

Using React

Duration: 4 days (9 hours each day with working lunch)

React is a very powerful client side library to build interactive rich interface. It's key strength comes from the ability to manipulate the virtual DOM. There are some guidelines to effectively using React and, being a small focused library, we have to rely on related tools to build other key features a typical client side will require. This course will focus on bringing the developers up to speed on React and closely related tools, so they can get productive to develop highly interactive web front-end.

The course has a good balance of interactive lectures and hands-on exercises. The attendees are expected to pair-up and work on the lab exercises. The instructor will assist the attendees as they work on the labs. The objective of the course is for the attendees to gain an in depth practical knowledge of the concepts so they can put them to immediate use on their real projects.

The course content will be customized to meet your teams' specific needs. Please review this detailed outline and suggest changes (additions, deletions, modifications) as you feel fit.

Topics

Developing with React

- * Why React?
- * An overview of the environment
- * A quick short example
- * Exercises

Create React Components

- * Components
- * Virtual DOM
- * Creating state
- * Creating View and binding
- * Exercises

Diving into JSX

- * HTML vs. JSX
- * Tags and components
- * Creating custom JSX elements
- * Exercises

Working with States and events

- * Properties
- * Default properties and setting values
- * Dealing with state change

- * Event handling
- * Event pooling
- * Exercises

Components and LifeCycle

- * LifeCycle Methods
- * Properties
- * Working with Properties
- * Making use of lifecycle methods
- * Proper cleanup
- * Creating reusable components
- * Working with multiple components
- * Exercises

Creating Validators

- * Validating properties
- * Using simple validators
- * Creating validators
- * Exercises

State Management

- * Using Redux
- * Actions
- * Reducers
- * Working with stores
- * Passing stores
- * Exercises

Creating Applications

- * Options to interact with the server
- * Implementing interaction with server
- * Reading data
- * Posting data
- * Architecture considerations
- * Flux
- * Creating Powerful Applications
- * Views, actions, and creators
- * Exercises

Automated Testing

- * Creating Automated Tests
- * Testing components
- * Measuring Code Coverage
- * Exercises

About the Instructor

Dr. Venkat Subramaniam is an award-winning author, founder of Agile Developer, Inc., creator of agilelearner.com, and an instructional professor at the University of Houston.

He has trained and mentored thousands of software developers in the US, Canada, Europe, and Asia, and is a regularly-invited speaker at several international conferences. Venkat helps his clients effectively apply and succeed with sustainable agile practices on their software projects.

Venkat is a (co)author of multiple technical books, including the 2007 Jolt Productivity award winning book Practices of an Agile Developer. You can find a list of his books at agiledeveloper.com. You may read more about Venkat and Agile Developer, Inc. at <http://agiledeveloper.com>.

