

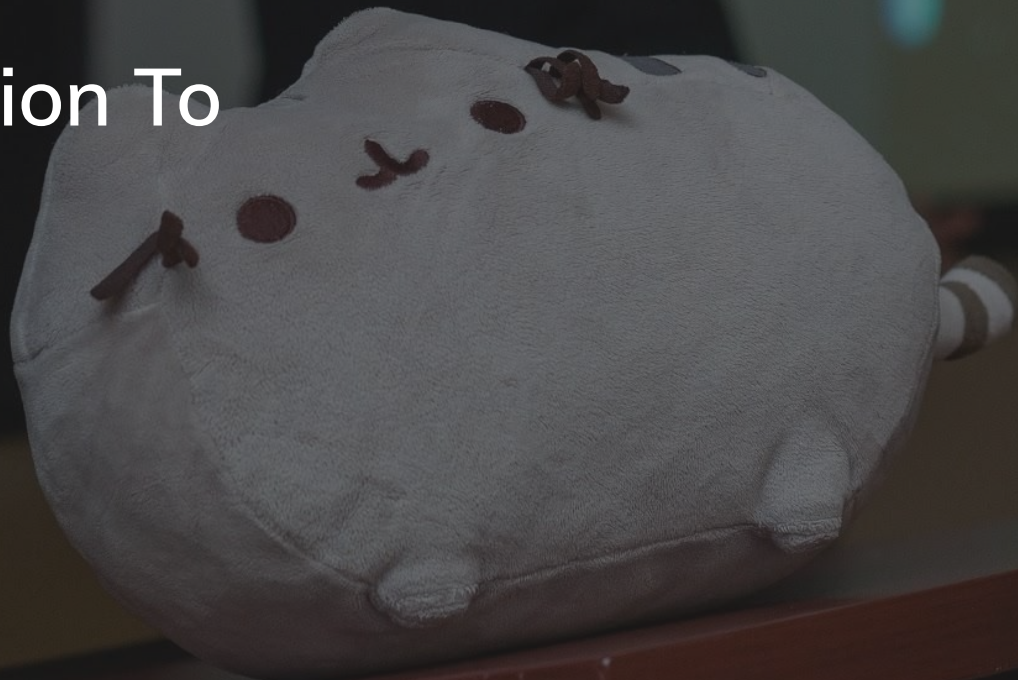


Computer Science
Enrichment Club

Introduction To React

Intro to Projects
Workshop

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Content Outline

What are we going to learn?

Introduction to Web Development

What is React?

States & Props

Components

Making your first React App

Next Steps





Intro to Web Development

How has front-end Web Development progressed?

Web Development started 1991 when HTML was first made. It wasn't until two years later until CSS was made

Layouts back then were basically tables (Don't do anymore pls)

Development used to be as simple as coding in a text editor and opening the HTML file on the browser

Nowadays, applications run on development servers, in NodeJS, for features such as hot-reloading, and pipelines for testing and deployments



What is React?

Why should I use it?

React is a front-end framework developed by Facebook which allows for an OOP like experience with reusable UI / Logic

Frameworks \neq speed. In fact, frameworks are slower than normal native HTML/CSS/JS

The benefit of frameworks is the speed in development

React abstracts details, so that you can focus on the task at hand instead of the details around it



States & Props

The data of React Components

State represents the current “state” of a component

Ex. If I flip a switch, I have changed the state of the lever from off to on

Props represents data coming to into a component

This is similar to dependency injection, or parameters for a function

The important difference between the two types of data is that state is controlled by the component itself, as props are uncontrolled and given to the component

Don't worry, This is one of the hardest things to get across the board to people new to frontend frameworks

Components

The building blocks of React

A component is an independent, reusable piece of UI and logic

That's a mouthful, let's break this definition into components ;)

Components are independent from one another

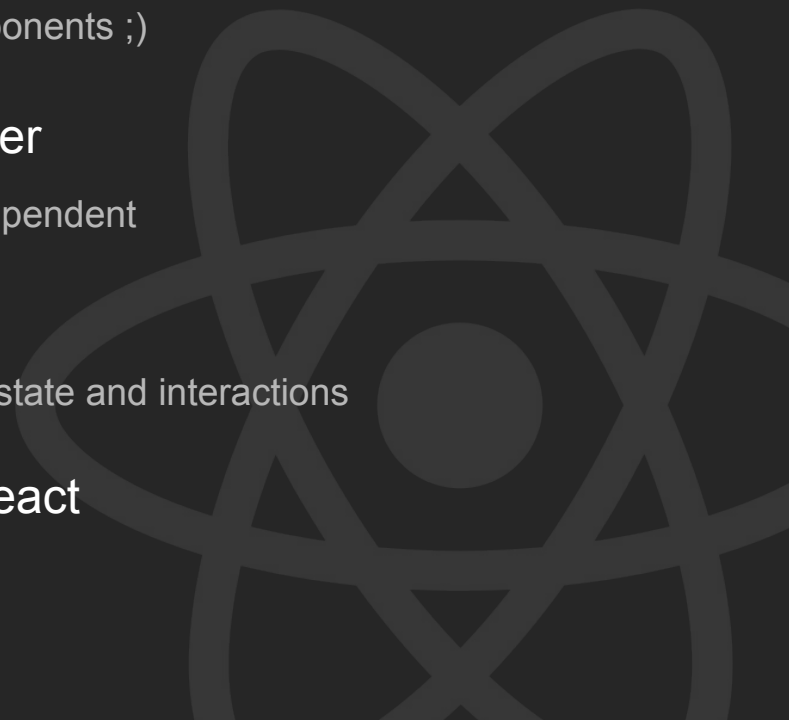
They share data through props, but their state is independent

Components are made up of UI and logic

The UI is how it renders on the page; The logic is its state and interactions

There are different types of Components in React

But that's an advanced topic for another day





Making your first React App

Hello World! owo

Download Nodejs and your favourite code editor

Personally a huge fan of VScode, an all rounder for any language

Run ``npm install -g create-react-app`` (Linux users add sudo)

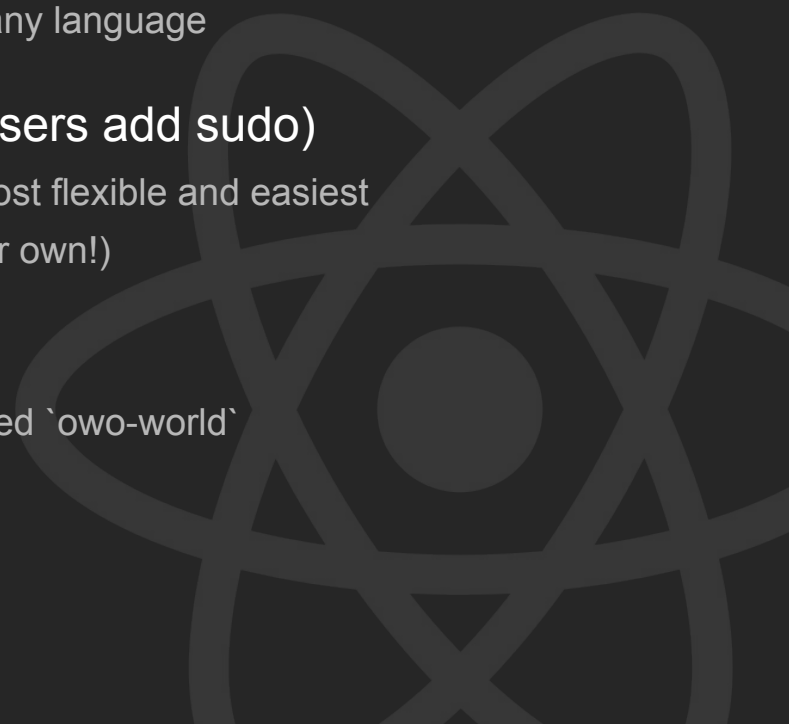
This is a boilerplate created by Facebook which is most flexible and easiest to use. (This is one of many, you can even make your own!)

Run ``create-react-app owo-world``

This would create your first React app in a folder called ``owo-world``

In that folder run ``npm start``

And your done!!!





Next Steps

How to be a React god

Practice! Practice! Practice!

Experience allows you to learn how to improve and tackle to different challenges

Know your JavaScript (Most notably ES6+, but know it all!)

Framework != language, Employers expect you to know and be proficient in JavaScript

Keep up to date with new technologies

Web development changes rapidly and it's easy to fall behind and end up "obsolete"

