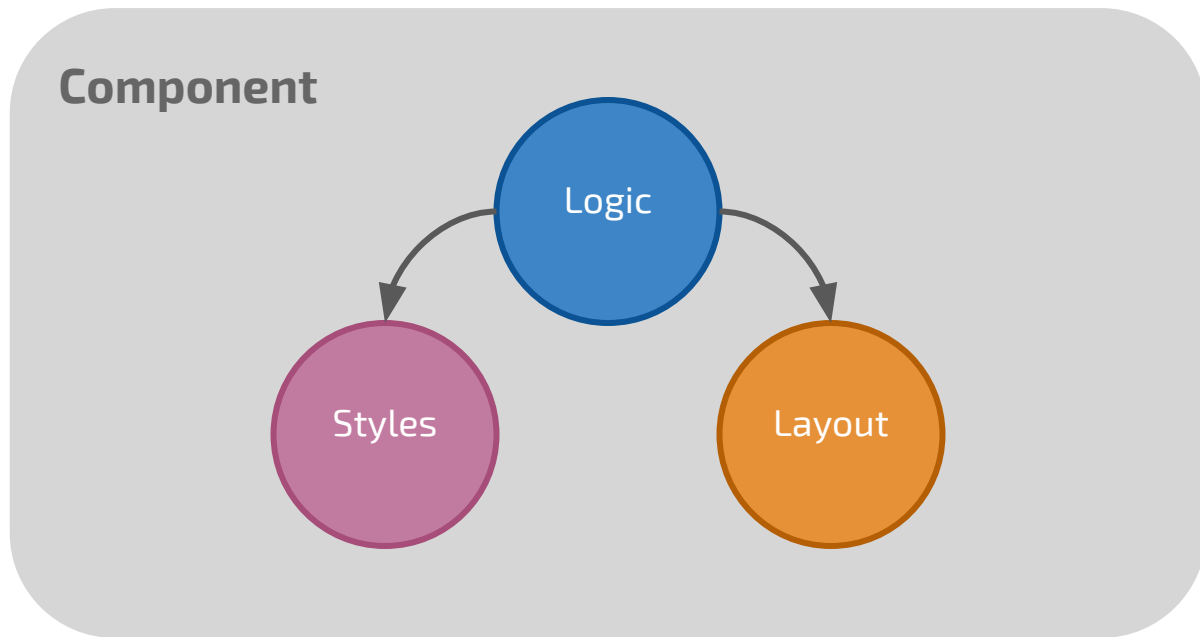


**Encapsulation**

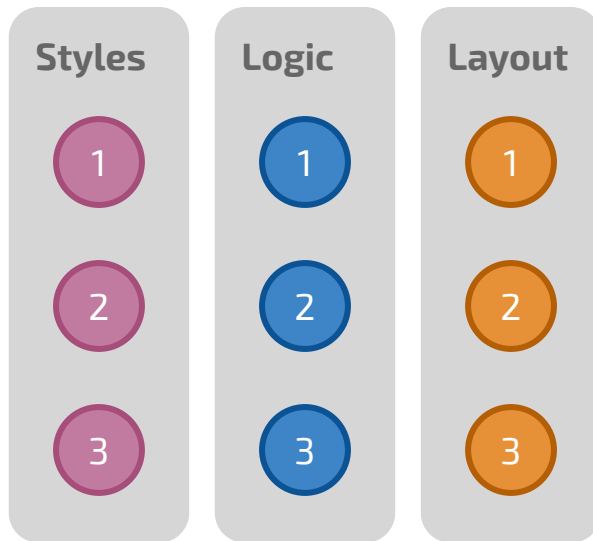


Atomic Design

# Design systems – Components-based architecture



# Design systems – Components-based architecture

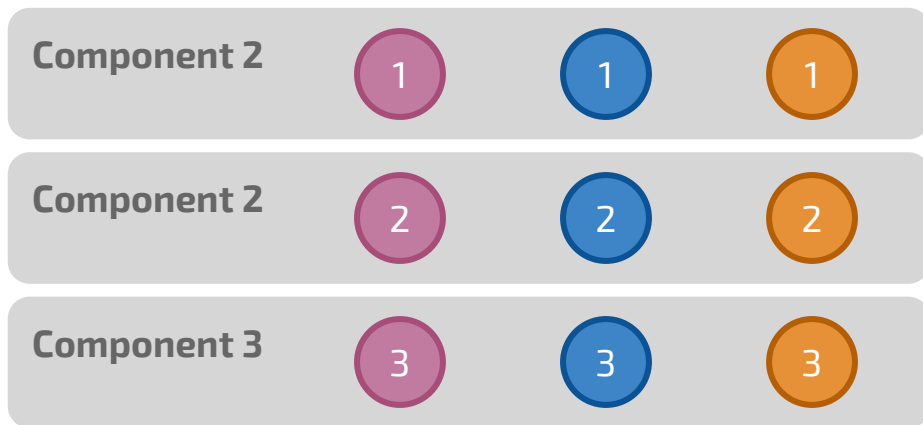


# Design systems – Components-based architecture

	Styles	Logic	Layout
Component 2	1	1	1
Component 2	2	2	2
Component 3	3	3	3



# Design systems – Components-based architecture

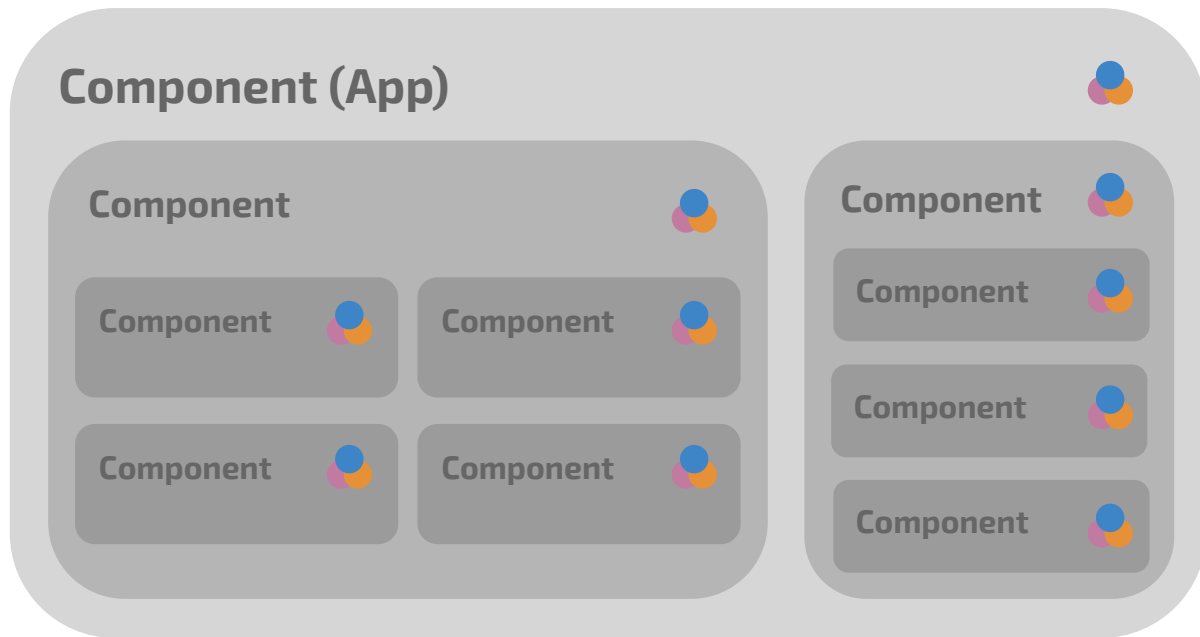


# Design systems – Components-based architecture

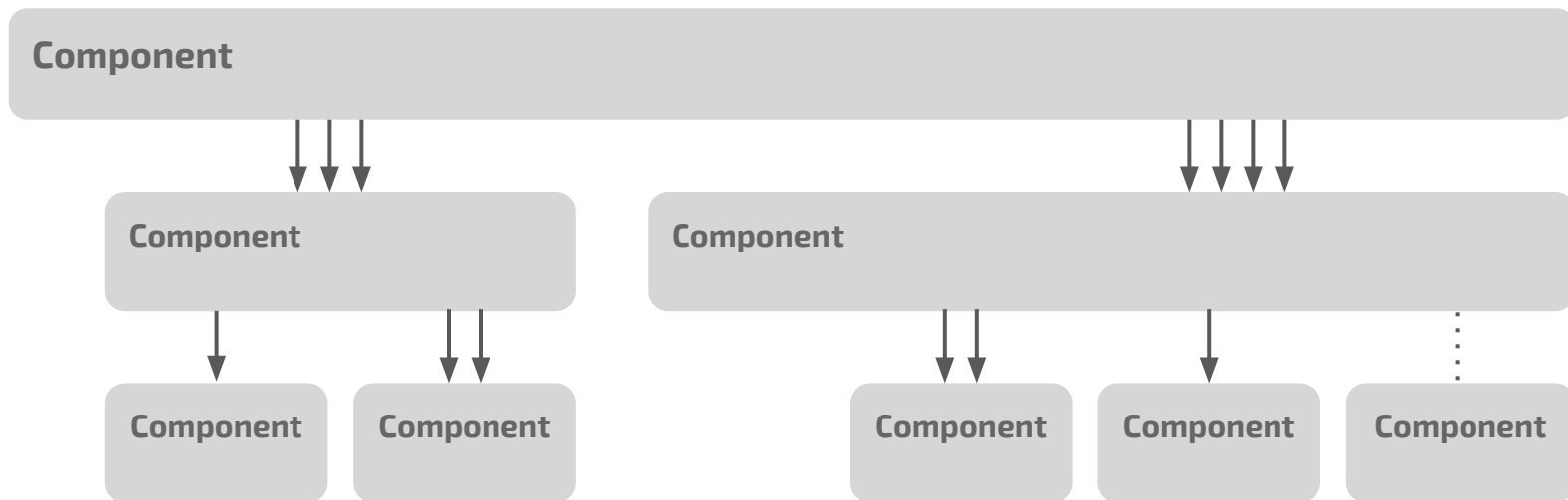
**Component**



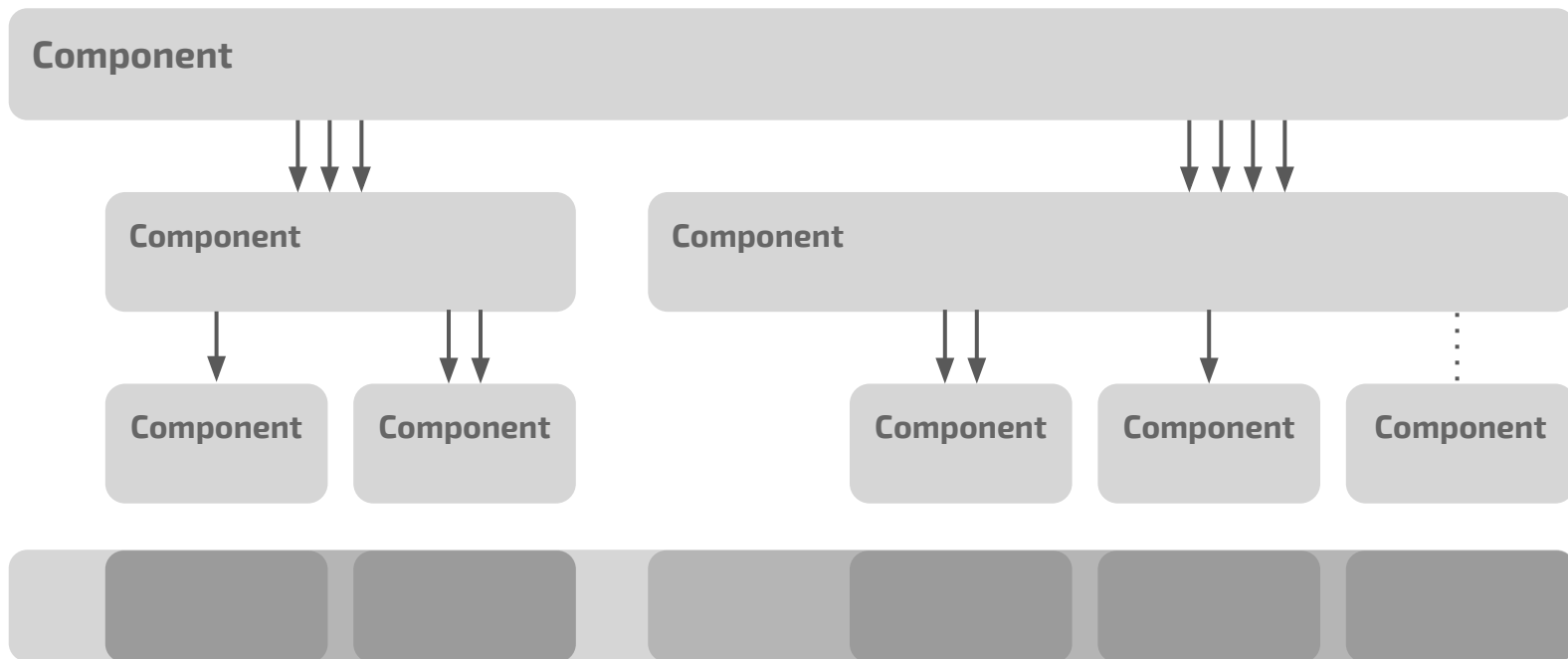
# Design systems – Components-based architecture



# Design systems - Components-based architecture



# Design systems - Components-based architecture



# Design systems



History



Encapsulation



**Atomic Design**

# Design systems - Atomic design

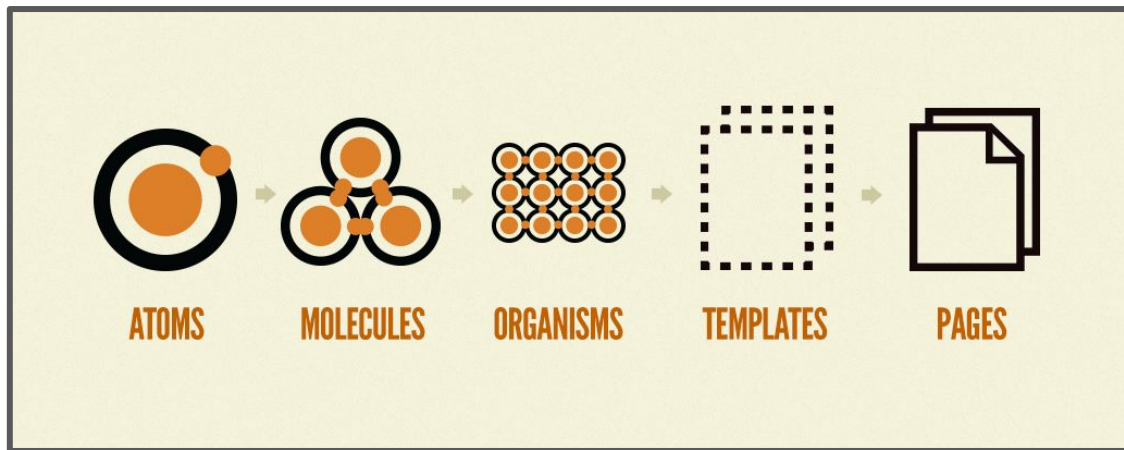


Image from [atomicdesign.bradfrost.com](https://atomicdesign.bradfrost.com)



# Design systems – Atomic design: Atom

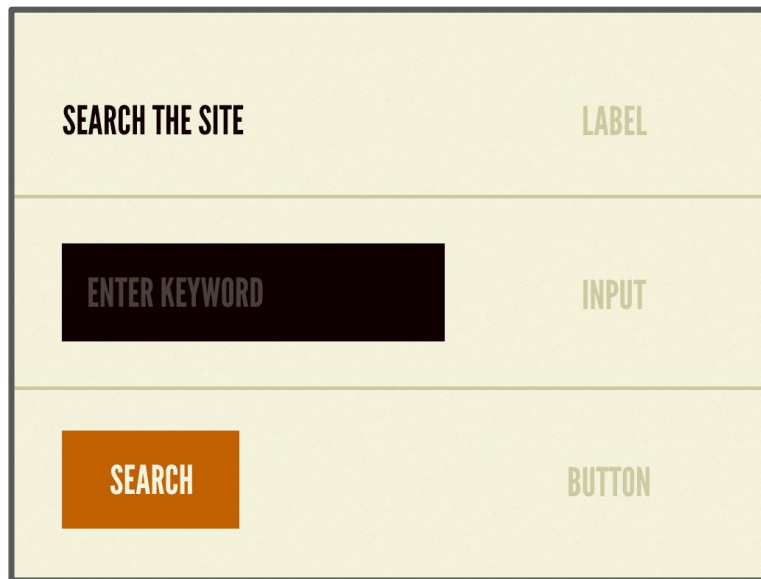


Image from [atomicdesign.bradfrost.com](https://atomicdesign.bradfrost.com)





# Design systems – Atomic design: Molecule

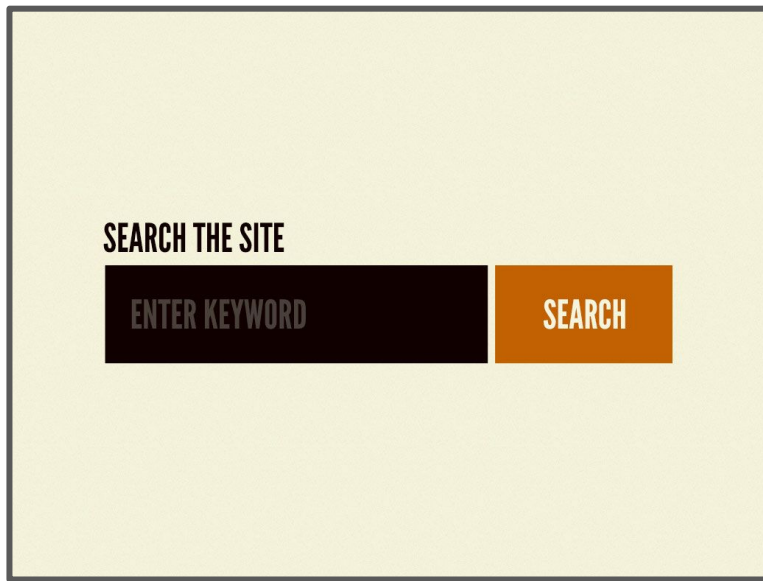
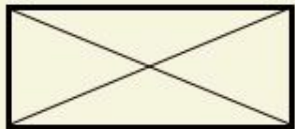


Image from [atomicdesign.bradfrost.com](https://atomicdesign.bradfrost.com)



# Design systems – Atomic design: Organism



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SEARCH

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# Design systems - Atomic design: Template

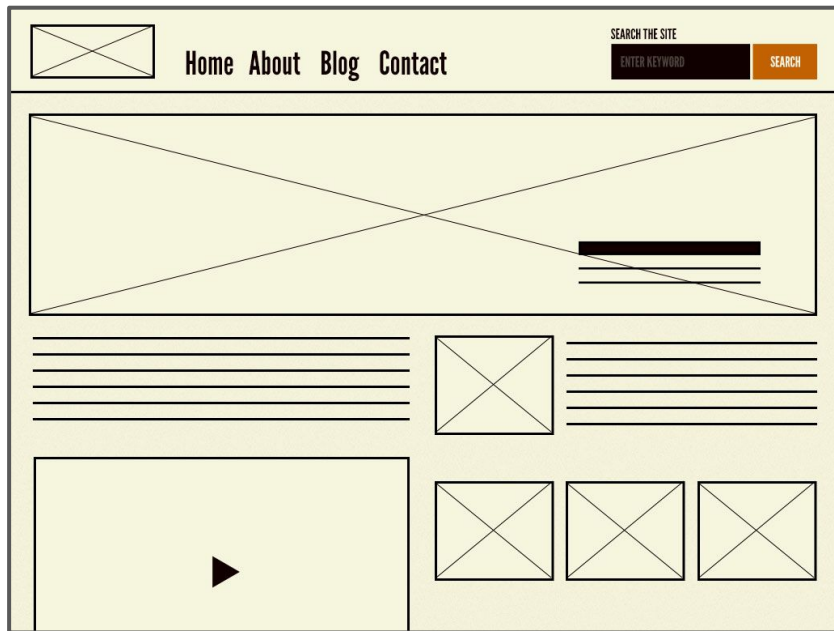


Image from [atomicdesign.bradfrost.com](http://atomicdesign.bradfrost.com)



# Design systems - Atomic design: Page

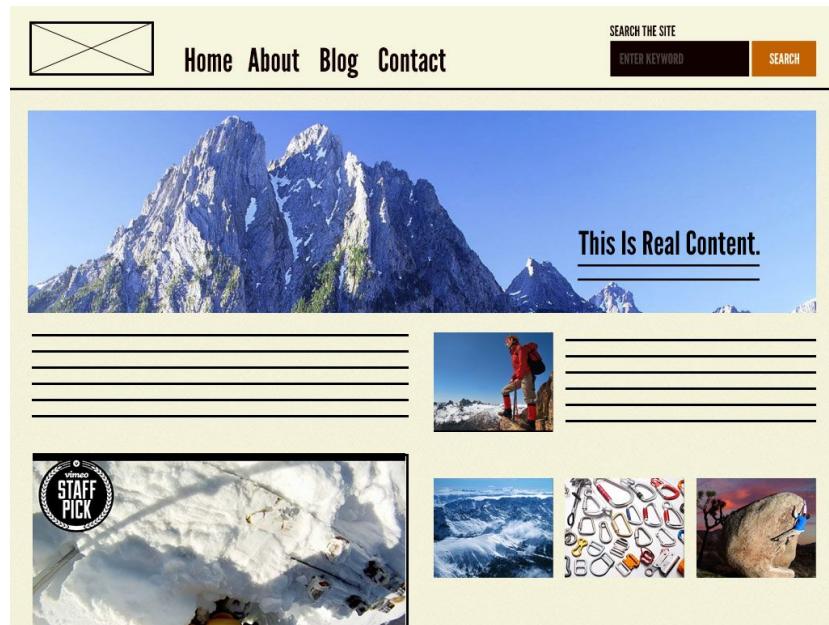


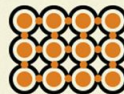
Image from [atomicdesign.bradfrost.com](http://atomicdesign.bradfrost.com)



ATOMS



MOLECULES



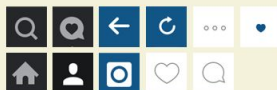
ORGANISMS



TEMPLATES



PAGES



PHOTO

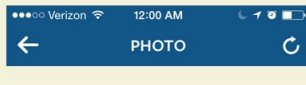
XXXXXX likes

thisistheusersinstagramhandle

2h

Lorem ipsum dolor sit amet, consectetur adipiscing

1080 x 1080



thisistheusersinstagramhandle 2h



XXXXXX likes

thisistheusersinstagramhandle Lorem ipsum dolor sit amet, consectetur adipiscing



thisistheusersinstagramhandle 2h

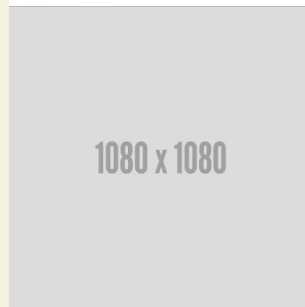


XXXXXX likes

thisistheusersinstagramhandle Lorem ipsum dolor sit amet, consectetur adipiscing



thisistheusersinstagramhandle 2h



XXXXXX likes

thisistheusersinstagramhandle Lorem ipsum dolor sit amet, consectetur adipiscing



brad\_frost 2h

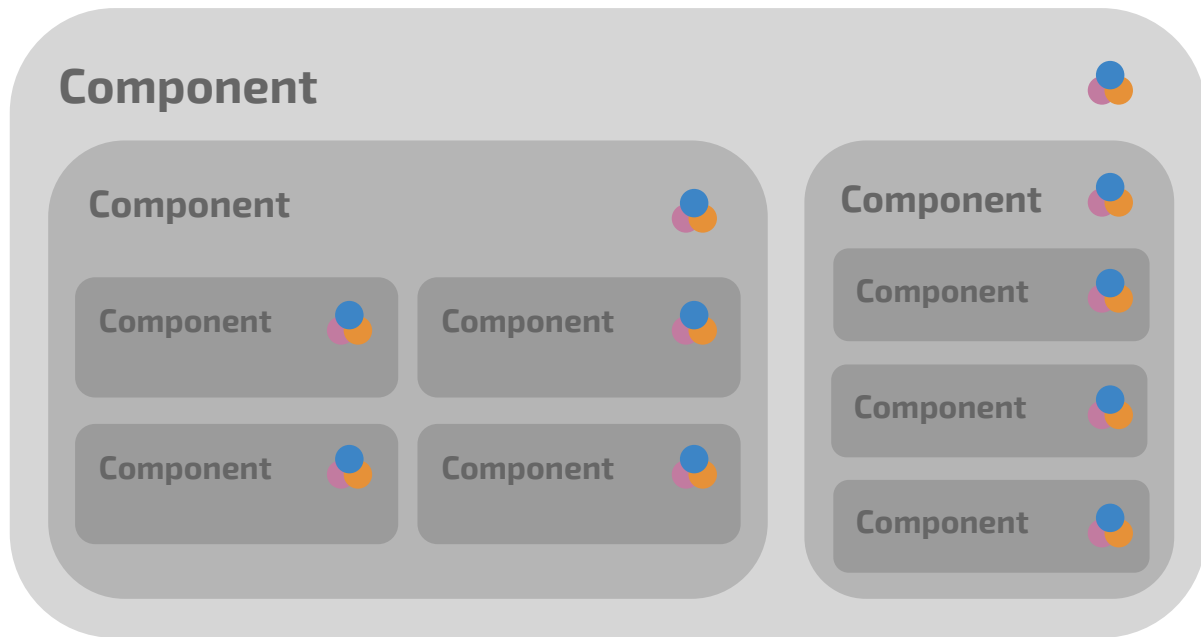


41 likes

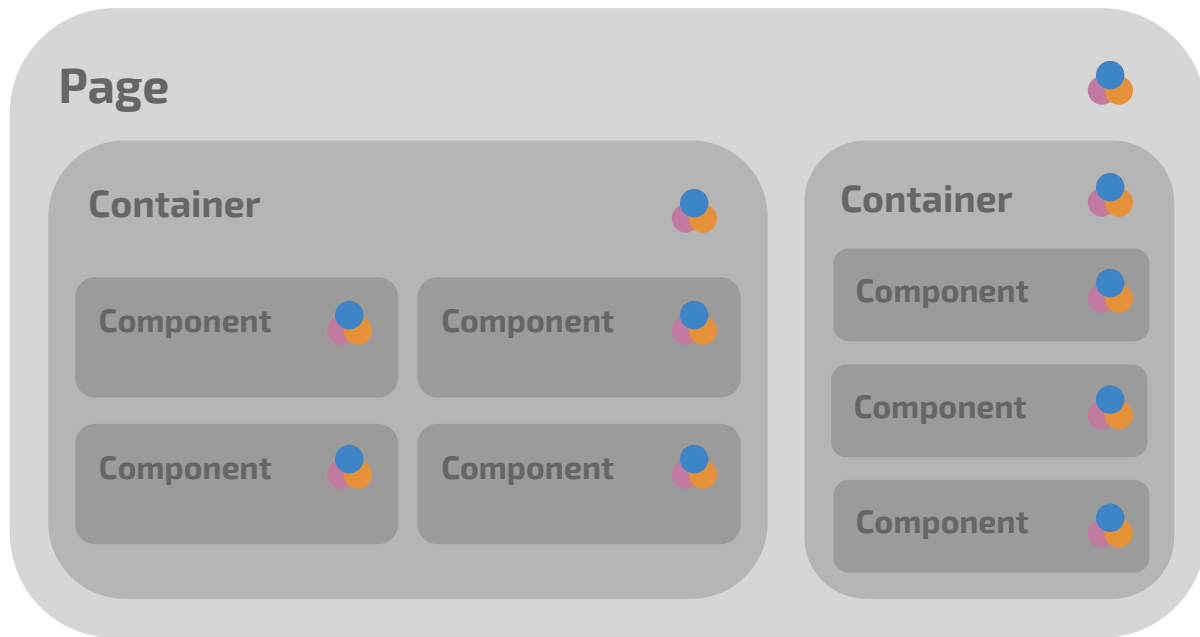
brad\_frost Hi!



# Design systems – Components-based architecture



# Design systems – Components-based architecture



# Design systems – Components-based architecture

**Page:** Route

**Container:** State

**Component:** Presentation



# Index



Design systems



**Modern Javascript**



React anatomy



React Ecosystem

# Modern Javascript – Syntax



Identifiers



Arrow Functions



String literals



Destructuring



Classes



Modules

# Index



Design systems



Modern Javascript



**React anatomy**



React Ecosystem



# React Anatomy



Reconciliation



Renderization



# React Anatomy



**Reconciliation**



Renderization



# React Anatomy - Reconciliation





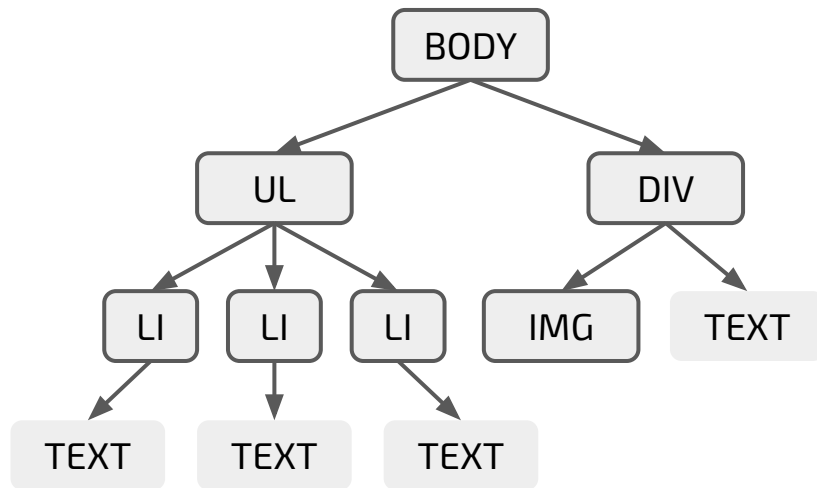
# React Anatomy - Reconciliation

View

v1

```
<body>
  <ul>
    <li>One </li>
    <li>Two </li>
    <li>Three </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

DOM





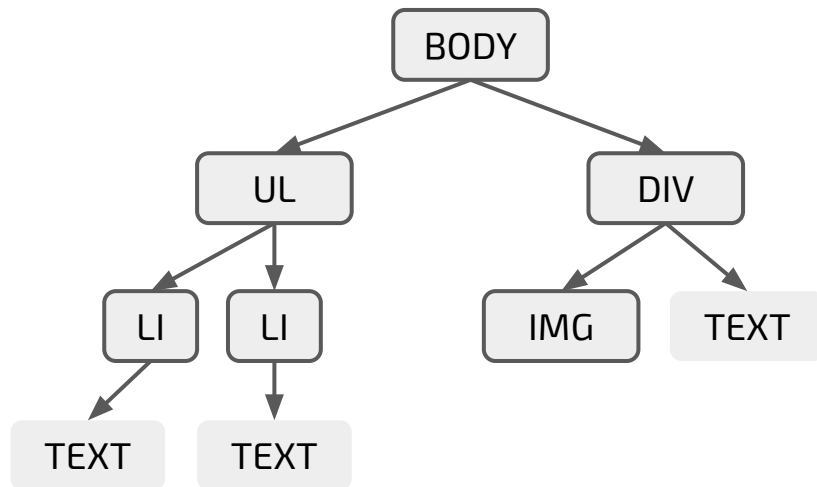
# React Anatomy - Reconciliation

View

v2

```
<body>
  <ul>
    <li>One </li>
    <li>Two </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

DOM







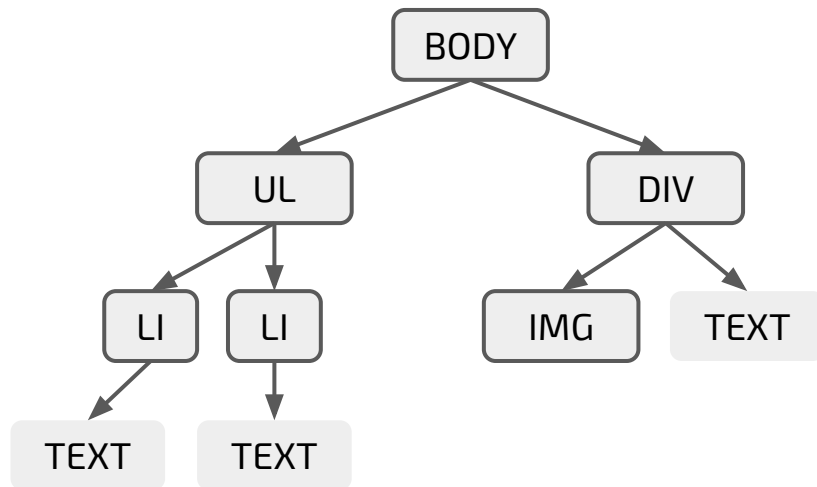
# React Anatomy - Reconciliation

View

v2

```
<body>
  <ul>
    <li>One </li>
    <li>Two </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

DOM





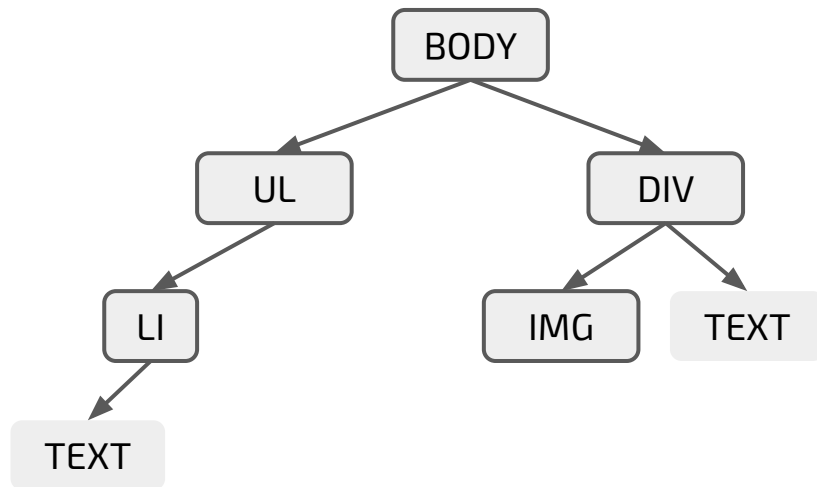
# React Anatomy - Reconciliation

View

v3

```
<body>
  <ul>
    <li>One </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

DOM





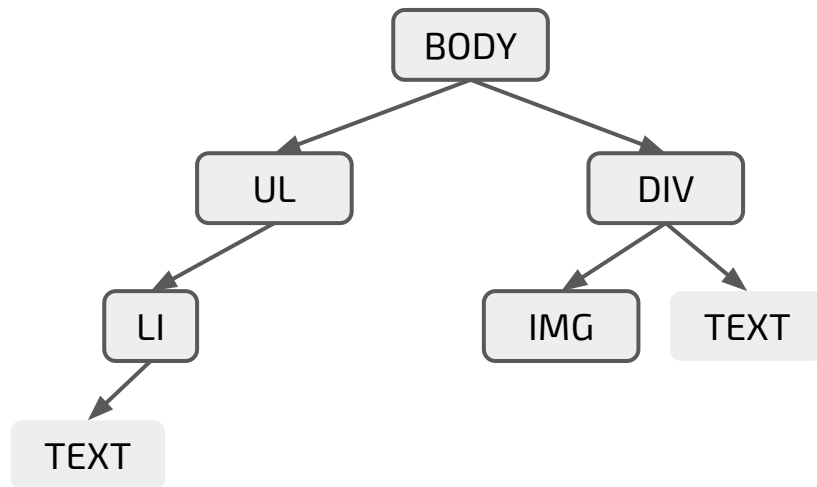
# React Anatomy - Reconciliation

View

v3

```
<body>
  <ul>
    <li>One </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

DOM





# React Anatomy - Reconciliation





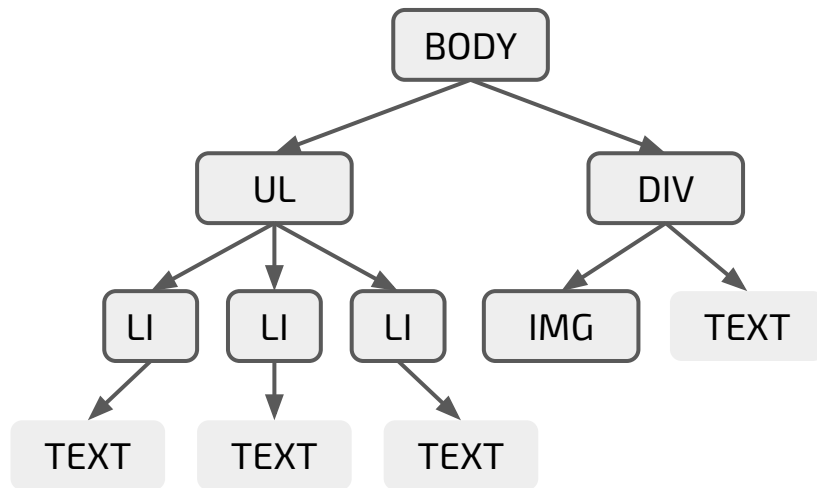
# React Anatomy - Reconciliation

View

v1

```
<body>
  <ul>
    <li key="1">One </li>
    <li key="2">Two </li>
    <li key="3">Three </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

VIRTUAL DOM





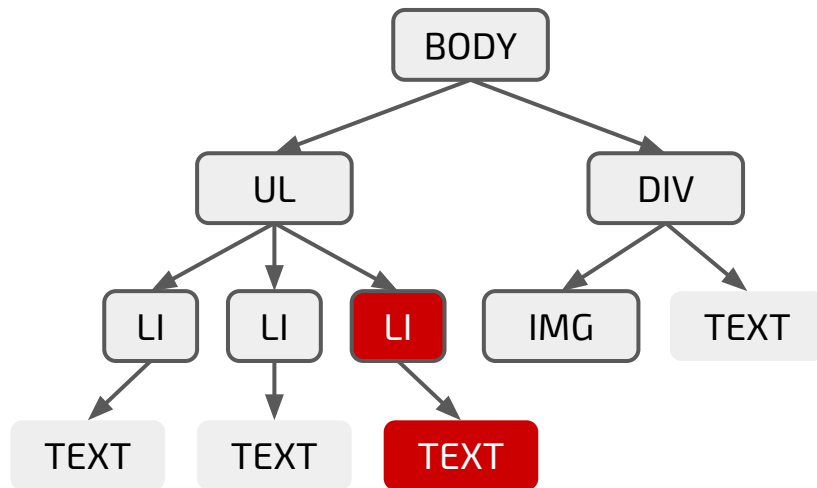
# React Anatomy - Reconciliation

View

v1

```
<body>
  <ul>
    <li key="1">One </li>
    <li key="2">Two </li>
    <li key="3">Three </li>
  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

VIRTUAL DOM





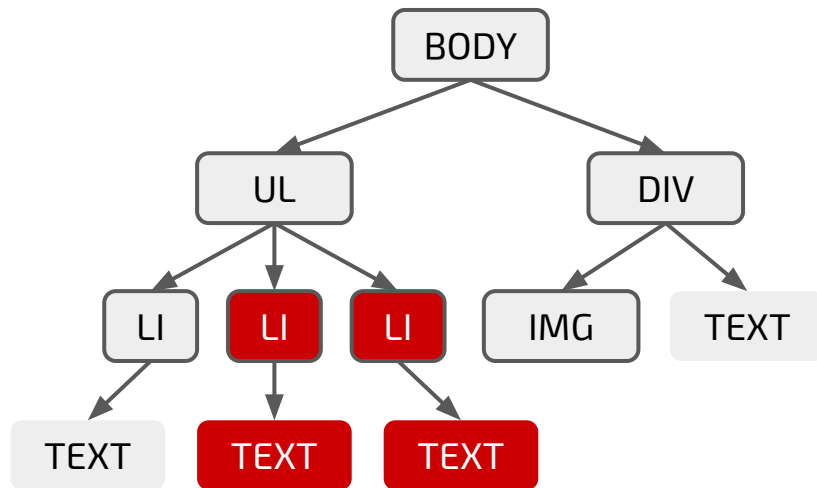
# React Anatomy - Reconciliation

View

v1

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    <li key="1">One </li>
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VIRTUAL DOM





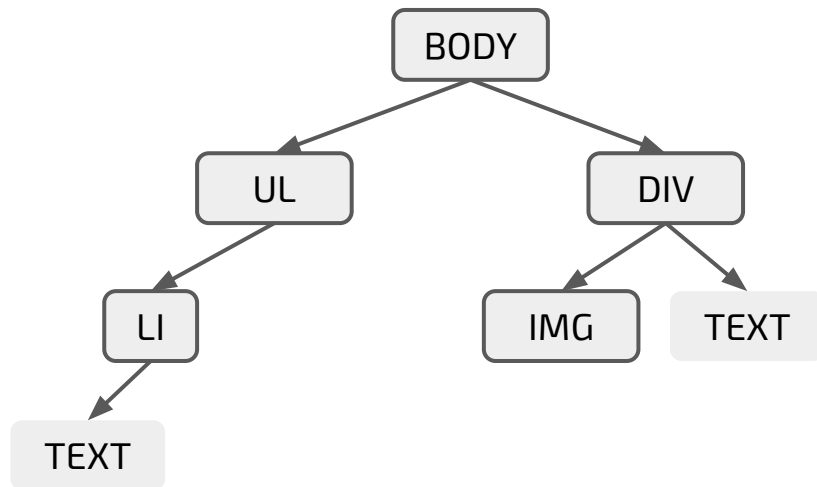
# React Anatomy - Reconciliation

View

v2

```
<body>
  <ul>
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  </ul>
  <div class="my-class">
    </script>
    Some image description
  </div>
</body>
```

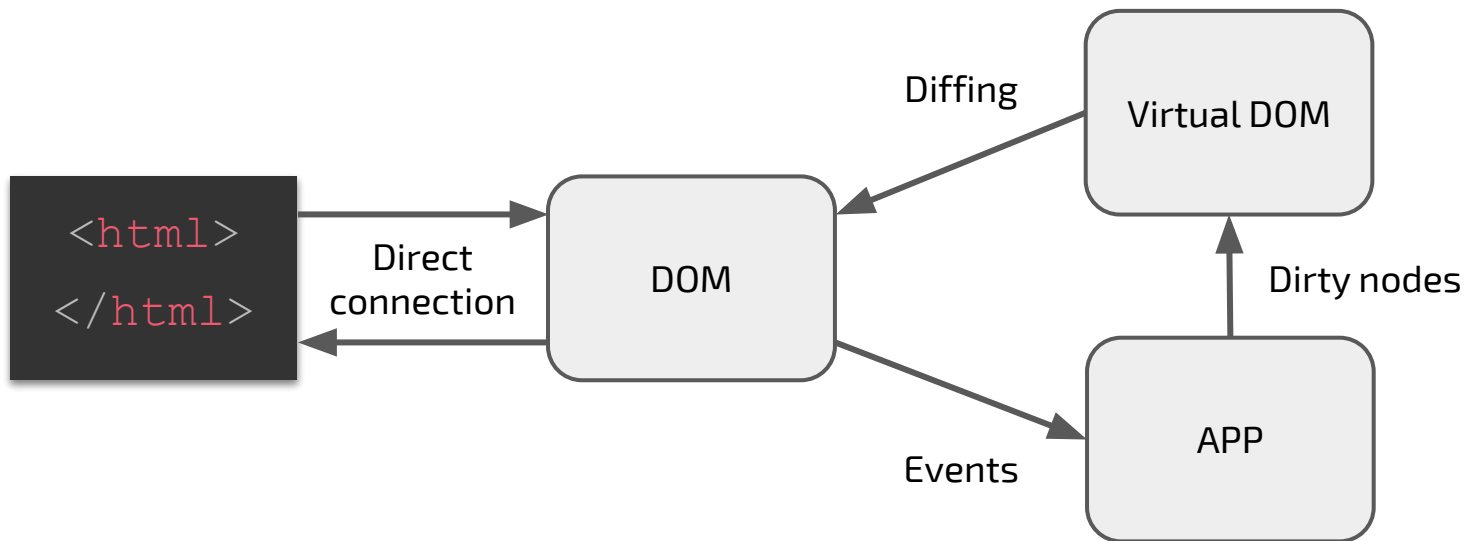
VIRTUAL DOM







# React Anatomy - Reconciliation





# React Anatomy



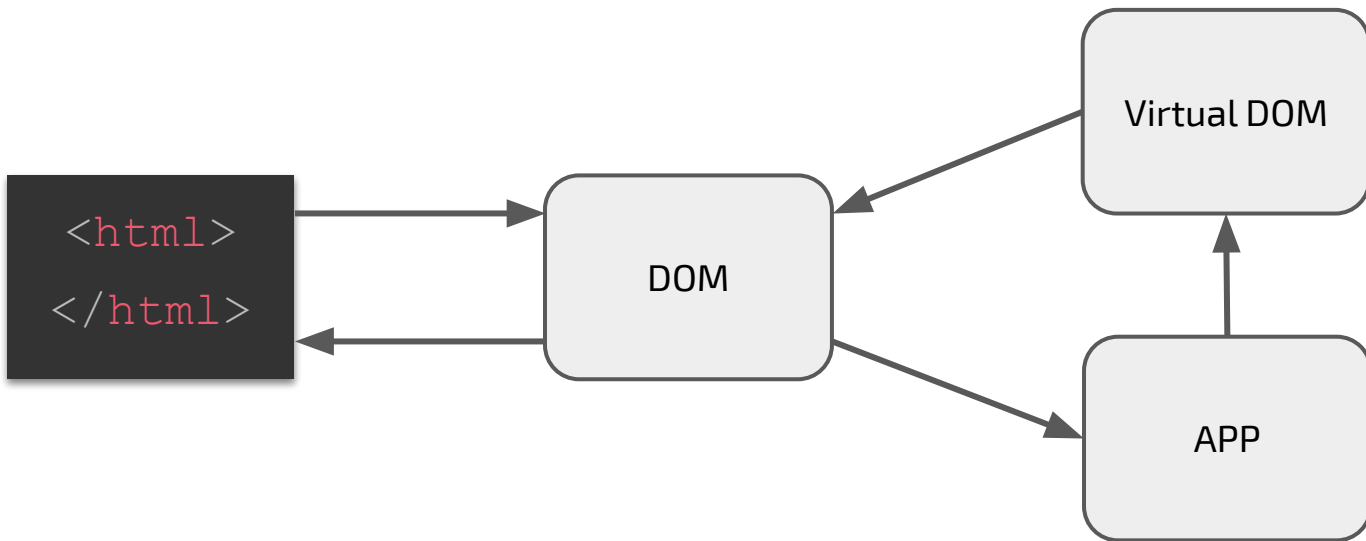
Reconciliation



**Renderization**

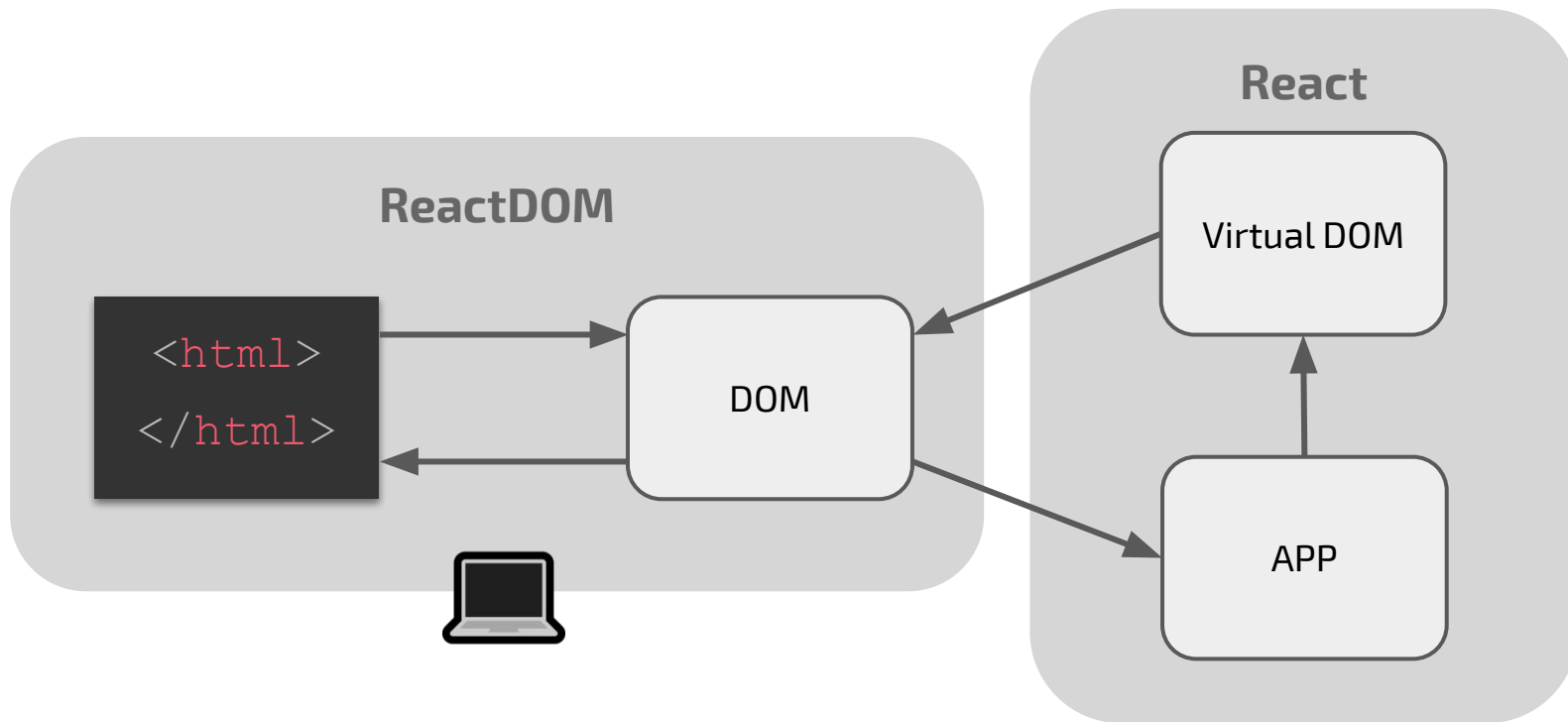


# React Anatomy - Renderization



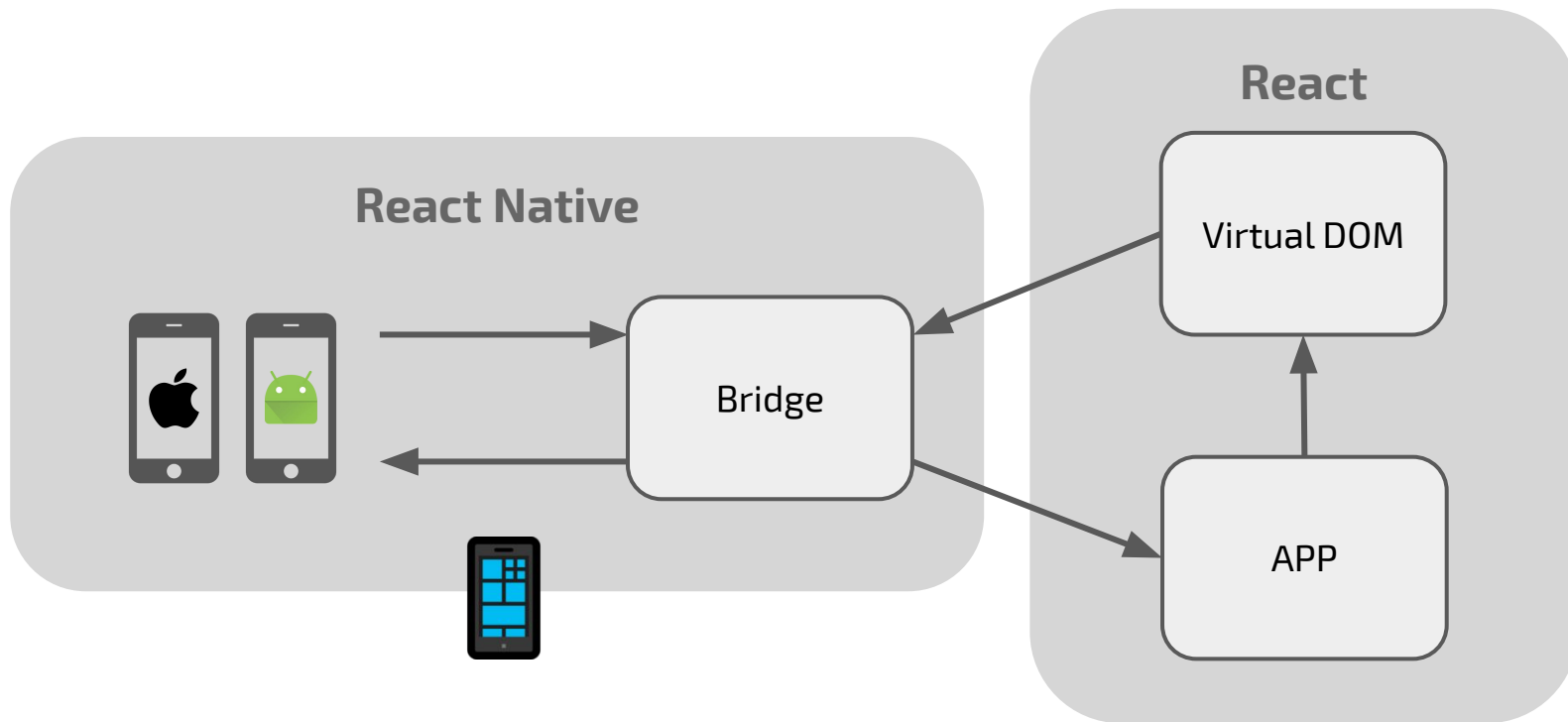


# React Anatomy - Renderization



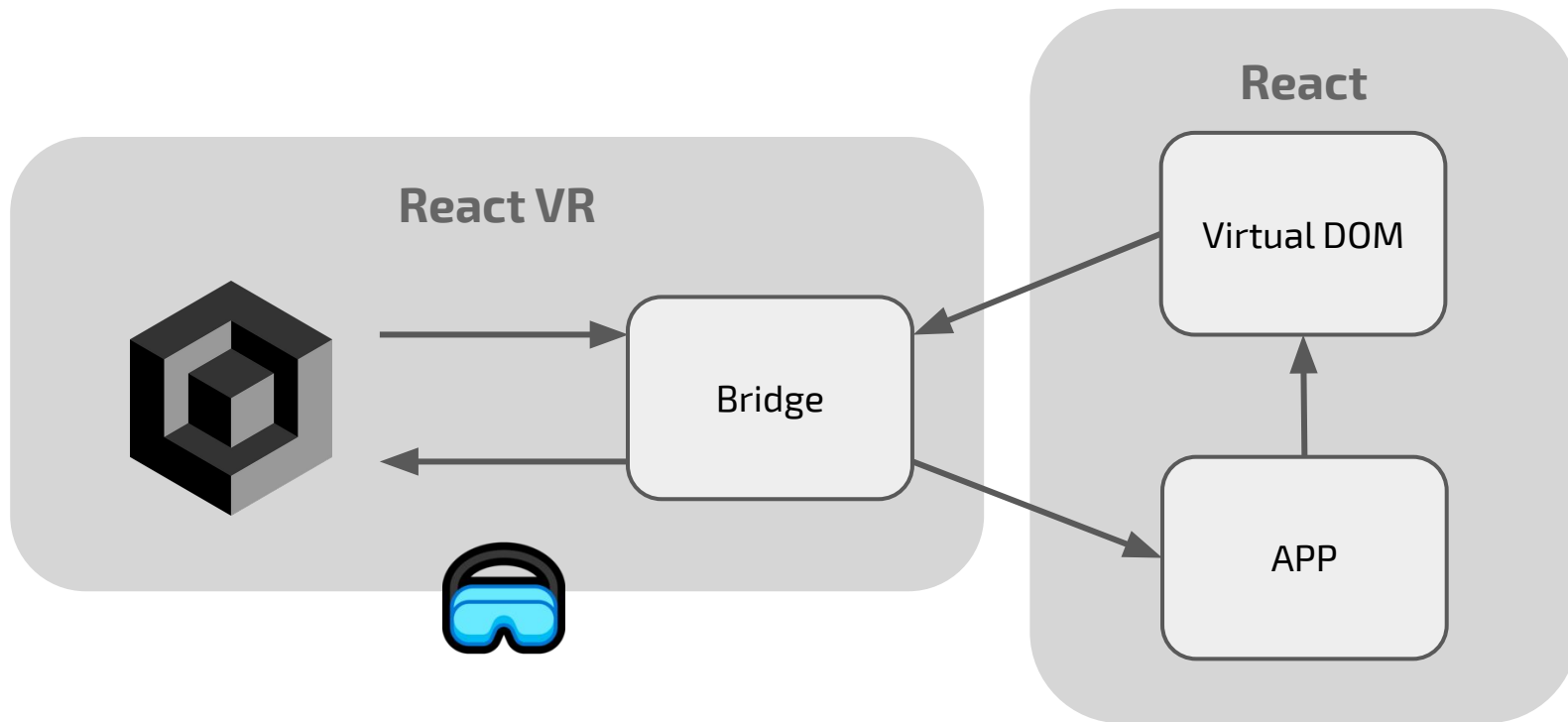


# React Anatomy - Renderization



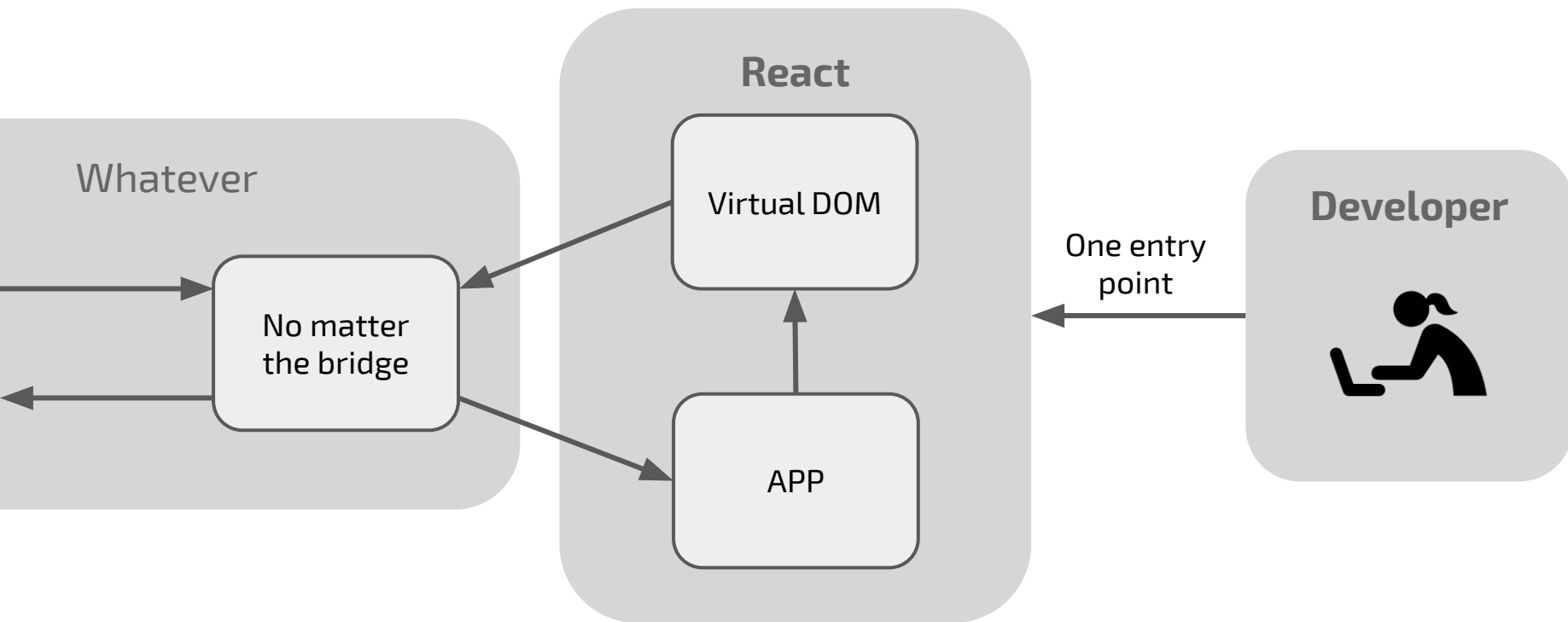


# React Anatomy - Renderization





# React Anatomy - Renderization



# Index



Design systems



Modern Javascript



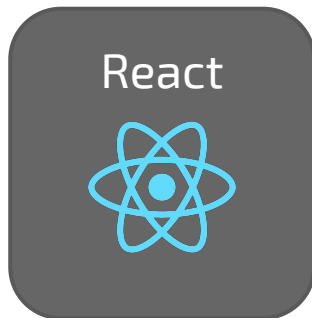
React anatomy



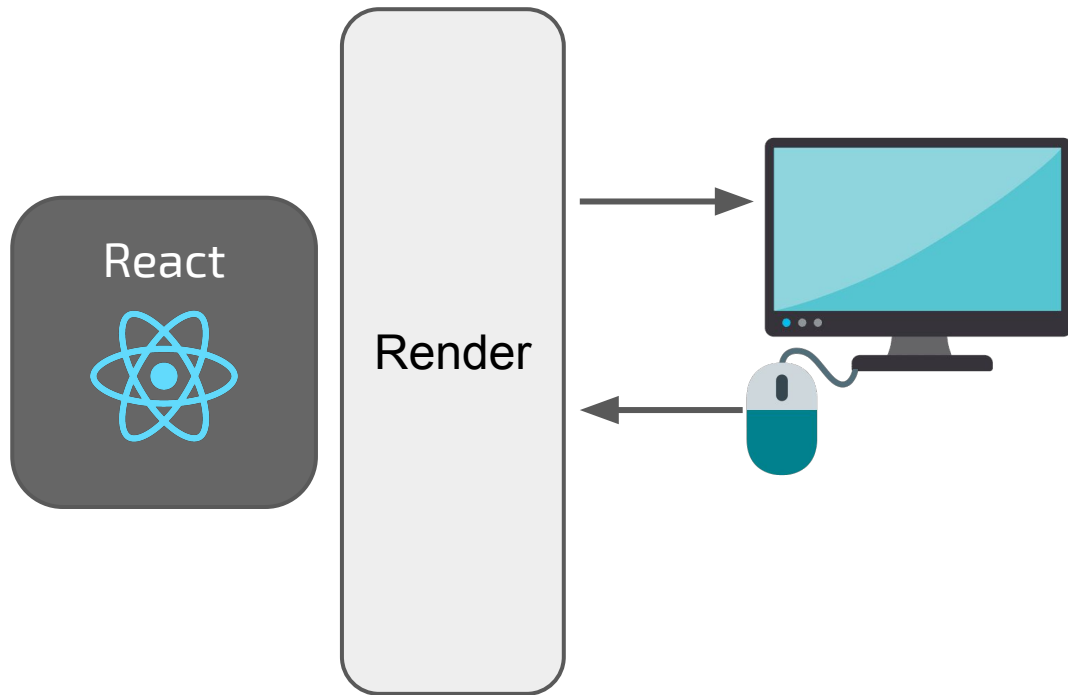
**React Ecosystem**



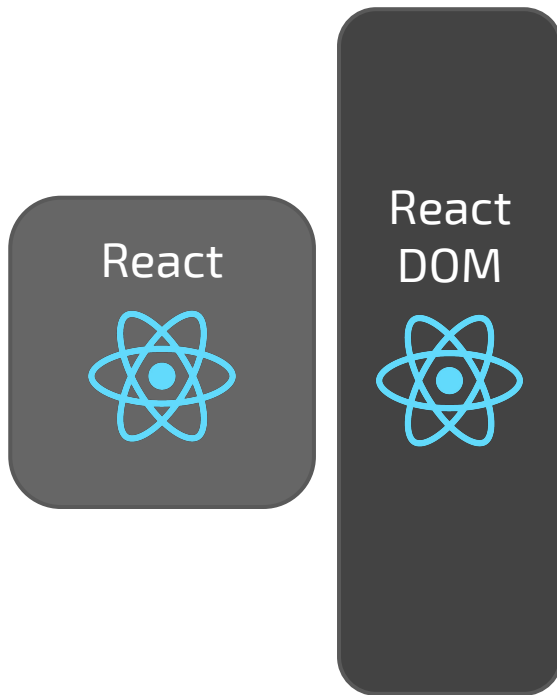
# React Ecosystem



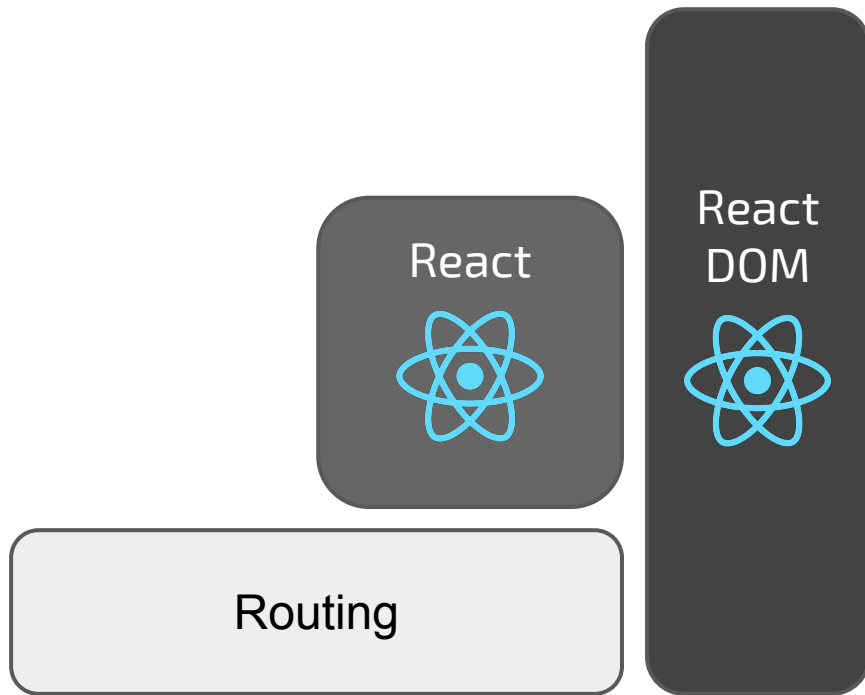
# React Ecosystem



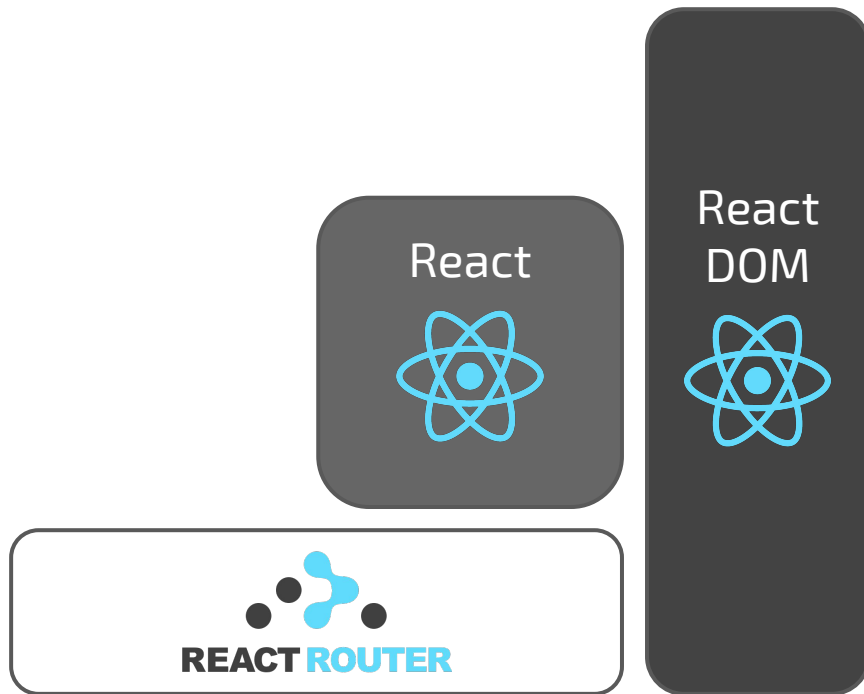
# React Ecosystem



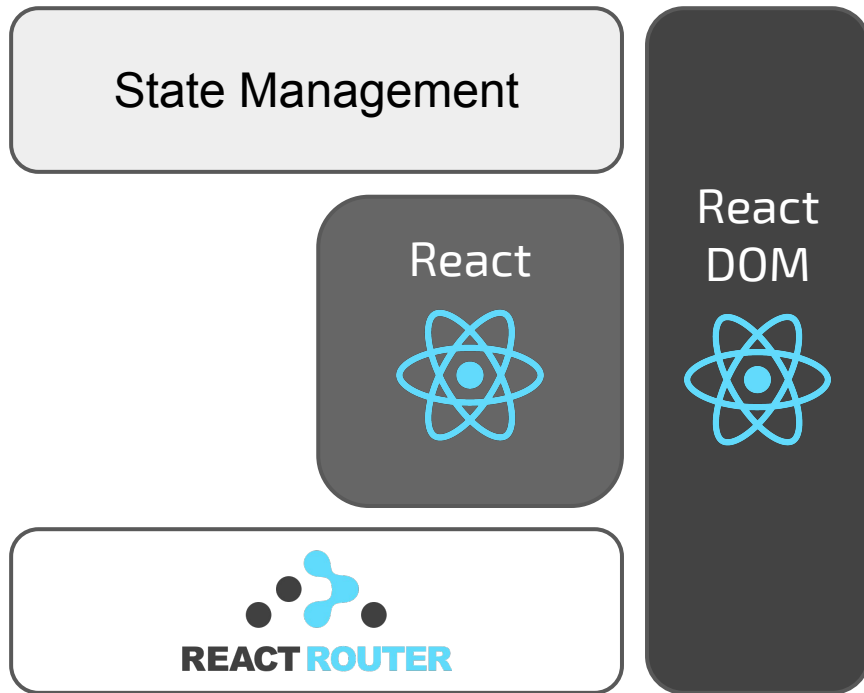
# React Ecosystem



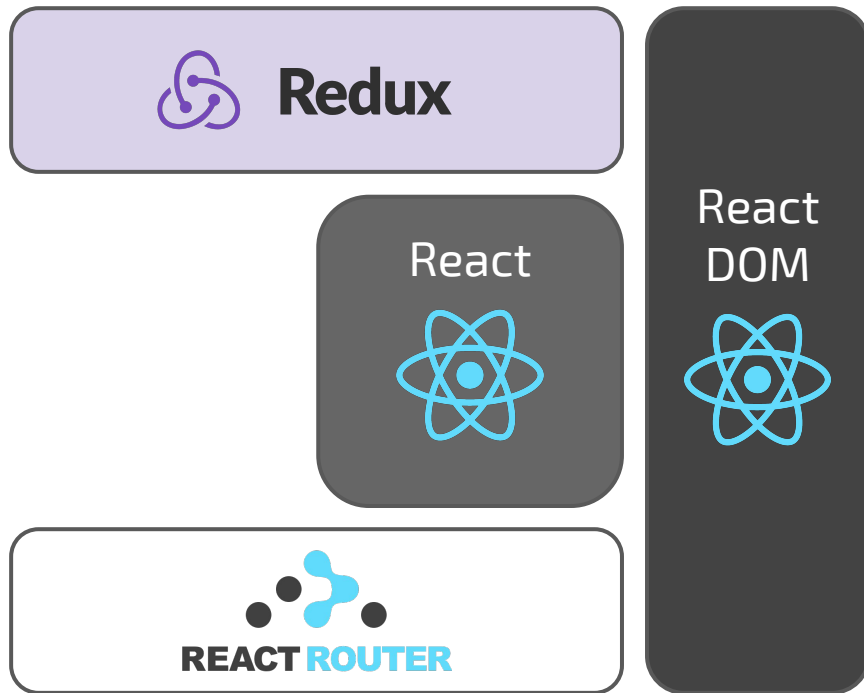
# React Ecosystem



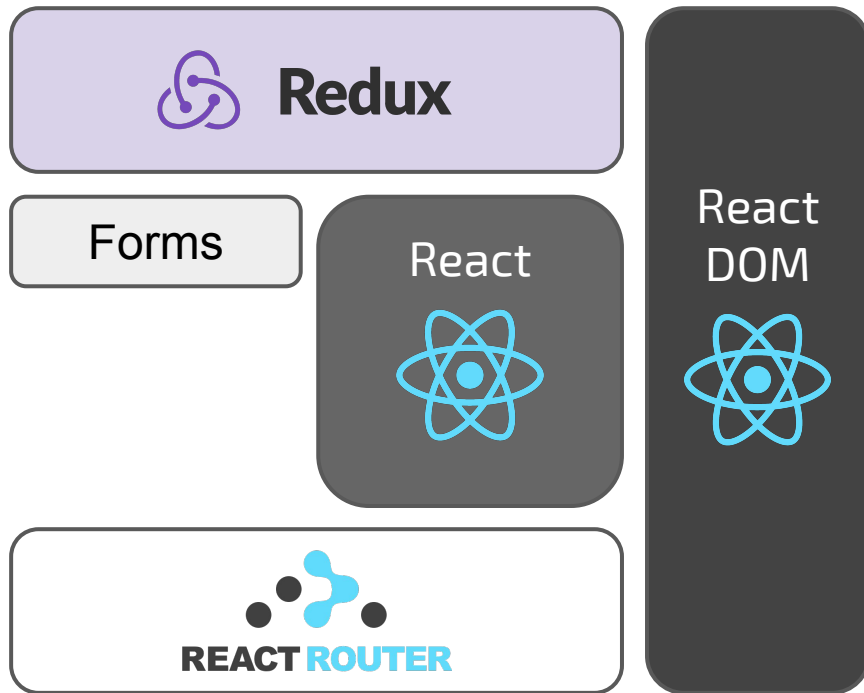
# React Ecosystem



# React Ecosystem

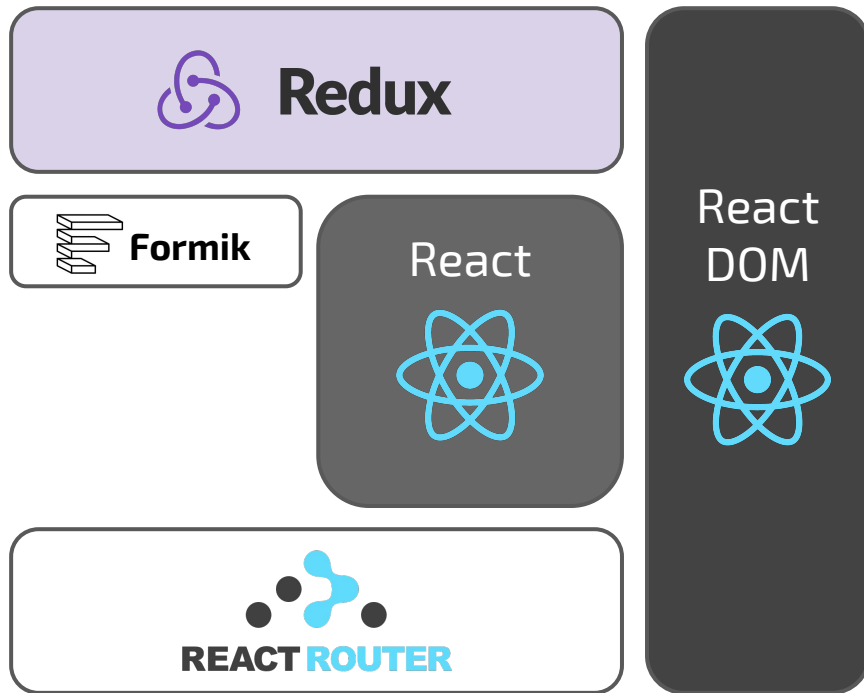


# React Ecosystem

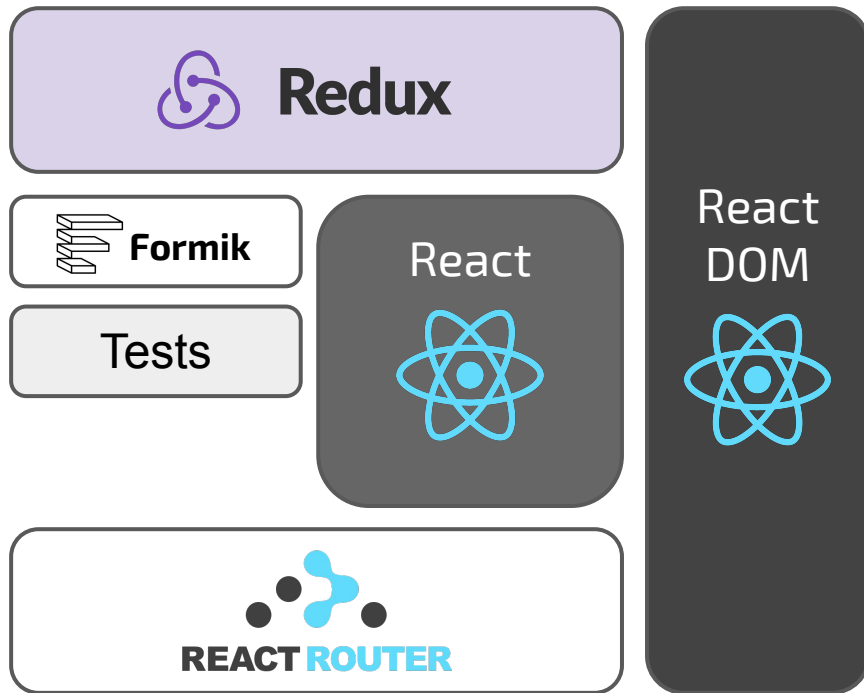




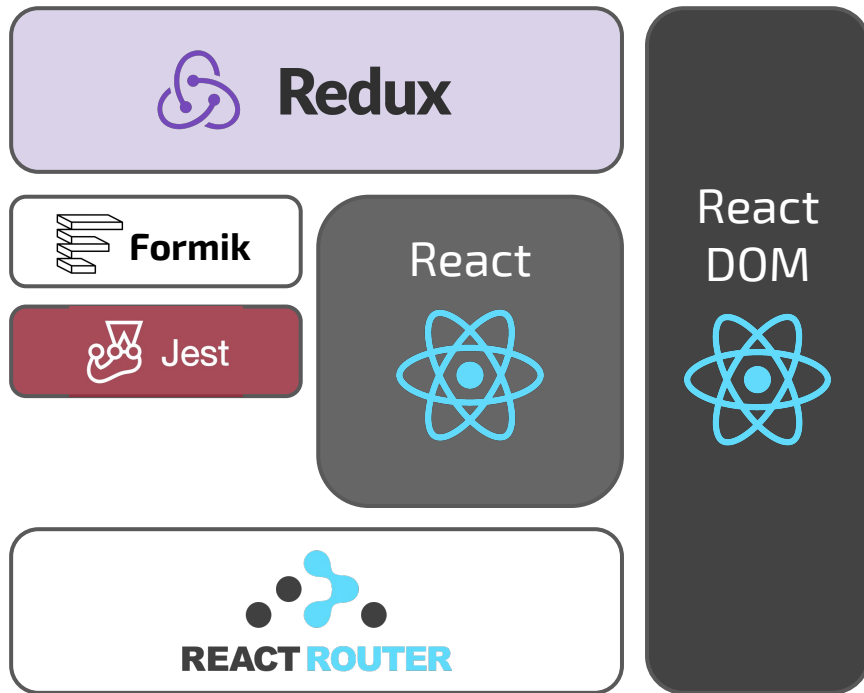
# React Ecosystem



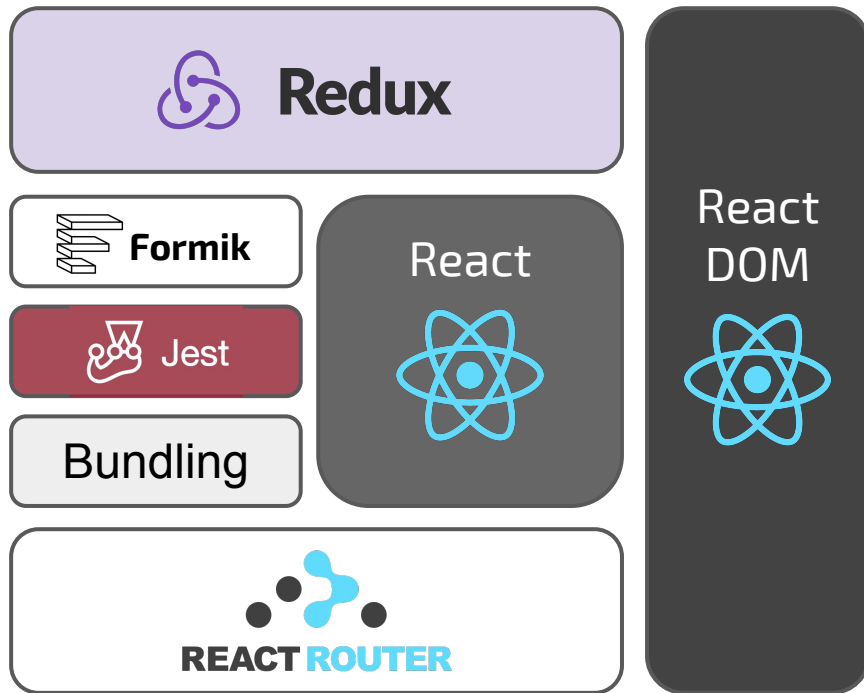
# React Ecosystem



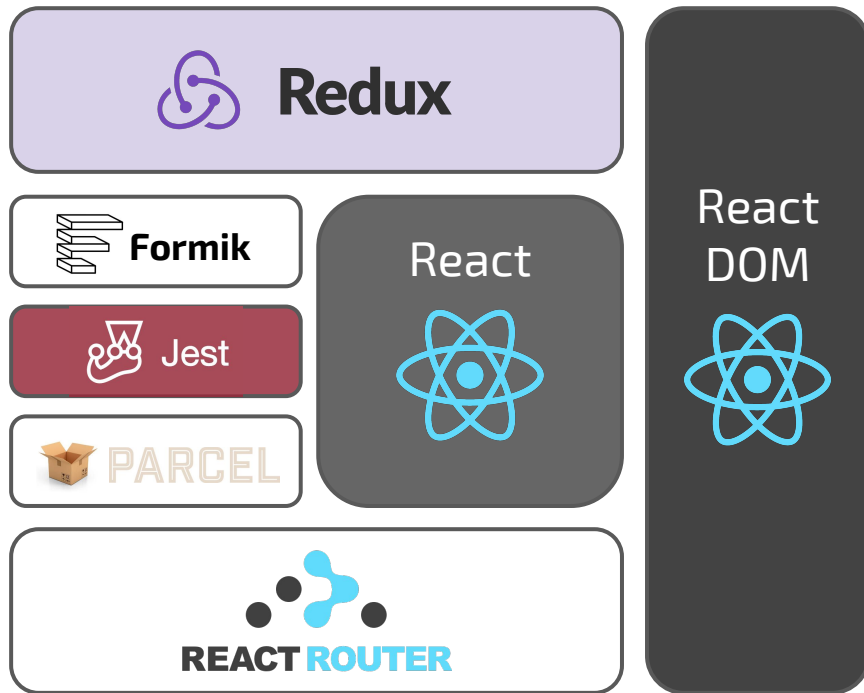
# React Ecosystem



# React Ecosystem



# React Ecosystem



# Index

- ✓ Design systems
- ✓ Modern Javascript
- ✓ React anatomy
- ✓ React Ecosystem



# Exercises!

1. Extract atoms, molecules, organisms, and template of the page displayed at [fonts.google.com](https://fonts.google.com).
2. Try to build a different template from the same elements.



# Exercises!

Google Fonts

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🔍 Search

Viewing 915 of 915 font families

**Roboto** +

Christian Robertson (12 styles)

The sky was cloudless  
and of a deep dark blue.

**Srisakdi** +

Cadson Demak (2 styles)

*The spectacle before us  
was indeed sublime.*

**Open Sans** +

Steve Matteson (10 styles)

Then came the night of  
the first falling star.

**Lato** +

Łukasz Dziedzic (10 styles)

Waves flung themselves  
at the blue evening.

**Montserrat** +

Julietta Ulanovsky, Sol Matas, Juan Pablo del Peral,  
Jacques Le Bailly (18 styles)

The spectacle before  
us was indeed  
sublime.

**Roboto Condensed** +

Christian Robertson (6 styles)

All their equipment and  
instruments are alive.

Categories

- ☒ Serif
- ☒ Sans Serif
- ☒ Display
- ☒ Handwriting
- ☒ Monospace

Sorting

Trending ▾

Languages

All Languages ▾

Number of styles

☐

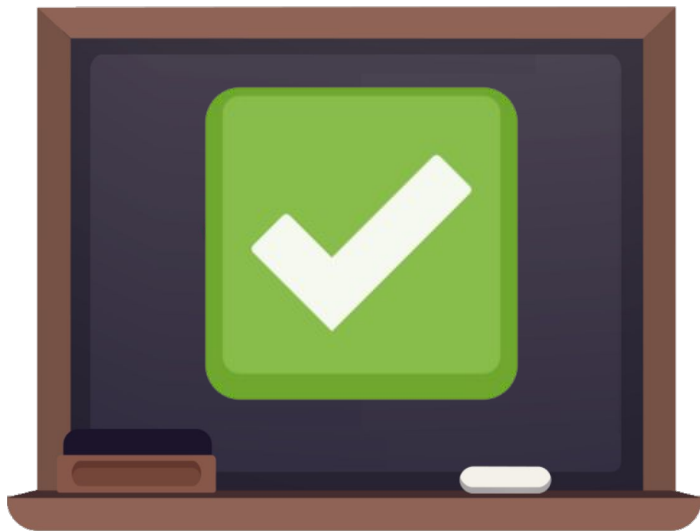
Thickness

☐

Slant

☐





# 1. Fundamentals

Introduction to React