

Introduction to React

Sunny Dhama

Prerequisites

Beginner Friendly

Good to have knowledge about

- Javascript - ES6
- Basic understanding of npm and how does it work
- Arrow functions (RFC), context of `this`, basic DOM methods (already covered in JS fundamentals class)

What is React?

- A frontend library, often known as framework which is used to build SPA apps and UI components
- It is the `V` in MVC architecture we follow here at Scaler for majority of our frontend
- Developed and maintained by facebook
- Fast performance

When should I use React or any other framework like angular, vuejs?

Why did developers create frontend frameworks?

- Creating reusable components (or markup). (Components API of react)
- Some kind of templating engine. (JSX in react)
- Synchronizing app state with view (React state and context api)
- Some routing engine (if building a single page app). (react-router in react)

Who's using React?

- Facebook
- Airbnb
- Instagram
- Zomato
- Swiggy
- Uber
- Skype
- Discord
- Tesla
- Scaler, parts of IB

And may more...

Component based architecture

Virtual DOM

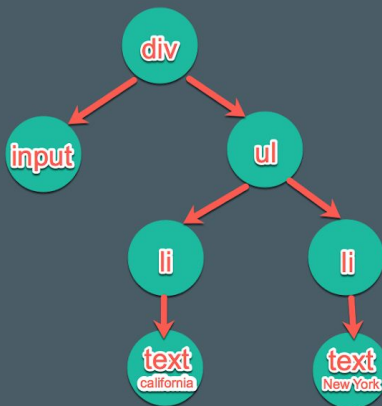
The App



Real DOM

```
▼<div>
  <input type="text" placeholder="Search">
  ▼<ul>
    <li>California</li>
    <li>New York</li>
  </ul>
</div>
```

DOM Tree



VDOM

```
{
  "nodeName": "div",
  "children": [
    {
      "nodeName": "input",
      "attributes": {
        "type": "text",
        "placeholder": "Search",
        "onChange": ""
      },
      "children": []
    },
    {
      "nodeName": "List",
      "attributes": {
        "items": [
          "California",
          "New York"
        ]
      },
      "children": []
    }
  ]
}
```