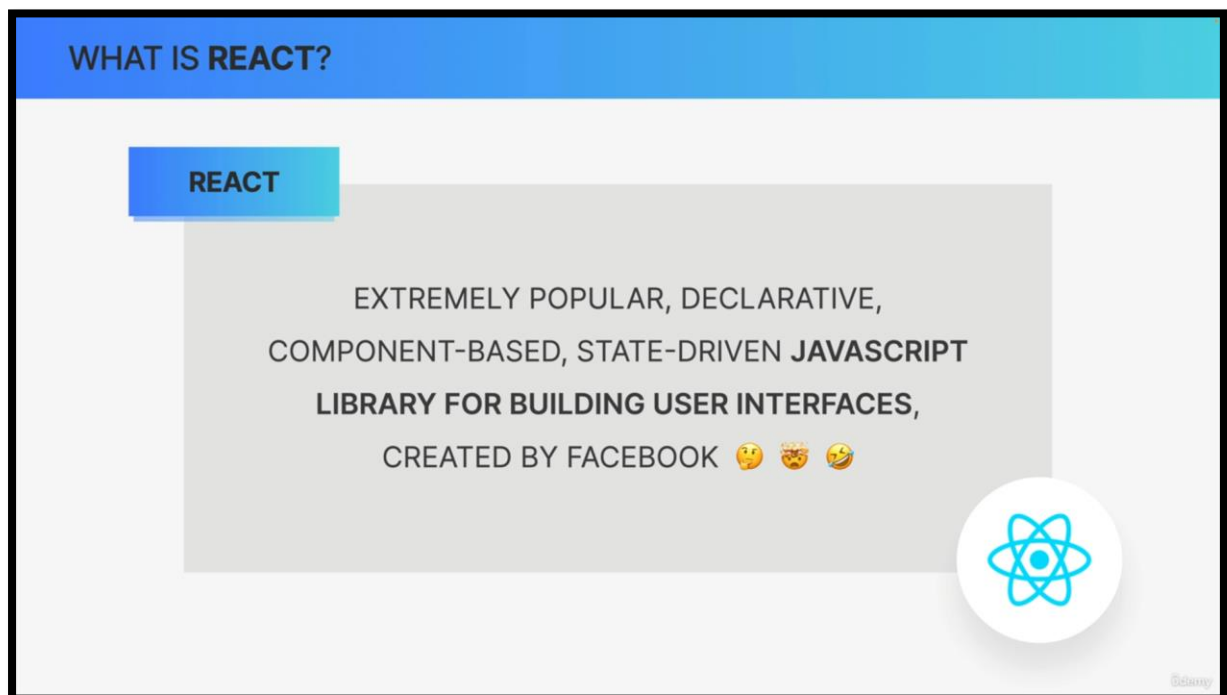


React is a JavaScript library for building user interfaces.



We can deconstruct this definition and learn about what React actually is, step by step.

WHAT IS REACT?

Based on components

Declarative

State-driven

JavaScript library

Extremely popular

Created by facebook

REACT

EXTREMELY POPULAR, DECLARATIVE,
COMPONENT-BASED, STATE-DRIVEN **JAVASCRIPT**
LIBRARY FOR BUILDING USER INTERFACES,
CREATED BY FACEBOOK 🤖🔥😄

Scrim

REACT IS BASED ON COMPONENTS

Based on components

Declarative

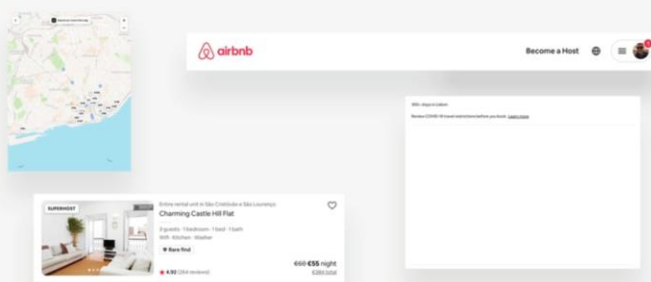
State-driven

JavaScript library

Extremely popular

Created by facebook

👉 Components are the **building blocks** of user interfaces in React



Scrim

So, starting with component-based design. React is all about components such as buttons, input fields, search bars, and so on. So, components are the building blocks of user interfaces in React.

REACT IS BASED ON COMPONENTS

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Components are the **building blocks** of user interfaces in React

Component 1
Component 2
Component 3

Webpage

React takes all the components and draw them on a webpage.

REACT IS BASED ON COMPONENTS

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Components are the **building blocks** of user interfaces in React

Component 1
Component 2
Component 3

Webpage

We build complex UIs by **building and combining multiple components**

We built complex UIs in React by building multiple components and then combining these components like LEGO pieces.

REACT IS BASED ON COMPONENTS

Based on components

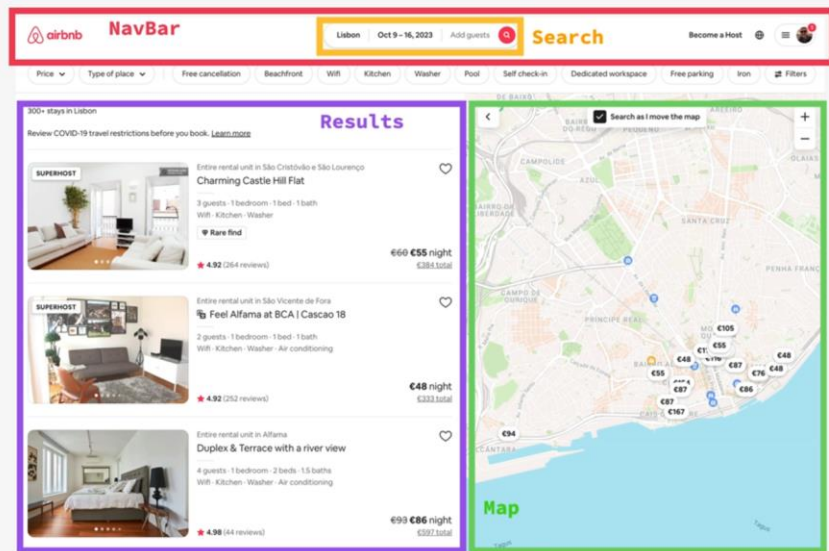
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For example, to create a complex application like Airbnb. So, the navbar, the search bar, the results panel, and the map.

REACT IS BASED ON COMPONENTS

Based on components

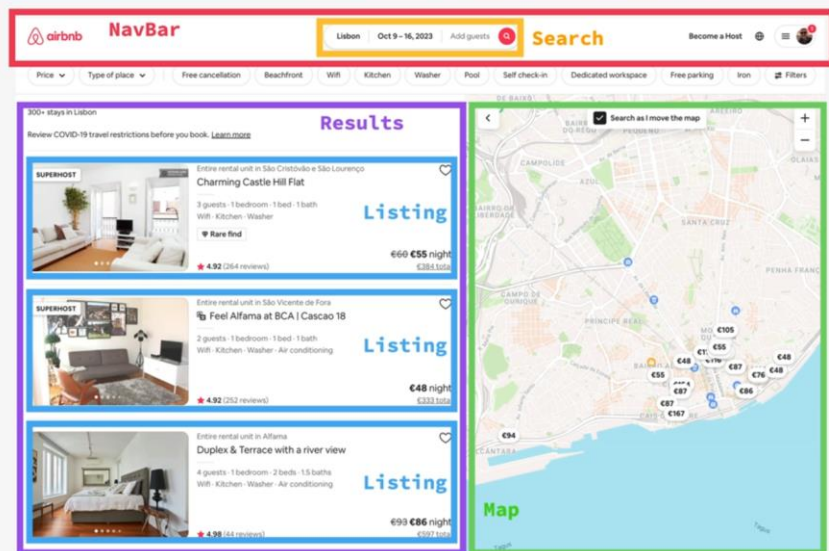
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Another thing that we do with components is to reuse them. For example, here in the results panel, there are multiple listing that look quite similar. So, we can create a listing component and then reuse it three times here, simply adjusting the data a little bit.

REACT IS DECLARATIVE

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- 👉 We **describe** how components look like and how they work using a **declarative syntax** called **JSX**
- 👉 **Declarative**: telling React what a component should look like, **based on current data/state**
- 👉 React is **abstraction** away from DOM: we **never touch the DOM**
- 👉 **JSX**: a syntax that **combines** **HTML** **CSS** **JavaScript** as well as referencing **other components**

JSX returned from a component

```
return (

Search



become a host



stays in Lisbon



listing



listing



listing



listing

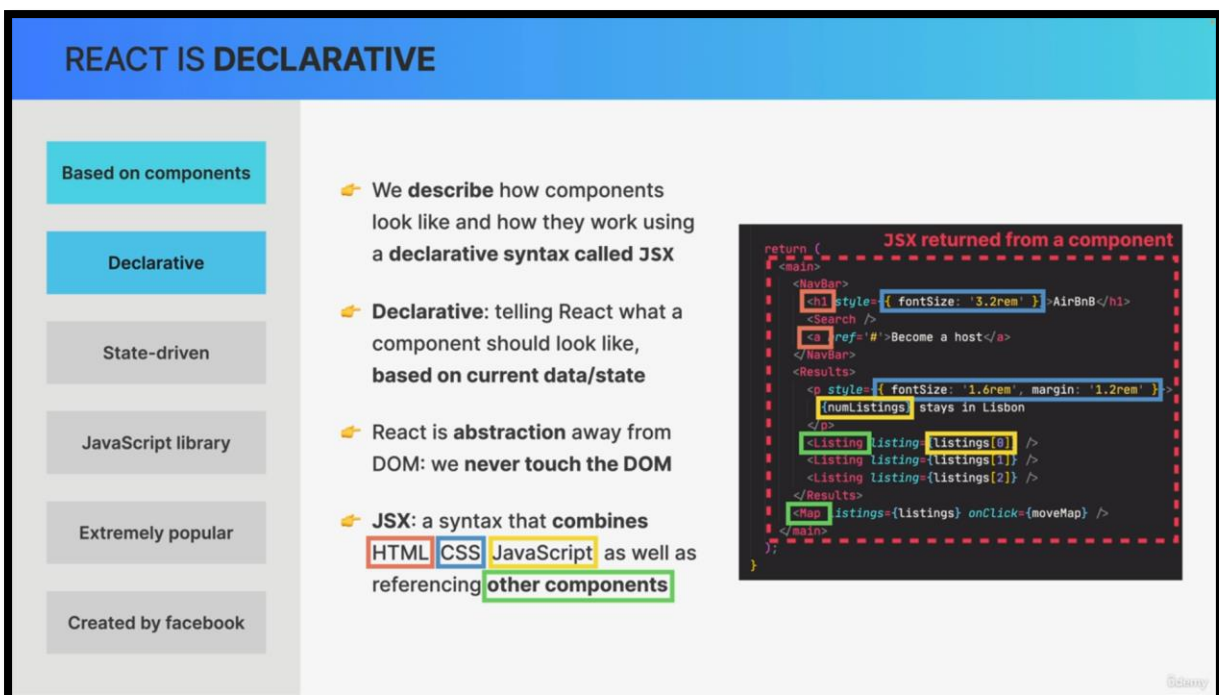


listing



listing


```



Now, since we built complex UIs by combining multiple components, each component must have all the information about what it looks like, right?

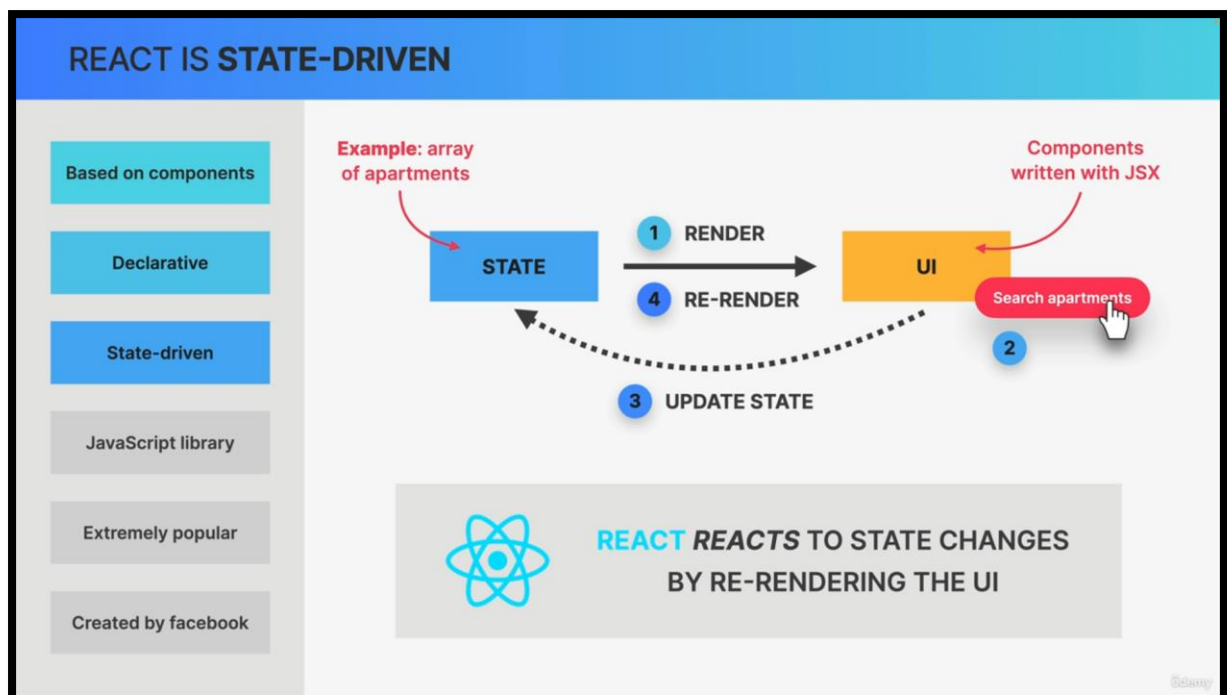
So, in order to describe what each component looks like and how it works, we use a special declarative syntax called JSX.

Declarative simply means that we tell React what a component and ultimately the entire UI should look like based on the current state.

So, React is basically a huge abstraction away from the DOM so that we never have to work with a DOM directly as we would with vanilla JavaScript.

So, we simply tell React what we want to happen when some data changes, but not how to do it. We do that using JSX.

So, JSX is basically a syntax that combines parts of HTML, CSS, JavaScript, and it even allows us to reference other React components.



But now you might wonder, if we never touch the DOM, then how does React update the UI?

That's where the concept of state comes into play. So, remember that the main goal of React is to always keep the UI in sync with data. Let's actually call that data a state. For example, an array of apartments on Airbnb.

So, based on our initial state, React will render a user interface using the components that we wrote using JSX. Then based on some event like a button click, the state might change. For example, more data about apartments might be loaded from an API.

Whenever the state changes, we manually update the state in our app and React will then automatically re-render the user interface to reflect that latest state. In other words, React reacts to state changes by re-rendering the UI. That is in fact the whole reason why React is called React in the first place.

REACT IS A JAVASCRIPT LIBRARY

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Is React a **library** or a framework?



Because React is only the "view" layer. We need to pick multiple external libraries to build a complete application

NEXT.JS **Remix**

Complete frameworks built on top of React

Scrim

REACT IS EXTREMELY POPULAR

Based on components

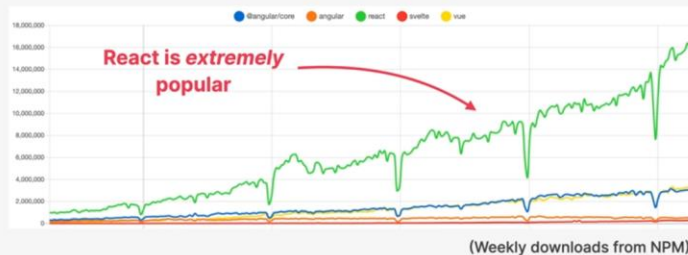
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✓ Many large companies have adopted React



✓ Huge job market with high demand for React developers 🤖

✓ Large and vibrant React developer community

✓ Gigantic third-party library ecosystem

Scrim

REACT WAS CREATED BY FACEBOOK

Based on components

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JavaScript library

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👉 React was created in **2011** by Jordan Walke, an engineer working at Facebook at the time

👉 React was open-sourced in **2013**, and has since then completely transformed front-end web development

facebook

Meta