

# Intro to Application Development with React.js

## Training Outline

### Day One: React

#### ○ Introduction

- React
- What's new in React 16?

#### ○ Setting up

- Node & npm
- Webpack
- Babel
- Create React App
- Hello React
- Package.json
- ES6 Quickly

#### ○ Components & JSX

- React Libraries
- Properties
- State

#### ○ React & the DOM

- Events
- Hands-on: Event Handling
- Attributes
- Hands-on: Attribute passing

#### ○ Deeper JSX

- Conditionals
- Comments
- Hands-on: Conditionals
- Element Factories
- Styling
- Hands-on: JSX & Styling

#### ○ Jest

- What is Jest?
- Installing Jest
- Installing React Test Utilities
- Writing Test
- Hands-on: Writing unit tests
- Simulating events
- Hands-on: Tests with events

#### ○ Forms

- Submission
- Validation
- Hands-on: Forms

#### ○ Building Apps with Components

- Defaults
- Property types
- Custom types
- Hands-on: built-in & custom types
- Composition
- State vs Props
- Data flow
- Component Lifecycle & Methods
- Hands-on: ToDo App

#### ○ Debugging

- Chrome Dev Tools
- React DevTool

#### ○ Summary

## Day Two: Routing & Redux

### ○ Routing

- React Router
- Home
- Handling parameters
- Setting links
- Hands-on: Adding Routes
- Decoupling
- Programmatic routes
- Hands-on: Programmatic routes
- History

### ○ Animation in React (DELETE)

- CSS Transitions
- Keyframe Animation
- CSSTransitionGroup
- Hands-on: Animation

### ○ AWS Static Site

- Simple Storage Service
- S3 Console
- CloudFront
- Route53

### ○ Redux

- The Three Principles
- Components vs Containers
- Actions
- Reducers
- Stores
- Hands-on: ToDo with Redux

### ○ React Everywhere (DELETE)

- Using Express
- Hands-on: Simple Express Server
- React on the server
- Hands-on: Server-side Rendering

### ○ React Best Practices

### ○ Summary