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React JS online training | May 14 - 31 2018 | ITC Infotech

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demos	after end of may 30 session	20 hours ago
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server-blog	intermediate commit	6 days ago
server-products	intermediate commit	6 days ago
session-demos	after end of may 30 session	20 hours ago
.gitignore	intermediate commit	6 days ago
README.md	after end of may 30 session	20 hours ago
attendance-sheet.xlsx	after end of may 30 session	20 hours ago

README.md

react-itc-may-14-31-2018

React JS training material for training (online mode) at ITC Infotech (May 14 - 31 2018)

About React

React is a web front-end library used to create user interfaces, i.e. a view in MVC architecture. Originally created at Facebook, it is now a free and open-source framework maintained by Facebook, Instagram and some other individual developers and corporations. It is not a full-fledged Single Page Application (SPA) framework unlike Angular, and hence other libraries like React Router and Redux are required to build an SPA. Additionally, a module bundler like Webpack is usually used in a React application.

Redux is a state management library. It can be used with any framework or standalone but is popularly used in a React app. It manages the state of an application and helps then behave consistently across different platforms.

Pre-requisites

- Working knowledge of HTML, CSS
- Good knowledge of JavaScript including object-oriented JS features like object prototypes etc. ES2015 (ES6) knowledge is a plus but not necessary.
- Bootstrap knowledge is a plus, but not necessary

List of software to be installed before training starts

- Git CLI and a GitHub account
 - [Git CLI download](#)

- [GitHub link for account creation](#) The account username needs to be shared with the trainer - this is so that permissions can be given to access the training material.
- Node.js (which also installs npm tool)
 - [Node.js](#) The proxy server details may need to be configured to enable npm access the npm registry (this registry is required to download Node modules required to build Node applications - React is available as node modules and hence the requirement). To configure the proxy for npm these articles will be helpful.
 - <https://jjasonclark.com/how-to-setup-node-behind-web-proxy/>
 - <https://forum.freecodecamp.org/t/npm-behind-a-proxy-server/19386>
- VisualStudio Code (VSCode)
 - [Download VSCode](#) A modern IDE like VSCode is highly recommended. If you prefer using one of Atom, WebStorm, SublimeText, Brackets, Eclipse, Netbeans or Visual Studio – that is fine. It is available for Windows, Mac OSX and popular Linux distributions.
- Latest version of one of Chrome/Firefox (preferably Chrome). Internet Explorer is not acceptable.
 - [Chrome](#)
 - [Firefox](#)
- **IMPORTANT:** It would be great if you have as little restrictions (as permissible) on internet access during the session.

Training schedule

Topic: React JS

Dates: May 14 - 31, 2018

Time:

Weekdays: 7:00 - 8:30 PM

Weekends: 8:00 - 11:45 AM (15 minute break in between)

Next session: May 28, 2018 at 7:00 PM IST (session on May 27 stands cancelled)

How to join the meeting

The training session are recorded using Zoom (<https://zoom.us>). If you are using Zoom for the first time you will be prompted to download Zoom when you open the meeting link in the browser. Do so and follow the steps in the wizard.

Join from PC, Mac, Linux, iOS or Android: <https://zoom.us/j/863290374>

Video recordings

The videos recordings of the sessions are available at the following locations.

- [May 14, 2018](#)
- [May 16, 2018](#)
- [May 17, 2018](#)
- [May 19, 2018](#)
- [May 20, 2018](#)
- [May 22, 2018](#)
- [May 23, 2018](#)
- [May 24, 2018](#)
- [May 25, 2018](#)
- [May 26, 2018](#)
- [May 28, 2018](#)
- [May 29, 2018](#)

- [May 30, 2018](#)

How to run the server for blogs (Ajax example)

You need to run the server placed within server/ folder for the examples on Ajax.

- To run the server first go inside the server/ folder

```
$ cd server
```

- Next install all required node modules (server's dependencies). The dependencies for Node projects are given in package.json.

```
$ npm install
```

- To run the server

```
$ npm run json:server
```

- The server starts on the following URL

```
$ http://localhost:4201/
```

- You can access the data via various endpoints. For example, to retrieve the comments for the post with id = 1, we can hit the endpoint...

```
http://localhost:4201/posts/1/comments
```

Table of contents

- Pre-requisites
 - Basics of Babel and ES2015 (ES6) for React
 - The Single Page Application (SPA) architecture
- Introduction to React
 - Overview of React, Redux and React Router
 - Underlying concepts – Data-binding, virtual DOM, routing etc.
 - Getting started with React – including it in your application
 - Scaffolding a React application using boilerplate code
 - Understanding the Project Structure and build process
- Using JSX
 - What is JSX?
 - JSX for components
 - HTML attributes
 - Unescaping content
- Components
 - Creating Components
 - Taking inputs using props
 - Maintaining component state using state
 - Lifecycle methods
 - Composing components

- Routing
 - Introduction to React Router
 - Route configuration
 - Handling params and querystring
 - Using links to setup navigation
 - Handling redirects
 - Hooks in routing
- Redux
 - Three core Redux principles
 - Redux flow overview
 - Actions and Stores
 - Immutability
 - Reducers
 - Middleware in Redux and popular Redux middleware
 - Implementing custom middleware
 - React-Redux introduction
 - mapStateToProps and mapDispatchToProps
- Redux Flow
 - Actions
 - Reducers and root reducers
 - Instantiating store and provider
 - Action type constants
- Production Builds
 - Setting up the production Redux store
 - Webpack setup
 - HTML build setup
 - Dist server setup
- Appendix
 - The SystemJS Universal Module Loader
 - Brief introduction to Webpack
 - Async in Redux using Redux Saga
 - Async library options
 - Introduction to Redux Saga
 - Understanding yield
 - Redux Saga Effects and Interaction between Sagas

Contact details

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References

- [Exploring JS](#)
- [Official documentation for React](#)
- [React.js cheatsheet at devhints.io](#)

Extra references

- Working with the Babel CLI and using ES6 modules - Please install and use babel-preset-env instead of babel-preset-2015 mentioned in the links.
 - [Reference 1 - A blog article](#)
 - [Reference 2 - A YouTube video](#)
- [Bootstrap 3 Cheatsheet](#)
- [Chrome Developer Tools Documentation](#) - you will find more info on performance analysis, memory profiling etc.
- [What is a Callback?](#)
- [Event loop - Video 1](#)
- [Event loop - Video 2](#)
- [Promises in Depth](#)

Todos (for instructor)

- Error handling related specifics
- Performance and memory leaks related tips
- Integrating create-react-app into development flow (say Java-based)

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React JS Demos v1.0.0

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