Algorithms and Programming IV
Web Application Development: JS Frameworks (23-3)

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JavaScript Frameworks

Different needs produce different frameworks

• jQuery (http://jquery.com/)
• React (https://reactjs.org/)
• Angular (https://angular.io/)
• vue.js (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.getElementByIdByTag()`

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')
);
```