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This course is part of the Full-Stack Web Development with React Specialization

# Front-End Web Development with React

★★★★★ 4.7 2,770 ratings | 🔍 96%

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## About this Course

341,767 recent views

This course explores Javascript based front-end application development, and in particular the React library (Currently Ver. 16.3). This course will use JavaScript ES6 for developing React application. You will also get an introduction to the use of Reactstrap for Bootstrap 4-based responsive UI design. You will be introduced to various aspects of React components. You will learn about React router and its use in developing single-page applications. You will also learn about designing controlled forms. You will be introduced to the Flux architecture and Redux. You will explore various aspects of Redux and use it to develop React-Redux powered applications. You will then learn to use Fetch for client-server communication and the use of REST API on the server side. A quick tour through React animation support and testing rounds off the course. You must have preferably completed the previous course in the specialization on Bootstrap 4, or have a working knowledge of Bootstrap 4 to be able to navigate this course. Also a good working knowledge of JavaScript, especially ES 5 is strongly recommended.

At the end of this course you will:

- Be familiar with client-side Javascript application development and the React library
- Be able to implement single Page applications in React
- Be able to use various React features including components and forms
- Be able to implement a functional front-end web application using React
- Be able to use Reactstrap for designing responsive React applications
- Be able to use Redux to design the architecture for a React-Redux application

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**Intermediate Level****Approx. 36 hours to complete****English**

Subtitles: Arabic, French, Portuguese (European), Italian, Vietnamese, German, Russian, English, Spanish

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The Specialization I took blew my mind. Each course was interesting, fun, and motivational, which encouraged me to continue learning.

— Lisa L.



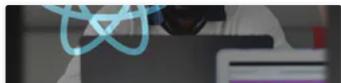
Having a like-minded community makes me feel like I'm part of something bigger. Before Coursera, I thought online learning was lonely and unengaging.

— Gabriela G.



With Coursera, I learned the fundamentals to transition to my current career.

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WEEK



10 hours to complete

1

### Introduction to React

In this module we get a quick introduction to front-end JavaScript frameworks and libraries, followed by an introduction to React. We will also learn about React components and JSX.



21 videos (Total 234 min), 23 readings, 2 quizzes [SEE LESS](#)

#### 21 videos

Welcome to Front-End Web Development with React 10m

How to Use the Learning Resources 10m

What is Full-Stack Web Development? 5m

Exercise (Video): Setting up Git 6m

Exercise (Video): Basic Git Commands 18m

Exercise (Video): Online Git Repositories 12m

Node.js and NPM 3m

Exercise (Video): Setting up Node.js and NPM 2m

Exercise (Video): Basics of Node.js and NPM 23m

Front-end JavaScript Frameworks and Libraries Overview 12m

Introduction to React 8m

Exercise (Video): Getting Started with React 9m

React App Overview 16m

Introduction to JSX 5m

Exercise (Video): Configuring your React Application 9m

React Components 3m

Exercise (Video): React Components Part 1 24m

React Components: State and Props 9m

Exercise (Video): React Components Part 2 22m

React Components: Lifecycle Methods Part 1 14m

Assignment 1 Requirements (Video): React Components 5m



23 readings

Welcome to Front-End Web Development with React: Additional Resources 10m

Full-Stack Web Development: The Big Picture: Objectives and Outcomes 10m

Full Stack Web Development: Additional Resources 10m

Setting up Your Development Environment: Git and Node: Objectives and Outcomes 10m

Setting up your Development Environment 10m

Exercise (Instructions): Setting up Git 10m

Exercise (Instructions): Basic Git Commands 10m

Exercise (Instructions): Online Git Repositories 10m

Exercise (Instructions): Setting up Node.js and NPM 10m

Exercise (Instructions): Basics of Node.js and NPM 10m

Setting up your Development Environment: Git and Node: Additional Resources 10m

Introduction to React: Objectives and Outcomes 10m

Exercise (Instructions): Getting Started with React 10m

Exercise (Instructions): Configuring your React Application 10m

Introduction to React: Additional Resources 10m

React Components: Objectives and Outcomes 10m

Exercise (Instructions): React Components Part 1 10m

Exercise (Instructions): React Components Part 2 10m

React Components: Additional Resources 10m

Assignment 1: React Components: Additional Resources 10m

Ideation: Objectives and Outcomes 10m

Ideation Report Template 10m

Ideation: Additional Resources 10m

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WEEK 2

 8 hours to complete

## React Router and Single Page Applications

In this week, you will learn about various component types. You will learn about React router and its use in designing single page applications. You will also learn about single page applications and use React Router to design single page applications.

 14 videos (Total 191 min), 16 readings, 2 quizzes [SEE LESS](#)

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 14 videos

Presentational and Container Components 6m

Exercise (Video): Presentational and Container Components 21m

React Components: Lifecycle Methods Part 2 8m

Functional Components 3m

Exercise (Video): Functional Components 14m

React Virtual DOM 6m

Exercise (Video): Header and Footer 17m

React Router 8m

Exercise (Video): React Router 36m

Single Page Applications 9m

Exercise (Video): Single Page Applications Part 1 23m

React Router: Parameters 6m

Exercise (Video): Single Page Applications Part 2 23m

Assignment 2: React Router and Single Page Applications 4m

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 **16 readings**

React Component Types: Objectives and Outcomes 10m

Exercise (Instructions): Presentational and Container Components 10m

Exercise (Instructions): Functional Components 10m

React Component Types: Additional Resources 10m

React Router: Objectives and Outcomes 10m

Exercise (Instructions): Header and Footer 10m

Exercise (Instructions): React Router 10m

React Router: Additional Resources 10m

Single Page Applications: Objectives and Outcomes 10m

Exercise (Instructions): Single Page Applications Part 1 10m

Exercise (Instructions): Single Page Applications Part 2 10m

Single Page Applications: Additional Resources 10m

Assignment 2: React Router and Single Page Applications: Additional Resources 10m

UI Design and Prototyping: Objectives and Outcomes 10m

UI Design and Prototyping Report Template 10m

UI Design and Prototyping: Additional Resources 10m

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WEEK

 7 hours to complete

3

## React Forms, Flow Architecture and Introduction to Redux

In this module you will be introduced to uncontrolled and controlled forms and briefly examine form validation in React applications. You will get an overview of the Flux architecture and introduced to Redux as a way of realizing the flux architecture

 13 videos (Total 188 min), 15 readings, 1 quiz [SEE LESS](#)

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 **13 videos**

Controlled Forms 5m

Exercise (Video): Controlled Forms 35m

Exercise (Video): Controlled Form Validation 23m

Uncontrolled Components 2m

Exercise (Video): Uncontrolled Forms 17m

The Model-View-Controller Framework 7m

The Flux Architecture 11m

Introduction to Redux 20m

Exercise (Video): Introduction to Redux 23m

React Redux Forms 4m

Exercise (Video): React Redux Form 13m

Exercise (Video): React Redux Form Validation 15m

Assignment 3: React Forms and Redux 5m

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 **15 readings**

Controlled Forms: Objectives and Oute 10m  
Exercise (Instructions): Controlled Forms 10m  
Exercise (Instructions): Controlled Form Validation 10m  
Controlled Forms: Additional Resources 10m  
Uncontrolled Forms: Objectives and Outcomes 10m  
Exercise (Instructions): Uncontrolled Forms 10m  
Uncontrolled Forms: Additional Resources 10m  
Introduction to Redux: Objectives and Outcomes 10m  
Exercise (Instructions): Introduction to Redux 10m  
Introduction to Redux: Additional Resources 10m  
React Redux Form: Objectives and Outcomes 10m  
Exercise (Instructions): React Redux Form 10m  
Exercise (Instructions): React Redux Form Validation 10m  
React Redux Form: Additional Resources 10m  
Assignment 3: React Forms and Redux: Additional Resources 10m

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WEEK



12 hours to complete

4

## More Redux and Client-Server Communication

In this module you will explore Redux further including Redux action, combining reducers, and Redux thunk, client-server communication using Fetch and the REST API. You will get a brief introduction to animation in React. You will also learn about testing, building and deploying React applications.



20 videos (Total 312 min), 26 readings, 2 quizzes [SEE LESS](#)

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20 videos

Redux Actions 8m

Exercise (Video): Combining Reducers 9m

Exercise (Video): Redux Actions 24m

Redux Thunk 10m

Exercise (Video): Redux Thunk 50m

Exercise (Video): React-Redux-Form Revisited 12m

Networking Essentials 17m

Brief Representational State Transfer (REST) 16m

Exercise (Video): Setting up a Server using json-server 6m

Promises 10m

Fetch 20m

Exercise (Video): Fetch from Server 33m

Exercise (Video): Fetch Handling Errors 15m

Exercise (Video): Fetch Post Comment 18m

React Animations 13m

Exercise (Video): React Animations 9m

Exercise (Video): React Animation Components 9m

Assignment 4: Redux, Client-Server Communication and Fetch 4m

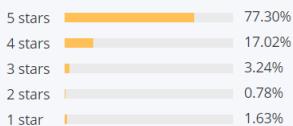
Introduction to Webpack 7m

 **26 readings**

- Redux Actions: Objectives and Outcomes 10m
- Exercise (Instructions): Combining Reducers 10m
- Exercise (Instructions): Redux Actions 10m
- Redux Actions: Additional Resources 10m
- Redux Thunk: Objectives and Outcomes 10m
- Exercise (Instructions): Redux Thunk 10m
- Exercise (Instructions): React-Redux-Form Revisited 10m
- Redux Thunk: Additional Resources 10m
- Client-Server Communication: Objectives and Outcomes 10m
- Exercise (Instructions): Setting up a Server using json-server 10m
- Client-Server Communication: Additional Resources 10m
- Fetch: Objectives and Outcomes 10m
- Exercise (Instructions): Fetch from Server 10m
- Exercise (Instructions): Fetch Handling Errors 10m
- Exercise (Instructions): Fetch Post Comment 10m
- Fetch: Additional Resources 10m
- React Animations: Objectives and Outcomes 10m
- Exercise (Instructions): React Animations 10m
- Exercise (Instructions): React Animation Components 10m
- React Animations: Additional Resources 10m
- Assignment 4: Redux, Client-Server Communication and Fetch: Additional Resources 10m
- Building and Deployment: Objectives and Outcomes 10m
- Exercise (Instructions): Building and Deploying the React Application 10m
- Building and Deployment: Additional Resources 10m
- Project Implementation: Objectives and Outcomes 10m
- Final Report Template 10m

## Reviews

**4.7**  794 reviews



### TOP REVIEWS FROM FRONT-END WEB DEVELOPMENT WITH REACT



by HB Jan 5, 2020

The course explains each and every topic step by step and in a very lucid manner. I highly recommend this course for anyone who wants to have a solid foundation in React. Hats Off to the Professor.



by NS Aug 7, 2020

One of the best course of React js and Redux on the web to build a strong foundation of the subject , one must take this course to build a strong base in the subject. Instructor is amazing !!



by AR Oct 5, 2020

Really loved this course!! As a beginner with React JS , this course helped me have a good understanding on the basics. I would definitely recommend this course to folks who are new to React .

by OA May 23, 2020

The course is great, wonderful explanation. But I feel it is high time now to update the course for inculcation of hooks, context api and stateful functional components and more newer things.

[View all reviews](#)

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