A Practical Start with React

SHOULD YOU REACT?

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Module Overview

- What we're building
- What you should know
- Why React is great
- Working with components
- React compared to Angular and Vue

Prerequisites

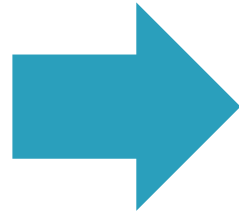**JavaScript (ES 2017/ES8)**

Bootstrap 4

Element Tree

```
<div class="split">
  <input />
  <p>Sunday 4:00 pm</p>
</div>
```

→

```
React.createElement(
  "div",
  { className: "split" },
    React.createElement("input"),
    React.createElement(
      "p",
      null,
      "Sunday 4:00 pm")
);
```

What is displayed in the browser is a reflection of the state of the application.

Tree Reconciliation

```
React.createElement(
  "div",
  { className: "split" },
      React.createElement("input"),
      React.createElement(
        "p",
        null,
        "Sunday 4:01 pm")
);
```

```
React.createElement(
  "div",
  { className: "split" },
      React.createElement("input"),
      React.createElement(
        "p",
        null,
        "Sunday 4:00 pm")
);
```

JSX

```
React.createElement(
  "div",
  { className: "split" },
      React.createElement("input"),
        React.createElement(
          "p",
          null,
          "Sunday 4:01 pm")
);
```
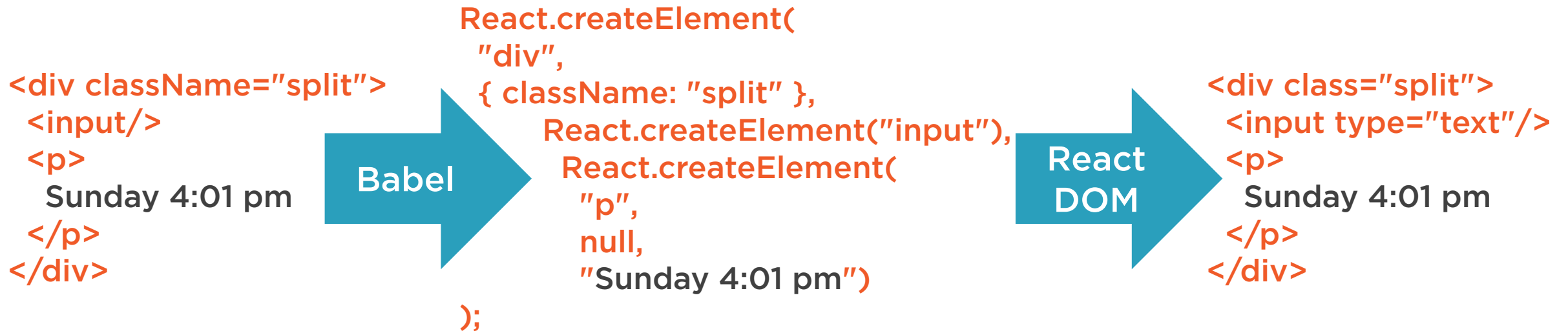
```
<div className="split">
  <input/>
  <p>
    Sunday 4:01 pm
  </p>
</div>
```
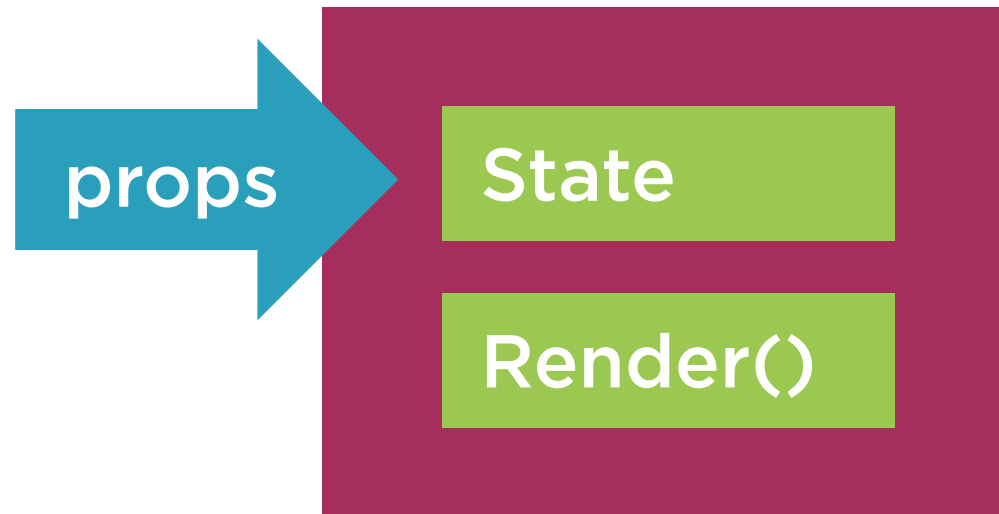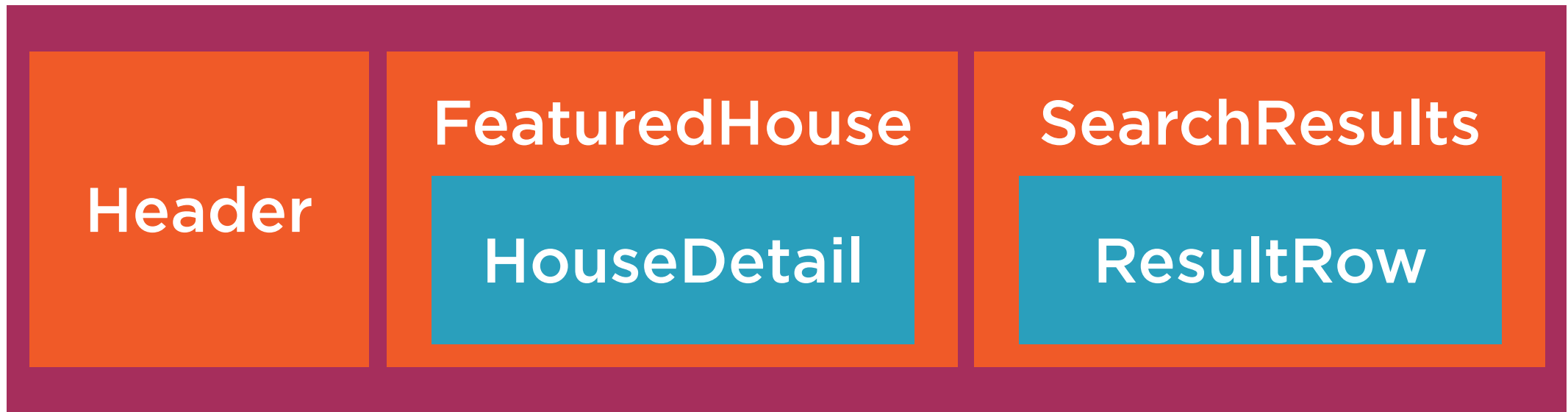
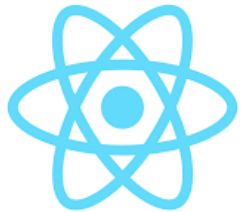# The React Workflow

<div className="split">
 <input/>
 <p>
    Sunday 4:01 pm
 </p>
</div>

Babel

React.createElement(
 "div",
 { className: "split" },
    React.createElement("input"),
    React.createElement(
     "p",
     null,
     "Sunday 4:01 pm")
);

React DOM

<div class="split">
 <input type="text"/>
<p>
    Sunday 4:01 pm
 </p>
</div>

React is a javascript library to create and compose components

Component

<Component prop="value"/>

Composition

Comparing React to Others

These are all excellent products

Comparing React to Others
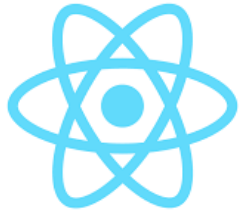
React	Angular	Vue
Components	Components	Components
Library	Framework	Library
Facebook	Google	Community
MIT	MIT	MIT
1 way data-binding	2 way data-binding	1 way data-binding
UI in JavaScript	UI in HTML	UI in HTML

Summary

Smart UI updates

Tree reconciliation

JSX

Components

Alternatives