uCertify

Course Outline

React and React Native

16 May 2026

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: Why React?

   Chapter 3: Rendering with JSX

   Chapter 4: Understanding React Components and Hooks

   Chapter 5: Event Handling in the React Way

   Chapter 6: Crafting Reusable Components

   Chapter 7: Type-Checking and Validation with TypeScript

   Chapter 8: Handling Navigation with Routes

   Chapter 9: Code Splitting Using Lazy Components and Suspense

   Chapter 10: User Interface Framework Components

   Chapter 11: High-Performance State Updates

   Chapter 12: Fetching Data from a Server

   Chapter 13: State Management in React

   Chapter 14: Server-Side Rendering

   Chapter 15: Unit Testing in React

   Chapter 16: Why React Native?

   Chapter 17: React Native under the Hood

   Chapter 18: Kick-Starting React Native Projects

   Chapter 19: Building Responsive Layouts with Flexbox

   Chapter 20: Navigating Between Screens

Chapter 21: Rendering Item Lists

Chapter 22: Geolocation and Maps

Chapter 23: Collecting User Input

Chapter 24: Responding to User Gestures

Chapter 25: Showing Progress

Chapter 26: Displaying Modal Screens

Chapter 27: Using Animations

Chapter 28: Controlling Image Display

Chapter 29: Going Offline

Videos and How To

7. Live labs

Lab Tasks

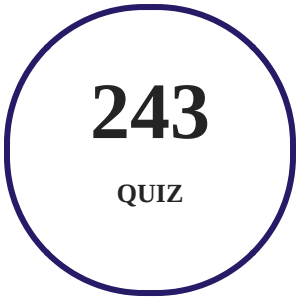
Here's what you get

1. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.

2. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



3. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

4. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.

5. 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.

6. 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.

7. 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.

8. 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

9. 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

- Who this course is for
- What this course covers
- To get the most out of this course

Chapter 2: Why React?

- What is React?
- What's new in React?
- Setting up a new React project
- Using web bundlers
- Summary

Chapter 3: Rendering with JSX

- Your first JSX content
- Rendering HTML
- Creating your own JSX elements
- Using JavaScript expressions
- Building fragments of JSX
- Summary

Chapter 4: Understanding React Components and Hooks

- Introduction to React components
- What are component properties?

- What is component state?
- React Hooks
- Performing initialization and cleanup actions
- Sharing data using context Hooks
- Memoization with Hooks
- Summary

Chapter 5: Event Handling in the React Way

- Declaring event handlers
- Declaring inline event handlers
- Binding handlers to elements
- Using synthetic event objects
- Understanding event pooling
- Summary

Chapter 6: Crafting Reusable Components

- Reusable HTML elements
- The diffculty with monolithic components

- Refactoring component structures
- Render props
- Rendering component trees
- Summary

Chapter 7: Type-Checking and Validation with TypeScript

- Knowing what to expect
- Introduction to TypeScript
- Using TypeScript in React
- Summary

Chapter 8: Handling Navigation with Routes

- Declaring routes
- Handling route parameters
- Using link components
- Summary

Chapter 9: Code Splitting Using Lazy Components and Suspense

- Using the lazy API

- Using the Suspense component
- Avoiding lazy components
- Exploring lazy pages and routes
- Summary

Chapter 10: User Interface Framework Components

- Layout and organization
- Using navigation components
- Collecting user input
- Working with styles and themes
- Summary

Chapter 11: High-Performance State Updates

- Batching state updates
- Prioritizing state updates
- Handling asynchronous state updates
- Summary

Chapter 12: Fetching Data from a Server

- Working with remote data
- Using the Fetch API
- Using Axios
- Using TanStack Query
- Using GraphQL
- Summary

Chapter 13: State Management in React

- What is a global state?
- React Context API and useReducer
- Redux
- MobX
- Summary

Chapter 14: Server-Side Rendering

- Working on the server
- Using Next.js
- React Server Components
- Summary

Chapter 15: Unit Testing in React

- Testing in general
- Unit testing
- Testing ReactJS
- Summary

Chapter 16: Why React Native?

- What is React Native?
- React and JSX are familiar
- The mobile browser experiences
- Android and iOS: different yet the same
- The case for mobile web apps
- Summary

Chapter 17: React Native under the Hood

- Exploring the React Native architecture
- React Native current architecture
- Explaining JS and Native modules

- Exploring React Native components and APIs
- Summary

Chapter 18: Kick-Starting React Native Projects

- Exploring React Native CLI tools
- Installing and using the Expo command-line tool
- Viewing your app on your phone
- Viewing your app on Expo Snack
- Summary

Chapter 19: Building Responsive Layouts with Flexbox

- Introducing Flexbox
- Introducing React Native styles
- Using the Styled Components library
- Building Flexbox layouts
- Summary

Chapter 20: Navigating Between Screens

- The basics of navigation

- Route parameters
- The navigation header
- Tab and drawer navigation
- File-based navigation
- Summary

Chapter 21: Rendering Item Lists

- Rendering data collections
- Sorting and filtering lists
- Fetching list data
- Lazy list loading
- Implementing pull-to-refresh
- Summary

Chapter 22: Geolocation and Maps

- Using the Geolocation API
- Rendering the map
- Annotating points of interest

- Summary

Chapter 23: Collecting User Input

- Collecting text input
- Selecting from a list of options
- Toggling between on and off
- Collecting date/time input
- Summary

Chapter 24: Responding to User Gestures

- Scrolling with your fingers
- Giving touch feedback
- Using Swipeable and Cancellable components
- Summary

Chapter 25: Showing Progress

- Understanding progress and usability
- Indicating progress
- Exploring navigation indicators

- Measuring progress
- Step progress
- Summary

Chapter 26: Displaying Modal Screens

- Terminology definitions
- Getting user confirmation
- Error confirmation
- Passive notifications
- Activity modals
- Summary

Chapter 27: Using Animations

- Using React Native Reanimated
- The Animated API
- Animating layout components
- Animating component styles
- Summary

Chapter 28: Controlling Image Display

- Loading images
- Resizing images
- Lazy image loading
- Rendering icons
- Summary

Chapter 29: Going Offline

- Detecting the state of the network
- Storing application data
- Synchronizing application data
- Summary

10. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device

- Break and Reset functionality
- No hardware costs

Lab Tasks

Rendering with JSX

- Building Fragments Using JSX

Understanding React Components and Hooks

- Working with Props and Hooks

Event Handling in the React Way

- Creating an Inline Event Handler

Code Splitting Using Lazy Components and Suspense

- Implementing Lazy Loading Using React Suspense with Spinner Fallback

User Interface Framework Components

- Working with Styles and Themes in Material UI

Fetching Data from a Server

- Fetching Data Using GraphQL with Apollo Client

State Management in React

- Managing the Global State in React

Kick-Starting React Native Projects

- Creating an App on Expo Snack

Building Responsive Layouts with Flexbox

- Creating a Flexbox Layout Using Expo

Navigating Between Screens

- Navigating Between the Screens Using Expo Router

Rendering Item Lists

- Implementing Lazy List Loading Using FlatList

Showing Progress

- Creating a Progress Bar Component

Displaying Modal Screens

- Implementing Error Confirmation Using Modals

Controlling Image Display

- Creating Icons Using Expo Vector Icons

Going Offline

- Storing the Application Data Offline

Here's what you get

15	15	37
LIVE LABS	VIDEO TUTORIALS	MINUTES

You can’t stay away! Get in touch with our team to

3187 Independence Drive
Livermore, CA 94551,
United States

+1-415-763-6300

support@ucertify.com

www.ucertify.com