

# Intro To React

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## Introduction

### Introduce myself

talk about the projects I work on and give a quick overview of software development

See <https://webadmin.qa.subaru.com/hopeworks/SoftwareDevelopment/SoftwareDevelopment.pdf>

### Have class introduce themselves

- What's your name?
- What kind of career are you interested in and why? if you had to do something 10 hours a day, 5 days a week what would it be ? and why !
- How do you see using technology in your chosen career ?
- What do you see yourself doing in 4 years? 8 years ? if you don't know start making a plan now !
- What excites or scares you about technology ?
- What would you like to get out of this 1 hour session? Instructors take notes of the answers!

For all classes see <https://webadmin.qa.subaru.com/hopeworks>

## Prerequisites for Learning React

- Working knowledge of HTML, CSS and JavaScript
- programming concepts like functions, objects, arrays, and to a lesser extent, classes. In JavaScript
- Basic understanding of how to use npm. (you'll need this to build the react app)
- Knowledge of another JavaScript Framework is very helpful but not needed (i.e. jQuery, Angular, Vue ...)
- Knowledge of a version control system (e.g. git, subversion, svn) is very helpful but not needed

## Overview of React

### What is React

[https://en.wikipedia.org/wiki/React\\_\(JavaScript\\_library\)](https://en.wikipedia.org/wiki/React_(JavaScript_library))

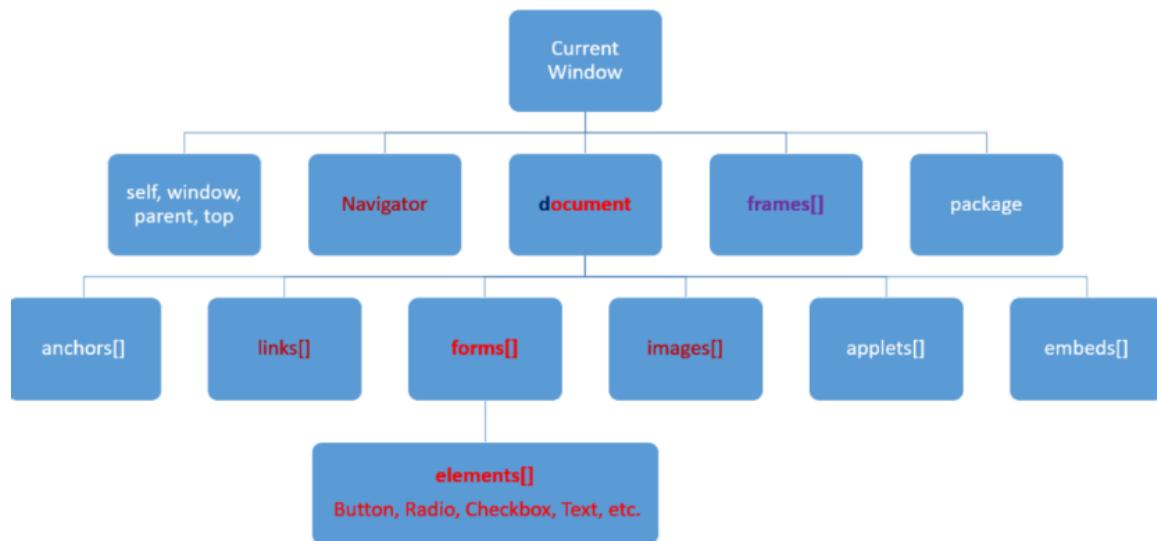
**React** (also known as **React.js** or **ReactJS**) is a [free and open-source front-end JavaScript library](#)<sup>[3]</sup> for building [user interfaces](#) based on UI components. It is maintained by [Meta](#) (formerly Facebook) and a community of individual developers and companies.<sup>[4][5][6]</sup> React can be used as a base in the development of [single-page](#), mobile, or server-rendered applications with frameworks like [Next.js](#). However, React is only concerned with state management and rendering that state to the [DOM](#), so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality

### Why React: Differences between JavaScript Frameworks

Description	jQuery	React	Angular	Vue
DOM	Direct	Virtual DOM	Direct	Virtual DOM
Single/Multiple page	Both	Both	Both	Both
Suitable for Large Scale Applications	Good	Better (i.e. UI components)	Good	Good
NPM support	some	Yes	Yes	Yes
Reusable UI components	No	Yes	Yes	Yes
Data Binding	Two Way	one-way from parent to child	Two Way	Two Way
First release Date	August 2006	May 2013	2.0 / 14 September 2016	February 2014
Last release	3.6.1 / (August 26, 2022)	18.2.0 / 14 June 2022	14.1.0 / 20 July 2022;	3.2.37 / 6 June 2022
Years Old	16	9	6	8

## Document Object Model (DOM)

# HTML DOM: Document Object Model



[https://developer.mozilla.org/en-US/docs/Web/API/Document\\_Object\\_Model/Introduction](https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model/Introduction)

DOM visualizer

Shows nice graph

<http://bioub.github.io/dom-visualizer/>

Paste some html in there to see DOM and HTML look(can use sample html in link above or [here](#))

<http://software.hixie.ch/utilities/js/live-dom-viewer/?%3C!DOCTYPE%20html%3E%0A...>

For all classes see <https://webadmin.qa.subaru.com/hopeworks>

## Exercises

### Exercise – Hello World

#### Objective

to write your first React program that says “Hello World”.

#### Requirements

- create a simple react app that's says “Hello world” For instructions [click here](#) Note: click on “Try it on CodePen”

For anything more than trying out snippets of code you need to build and run React in an IDE or CLI (i.e. command line interface). Here's the instructions for building/running it on the command line

<https://www.geeksforgeeks.org/build-a-basic-react-app-that-display-hello-world/>

### Exercise – How to Create a Profile Card UI Component

#### Objective

Create a Profile Card UI component. We won't go into details on how to create the HTML/CSS for these changes but you can learn more about this [in “Creating profiles with HTML and CSS By” class with Da'Shek Boone](#) and it will also help you in the [“Javascript, CSS, and Taking Control of your Code” class By Saul Solorzano](#)

#### Requirements

Here's the HTML/CSS design someone gave you

[https://www.w3schools.com/howto/tryit.asp?filename=tryhow\\_css\\_profile\\_card](https://www.w3schools.com/howto/tryit.asp?filename=tryhow_css_profile_card)

They want you to create a Profile Card UI component for everyone in their class/team. How would you do it. For more info on how to think in react see <https://reactjs.org/docs/thinking-in-react.html>

For all classes see <https://webadmin.qa.subaru.com/hopeworks>

## Exercises – Solutions

Exercise – Hello World

<https://codepen.io/gaearon/pen/MjrdWg?editors=1010>

Exercise – How to Create a Profile Card UI Component

<https://codepen.io/joseph-a-rinaldi-gmail-com/pen/dyevyNX>

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