

# Certified Software Developer Advance (REACT)



The React framework is widely used in front-end web development for building cutting-edge web applications.



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## ABOUT CERTIFICATION

It equips developers with a flexible, declarative, and efficient JavaScript library for constructing user interfaces, empowering them to create intricate UIs by combining small and independent code components known as "components."

GSDC Certifications offer software development professionals the opportunity to gain in-depth knowledge of writing high-quality code that is easily testable, deployable, maintainable, and usable across various applications. Possessing a GSDC certification demonstrates your proficiency in delivering complex software projects and helps you achieve your career objectives.

## OBJECTIVES

1. To know the working understanding of software development.
2. To know the tools and best practices in software development.
3. To enhance your programming and technical skills.
4. How to write error-free code.
5. How to test and debug software and web application.
6. Use of the latest tools and concepts in application development.

## Our Accreditation:



The Global Skill Development Council (GSDC) is the leading third-party, Vendor neutral, international credentialing and certification organization. The Global Skill Development Council (GSDC) is proud to be ANSI Accredited Member. The American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system.

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# COURSE SYLLABUS

## 1. React Overview

- Why React?
- What it is?
- Why it is useful?
- Angular, React Compared
- Web application architectures
- React Architecture

## 2. Package Management

- What is Node.js?
- What is npm?
- Using npm

## 3. Elements & JSX

- Replacing createElement
- Embedding Expressions
- Specifying Attributes
- Virtual DOM
- Components
- Creating an Element
- Create a Function Component
- Rendering a Component
- Creating a Class Component
- Composing & Reuse

## 4. Props & Events

- Read-only
- String Literals vs. Expressions
- Function vs. Class Components
- Listening/Subscribing/Wiring to a Event In Vanilla JavaScript
- In React: Function Component
- In React: Class Component

## 5. Binding

- Why is Binding Necessary?
- Class Method
- Arrow Function

## 6. Passing Parameters

- Using Arrow Functions
- Using Bind

## 7. Handling Events

- Using Arrow Functions
- Using Bind
- Synthetic Events

## 8.State

- Defining
- Using State Correctly
- Data Flows Down
- Converting a Function Component to a Class Component

## 9. Lifecycle

- What are Lifecycle Methods
- Understanding Mounting
- Using Lifecycle Methods

## 10. Component Architecture

- Reuse
- Component Communication

## 11. Forms

- Controlled Components
- Reuse of Change Logic across Multiple Inputs
- Handling Form Submission

## 12. HTTP

- Axios library
- Fetch API
- Using with React (HTTP GET)

## 13. Routing (React Router)

- Installation
- Basics
- Handling Not Found (404)
- Parameters (Url & Query)
- Nesting

## 14. Hooks

- Defined
- Why Hooks?
- No Breaking API Changes
- Hooks API
- useState
- useEffect
- Custom Hooks
- Rules of Hooks
- Customizing Environment Variables

## 15. Redux

- What is Redux?
- What is State?
- Benefits Checklist
- Principles of Redux
- Core Concepts (Store, State, Reducers, Actions, Action Creators)



# GSDC Technical Advisory Board :



The GSDC is the leading certification association which brings together innovative organizations and founding thought-leaders as Technical Advisors from over 40 countries to design curriculum on Blockchain, Devops, Six Sigma & Agile Certifications.

## Our Future Information

### **Target Audience**

GSDC Certification is for all those who want to prove they can apply their core Java developer skills into real-life projects.

Examples of typical job titles with 3-5 years of experience:

- Senior Software Developer
- Senior Software Engineer
- Senior Web Developer
- Senior Android Developer
- Senior Front-end Developer
- Senior Full-Stack Developer

**Find out more online at**

**[www.gsdccouncil.org](http://www.gsdccouncil.org)**

