

React Intro



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Applied Mathematics Degree

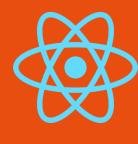
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Partilha



https://github.com/JoaoGoncalves/flag-react-set https://dontpad.com/flag-react

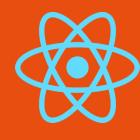


React - Introdução

João Gonçalves



Requisitos



Confortáveis com HTML5

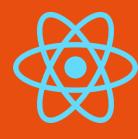
Confortáveis com Javascript (intro)

Bons **ES6**, **ES7**, **ES8**, ...,**ES2022**, **ESNext**

Node.js, NPM, Git (opcional)



Preparação Ambiente de trabalho



Instalar Node.js e GIT

Abrir (instalar) Chrome, e extensões para React:

React Developer Tools & Redux developer tools

Escolher Editor de Código e instalar (VSCode)

VSCode, extensões:

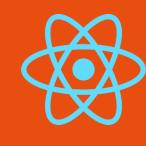
ES7+ React/Redux/React-Native/JS snippets, Simple React Snippets,

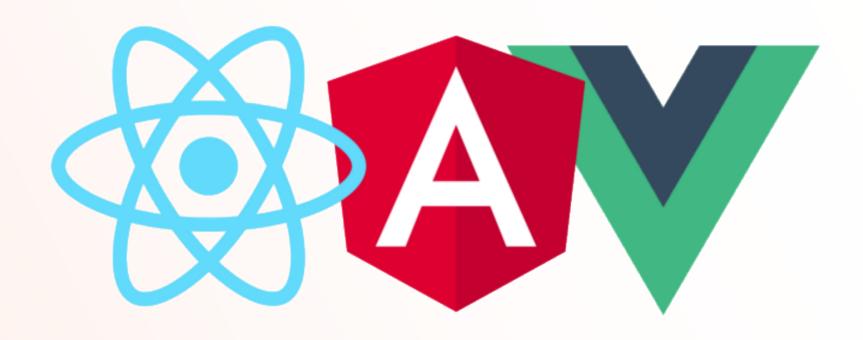
OU

React Extension Pack



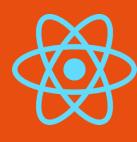
History...

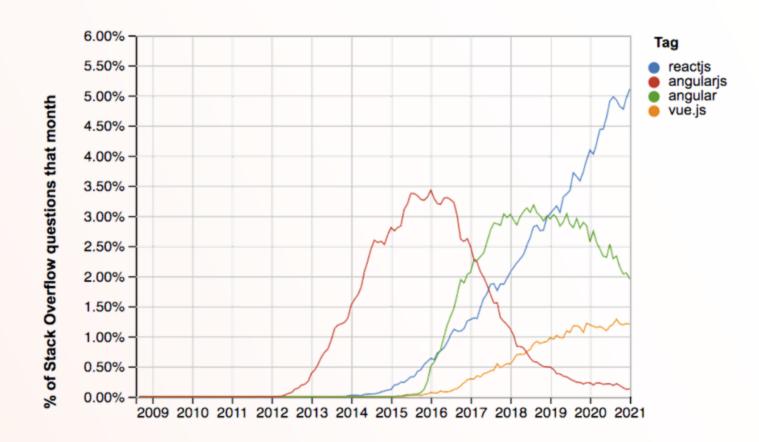






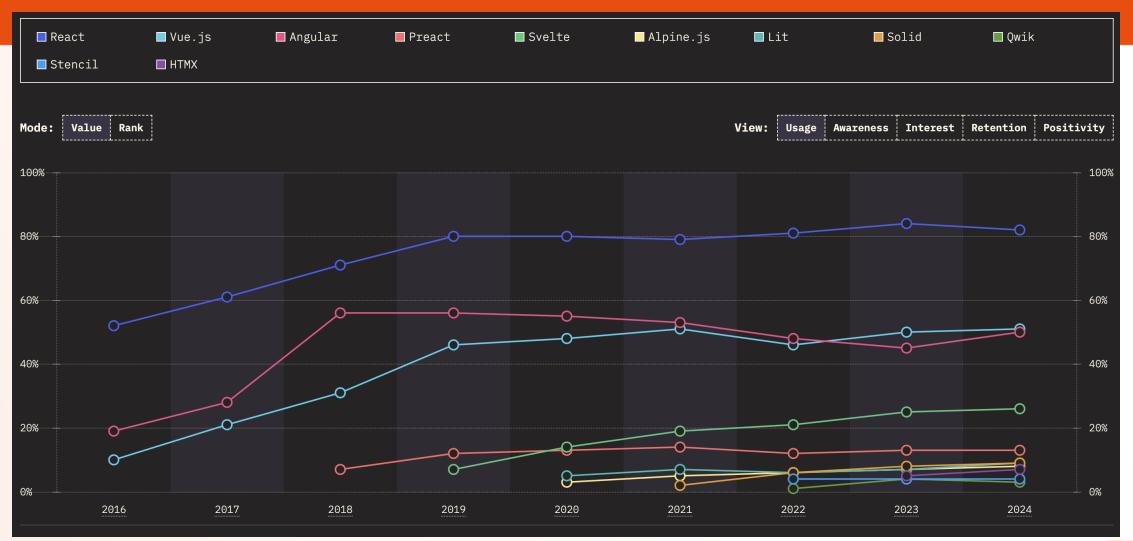
History ...





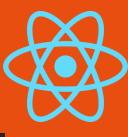


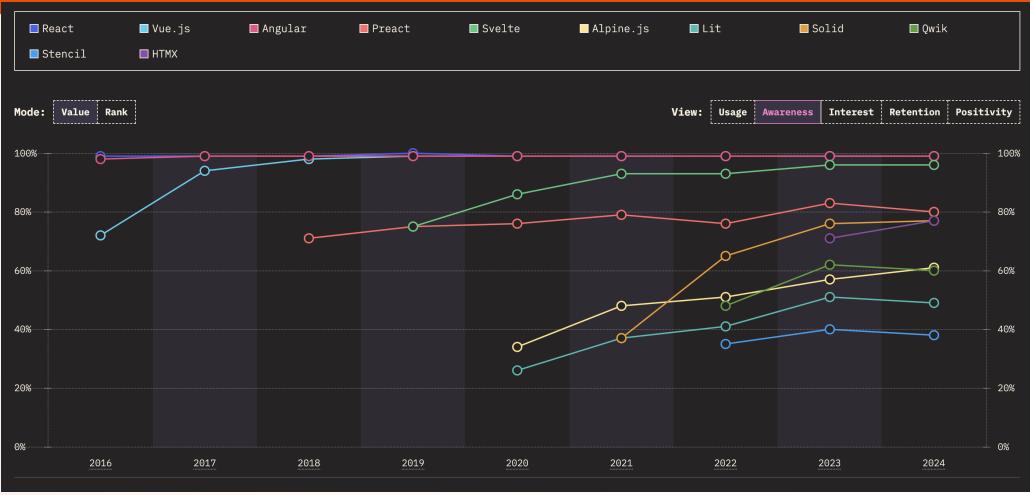
StateOfJs (usage)



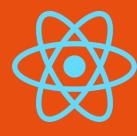


Interess (stateofjs)



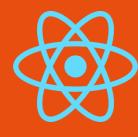






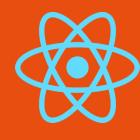
With React or Vue, you'll also need to select other products for routing, dependency injection, forms, bundling and deploying ...





The Angular framework is a platform that includes all you need for developing and deploying a Web app





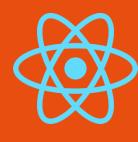
Open Source Javascript library since 2013

Developed by Facebook & Instagram Dev's

Intended to be the "V" in a MVC

Great for SPA (Single Page Aplication)



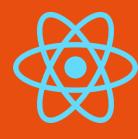


Virtual DOM

JSX

(sintaxe de XML para Javascript, opcional)





JS Objects are faster than DOM Objects

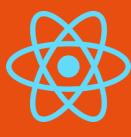
React Virtual DOM is a JS Object

React never read from the "real" DOM

React only writes in the "real" DOM if needed

Updates efficiently the DOM

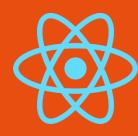


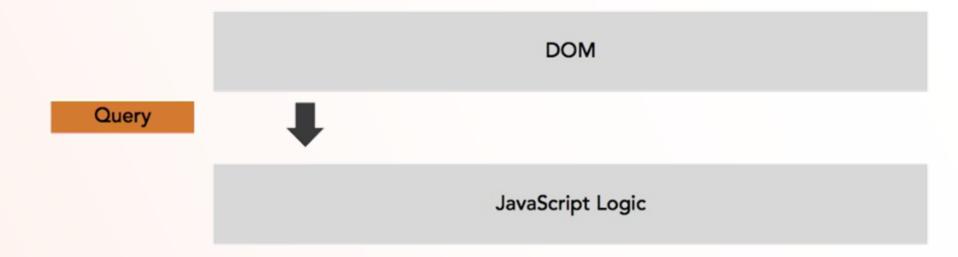


DOM

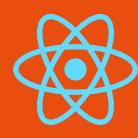
JavaScript Logic

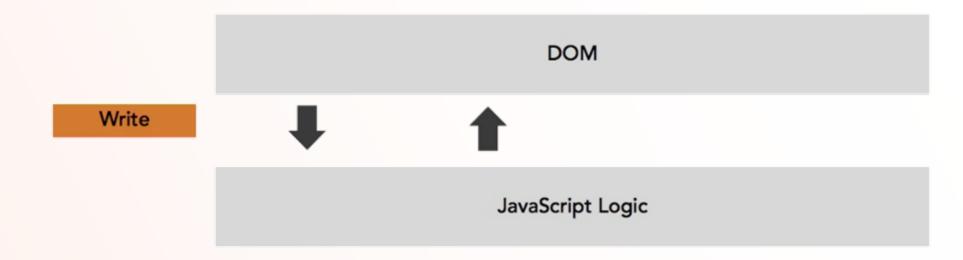




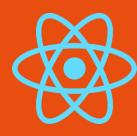


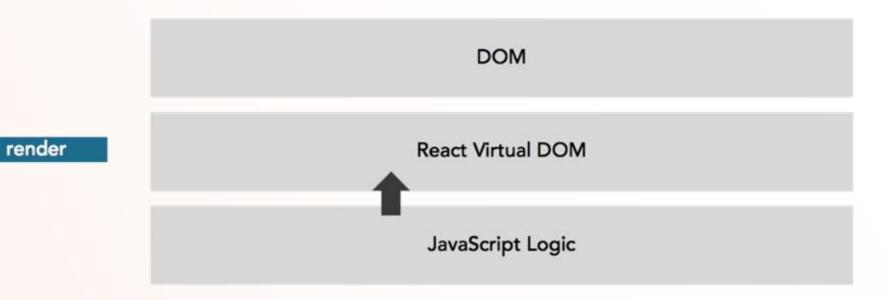




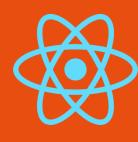


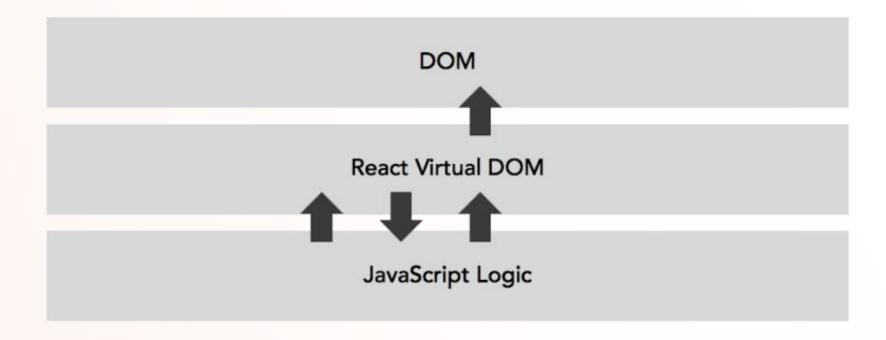




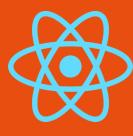






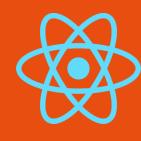






Exemplo....





Component Focused

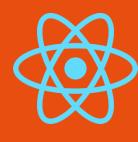
One-Way Data Flow

States

Props

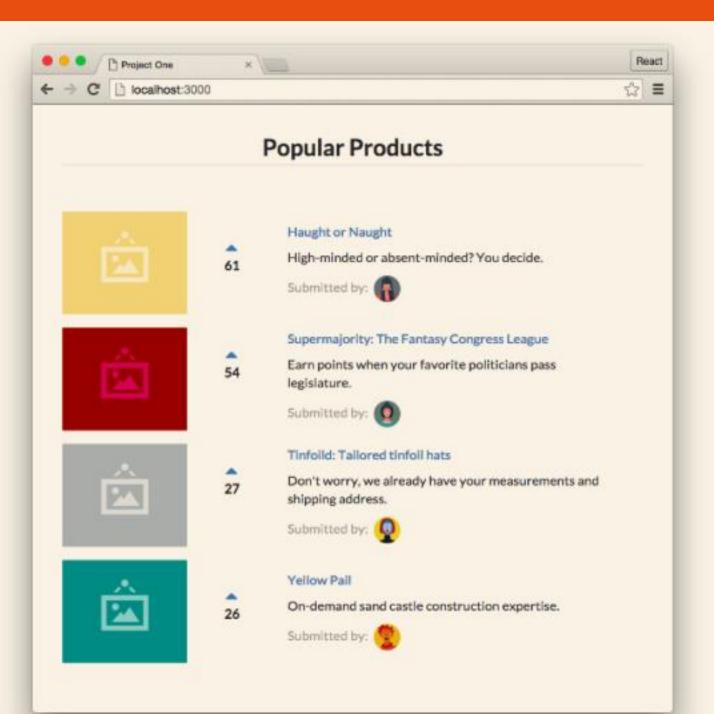


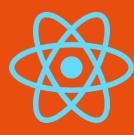
Exemplo



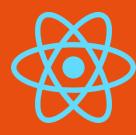
VOTING APP



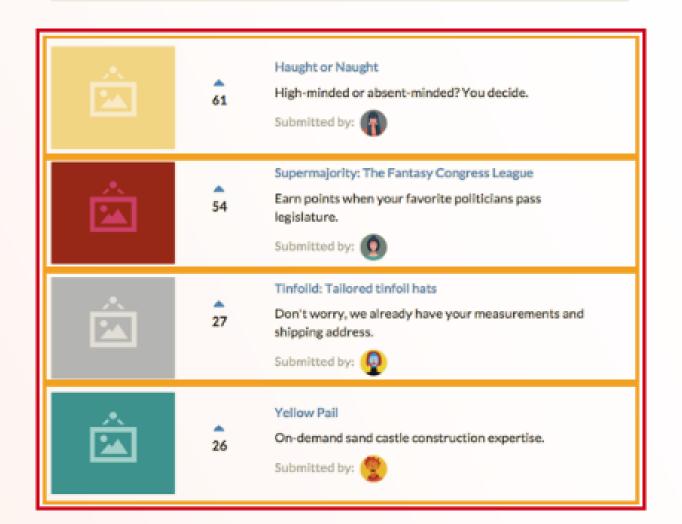






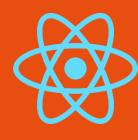


Popular Products



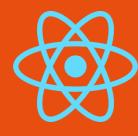


React Component





JS vs JSX

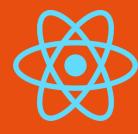


```
// JS Vanilla
export const Xpto = () =>
React.createElement('div', {className: 'ui items'}, 'Hello, friend! I am a basic React
domponent.'

export const Xpto1 = () =>
React.createElement('div', {className: 'ui items'},
    React.createElement('p', null, 'Hello, friend! I am a basic React component')
)
```

```
//JSX
export const Xpto2 = () => <h2>0la do
XPTO</h2>
```





Codigo...

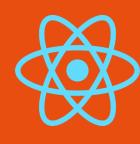
npm create vite

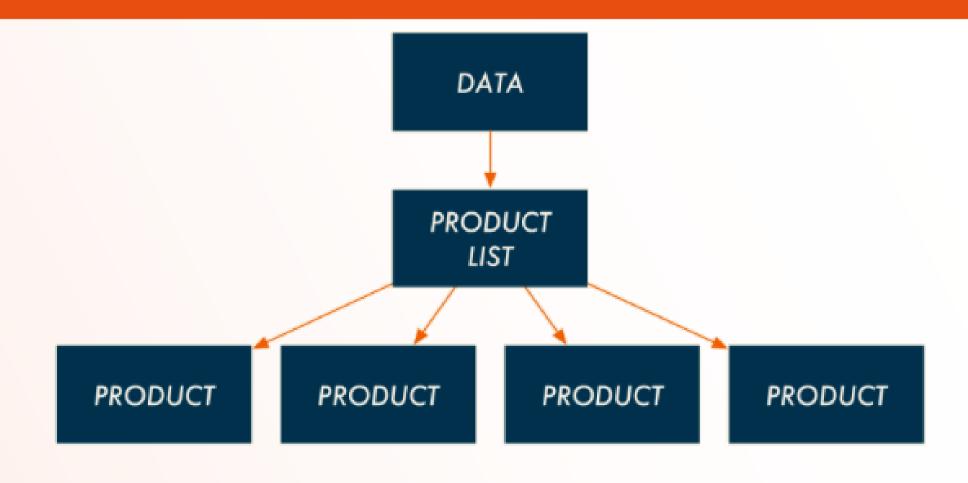
ou

yarn create vite



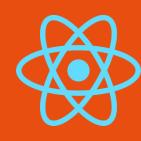
React - PROPS

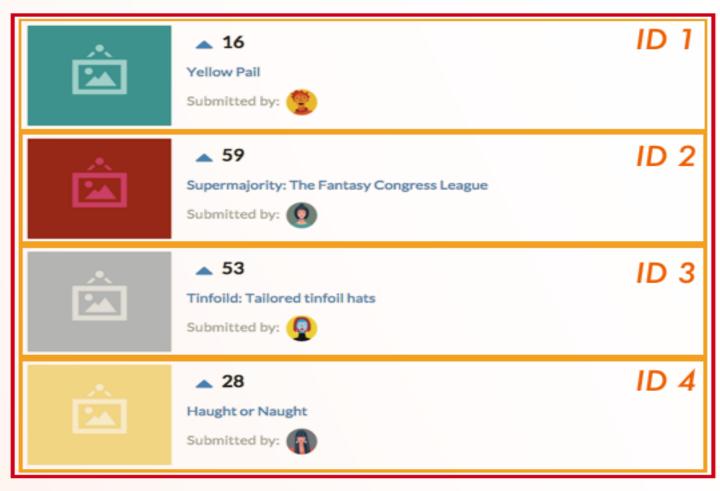


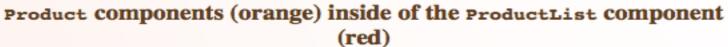




React – "key" atribute

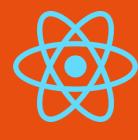








state

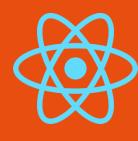


Whereas props are immutable and owned by a component's parent

state is owned by the component.



state



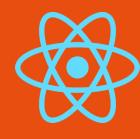
when the state or props

of a component update,

the component will re-render itself



Resumo



Organize your React App in Components

JSX inside **render** method

Data Flow from Parent to Child through props

Event flow through functions

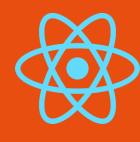
State vs Props

How to manipulate State

React LifeCycle Methods



Exercicios practicos



1

Acrescentar botao para retirar votos

2

Acrescentar 1 botao para alterar a visualização da ProductList alternadamente por ordem descendente e ascendente





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