Algorithms and Programming IV
Web Application Development: JS Frameworks (22-3)

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**JavaScript Frameworks**

Different needs produce different frameworks

- React ([https://reactjs.org/](https://reactjs.org/))
- Angular ([https://angular.io/](https://angular.io/))
- vue.js ([https://vuejs.org/](https://vuejs.org/))

There is no such thing as the “best JavaScript framework”

- For any given project, decide on the support you need
- Evaluate frameworks for the support they provide (Modularity, Reusability, Platforms)
- Evaluate for *functional requirements* (“is there a collapse/expand folder view?”)
- Evaluate for *non-functional requirements* (“is the framework openly licensed”)
jQuery basics

jQuery is a JavaScript Library following the mantra: *Find stuff and do stuff with it!*

It focuses on simplicity.

URL: [http://jquery.com](http://jquery.com)

Elements in the document are not found with

```
document.getElementById() or document.getElementById()  
```

But with

```
$('p') or $('id')  
```

jQuery uses CSS Selectors to find elements and returns them as an array of elements.
Angular

- Frontend-Web Application Framework
- TypeScript (~strictly typed JavaScript)
- It is efficient and sophisticated for single-page apps
- Advanced Architecture

(https://angular.io/guide/architecture)
React

- Frontend-Web Application Framework
- Everything is JavaScript
- Advanced Architecture (Components)

```javascript
class HelloMessage extends React.Component {
  render() {
    return (<div>
      Hello {this.props.name}
    </div>);
  }
}

ReactDOM.render(<HelloMessage name="Taylor" />,
    document.getElementById('hello-example'));`