uCertify

Course Outline

ReactJS Foundations Course for Beginners

04 Aug 2025

1. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions
2. Expert Instructor-Led Training
3. ADA Compliant & JAWS Compatible Platform
4. State of the Art Educator Tools
5. Award Winning Learning Platform (LMS)
6. Chapter & Lessons

   Syllabus

   Chapter 1: Introduction

   Chapter 2: Hello, World!

   Chapter 3: The Foundation of React

   Chapter 4: JSX

   Chapter 5: All About Components

   Chapter 6: React DevTools

   Chapter 7: React Data Flow

   Chapter 8: Events

   Chapter 9: Forms

   Chapter 10: Refs

   Chapter 11: Styling React

   Chapter 12: Introducing Hooks

   Chapter 13: Routing

   Chapter 14: Error Boundaries

   Chapter 15: Deploying React

   Chapter 16: Initialize a React Project from Scratch

   Chapter 17: Fetching and Caching Data

   Chapter 18: Context API

   Chapter 19: React Portals

   Chapter 20: Accessibility in React

Chapter 21: Going Further

Videos and How To

1. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

2. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

3. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

4. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
    1. Best Postsecondary Learning Solution

- **2015**
    1. Best Education Solution
    2. Best Virtual Learning Solution
    3. Best Student Assessment Solution
    4. Best Postsecondary Learning Solution
    5. Best Career and Workforce Readiness Solution
    6. Best Instructional Solution in Other Curriculum Areas
    7. Best Corporate Learning/Workforce Development Solution

- **2016**
    1. Best Virtual Learning Solution
    2. Best Education Cloud-based Solution
    3. Best College and Career Readiness Solution
    4. Best Corporate / Workforce Learning Solution
    5. Best Postsecondary Learning Content Solution
    6. Best Postsecondary LMS or Learning Platform
    7. Best Learning Relationship Management Solution

- **2017**
    1. Best Overall Education Solution
    2. Best Student Assessment Solution

3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**
  1. Best Higher Education LMS or Learning Platform
  2. Best Instructional Solution in Other Curriculum Areas
  3. Best Learning Relationship Management Solution

- **2019**
  1. Best Virtual Learning Solution
  2. Best Content Authoring Development or Curation Solution
  3. Best Higher Education Learning Management Solution (LMS)

- **2020**
  1. Best College and Career Readiness Solution
  2. Best Cross-Curricular Solution
  3. Best Virtual Learning Solution

5. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Introduction

- WHY THIS COURSE?

- WHAT'S COVERED IN THIS COURSE?
- WHAT'S NOT COVERED?
- PREREQUISITES
- INSTALLING REQUIRED DEPENDENCIES

Chapter 2: Hello, World!

- REACT WITHOUT A BUILD TOOLCHAIN
- INTERACTIVE “HELLO, WORLD” WITH CREATE REACT APP AND JSX
- SUMMARY

Chapter 3: The Foundation of React

- WHAT'S IN A NAME?
- UI LAYER
- VIRTUAL DOM
- THE PHILOSOPHY OF REACT
- SUMMARY

Chapter 4: JSX

- JSX IS NOT HTML

- WHAT IS JSX?
- SYNTAX BASICS OF JSX
- SUMMARY

Chapter 5: All About Components

- WHAT IS A COMPONENT?
- COMPONENTS VS. ELEMENTS
- BUILT-IN COMPONENTS
- USER-DEFINED COMPONENTS
- TYPES OF COMPONENTS
- REACT COMPONENT CHILDREN
- THE COMPONENT LIFECYCLE
- RENDERING COMPONENTS
- COMPONENT TERMINOLOGY
- SUMMARY

Chapter 6: React DevTools

- INSTALLATION AND GETTING STARTED
- INSPECTING COMPONENTS

- EDITING COMPONENT DATA IN DEVTOOLS
- WORKING WITH ADDITIONAL DEVTOOLS FUNCTIONALITY
- PROFILING
- SUMMARY

Chapter 7: React Data Flow

- ONE-WAY DATA FLOW
- PROPS
- REACT STATE
- CONVERTING TO CLASS COMPONENTS
- SUMMARY

Chapter 8: Events

- HOW EVENTS WORK IN REACT
- WHAT IS SYNTHETICEVENT?
- USING EVENT LISTENER ATTRIBUTES
- THE EVENT OBJECT
- SUPPORTED EVENTS
- EVENT HANDLER FUNCTIONS

- SUMMARY

Chapter 9: Forms

- FORMS HAVE STATE
- CONTROLLED INPUTS VS. UNCONTROLLED INPUTS
- LIFTING UP INPUT STATE
- USING UNCONTROLLED INPUTS
- USING DIFFERENT FORM ELEMENTS
- PREVENTING DEFAULT ACTIONS
- SUMMARY

Chapter 10: Refs

- WHAT REFS ARE
- HOW TO CREATE A REF IN A CLASS COMPONENT
- HOW TO CREATE A REF IN A FUNCTION COMPONENT
- USING REFS
- CREATING A CALLBACK REF
- WHEN TO USE REFS
- WHEN NOT TO USE REFS

- EXAMPLES
- SUMMARY

Chapter 11: Styling React

- THE IMPORTANCE OF STYLES
- IMPORTING CSS INTO THE HTML FILE
- USING PLAIN OLD CSS IN COMPONENTS
- WRITING INLINE STYLES
- CSS MODULES
- CSS-IN-JS AND STYLED COMPONENTS
- SUMMARY

Chapter 12: Introducing Hooks

- WHAT ARE HOOKS?
- WHY WERE HOOKS INTRODUCED?
- RULES OF HOOKS
- THE BUILT-IN HOOKS
- WRITING CUSTOM HOOKS
- LABELING CUSTOM HOOKS WITH USEDEBUGVALUE

- FINDING AND USING CUSTOM HOOKS
- SUMMARY

Chapter 13: Routing

- WHAT IS ROUTING?
- HOW ROUTING WORKS IN REACT
- USING REACT ROUTER
- REACT ROUTER HOOKS
- SUMMARY

Chapter 14: Error Boundaries

- THE BEST LAID PLANS
- WHAT IS AN ERROR BOUNDARY?
- IMPLEMENTING AN ERROR BOUNDARY
- WHAT CAN'T AN ERROR BOUNDARY CATCH?
- SUMMARY

Chapter 15: Deploying React

- WHAT IS DEPLOYMENT?
- BUILDING AN APP

- HOW IS A DEPLOYED APP DIFFERENT?
- DEVELOPMENT MODE VS. PRODUCTION
- PUTTING IT ON THE WEB
- SUMMARY

Chapter 16: Initialize a React Project from Scratch

- BUILDING YOUR OWN TOOLCHAIN
- HOW WEBPACK WORKS
- AUTOMATING YOUR BUILD PROCESS
- STRUCTURING YOUR SOURCE DIRECTORY
- SUMMARY

Chapter 17: Fetching and Caching Data

- ASYNCHRONOUS CODE: IT'S ALL ABOUT TIMING
- JAVASCRIPT NEVER SLEEPS
- WHERE TO RUN ASYNC CODE IN REACT
- WAYS TO FETCH
- GETTING DATA WITH FETCH
- GETTING DATA WITH AXIOS

- USING WEB STORAGE
- SUMMARY

Chapter 18: Context API

- WHAT IS PROP DRILLING?
- HOW CONTEXT API SOLVES THE PROBLEM
- COMMON USE CASES FOR CONTEXT
- WHEN NOT TO USE CONTEXT
- COMPOSITION AS AN ALTERNATIVE TO CONTEXT
- EXAMPLE APP: USER PREFERENCES
- SUMMARY

Chapter 19: React Portals

- WHAT IS A PORTAL?
- COMMON USE CASES
- SUMMARY

Chapter 20: Accessibility in React

- WHY IS ACCESSIBILITY IMPORTANT?

- ACCESSIBILITY BASICS
- IMPLEMENTING ACCESSIBILITY IN REACT COMPONENTS
- SUMMARY

Chapter 21: Going Further

- TESTING
- SERVER-SIDE RENDERING
- PEOPLE TO FOLLOW
- USEFUL LINKS AND RESOURCES
- SUMMARY

You can’t stay away! Get

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