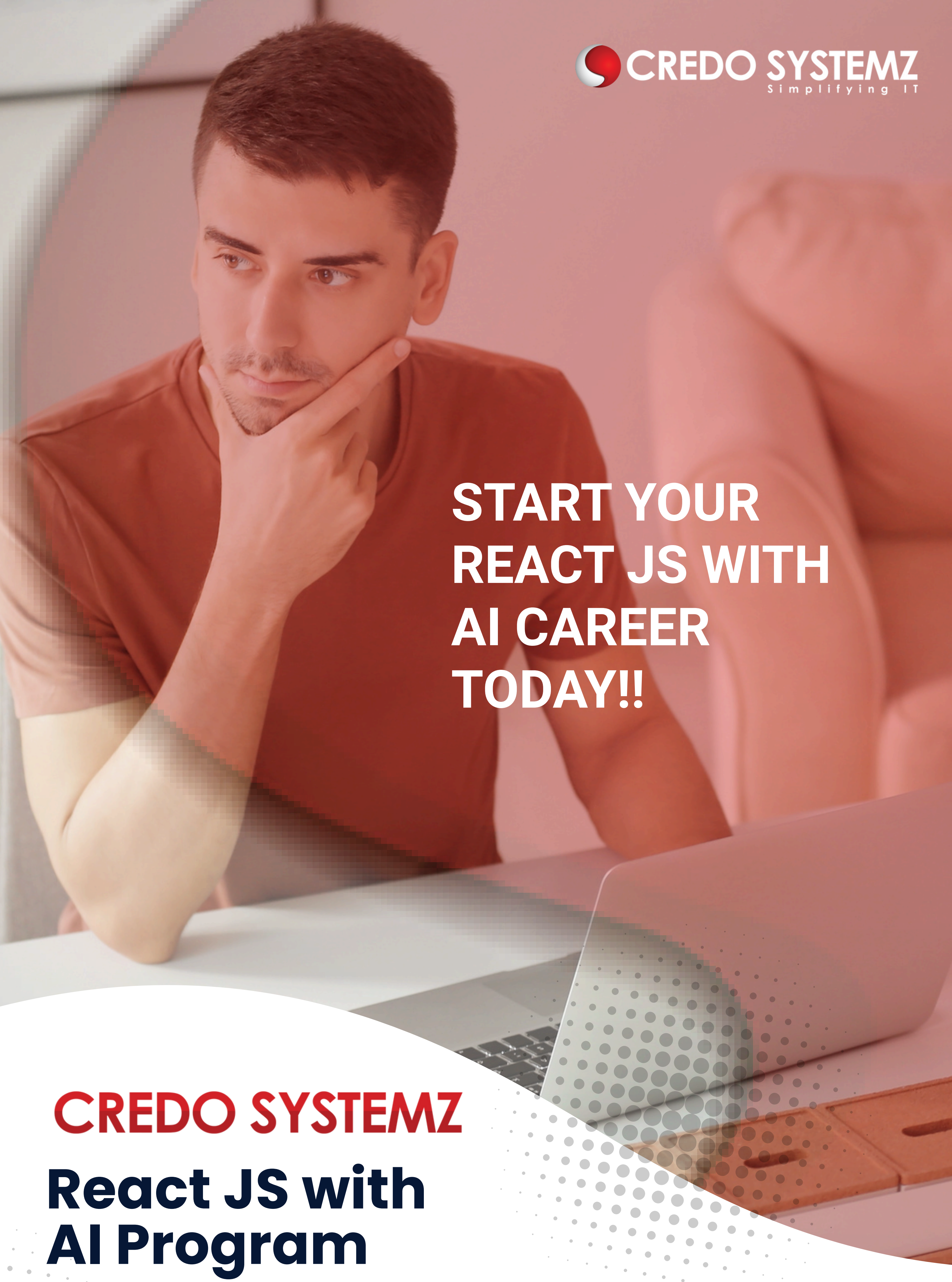


CREDO SYSTEMZ

Simplifying IT

START YOUR REACT JS WITH AI CAREER TODAY!!

# CREDO SYSTEMZ

# React JS with AI Program

# Capstone Projects :

Real Time Business Scenario using React Js

### Payment Portal

Build a Paymnet portal with multiple components and its interactions. Utlize its life hooks, various events and implement forms with validations.

### Realtime Ecommerce App

Create a new Ecommerce project with Authorization and Authentication. All forms with validations and send AJAX request to backend.

### Online Learning Platform

Develop a course portal with video lessons, quizzes, and progress tracking.

### HTTP App Project with various API

Connect your React JS App with various APIs like Weather, News, Jokes. Here you can experience how to resolve CORS error and Request, Response life cycle.

### Portfolio Website

Create a personal portfolio with interactive UI, projects showcase, and contact form.

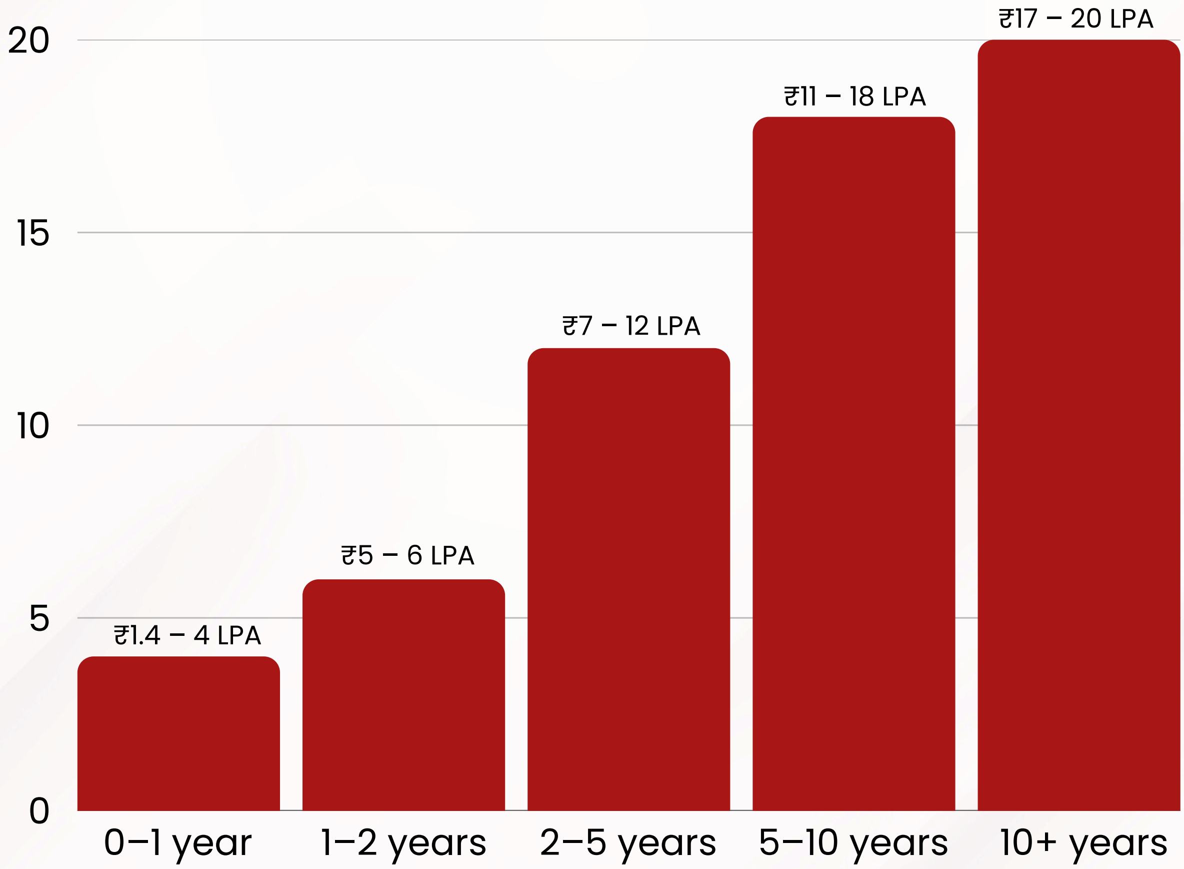
### Task Management App

Develop a to-do app with CRUD operations, drag-and-drop tasks, and progress tracking.

# React Js

## Opportunities & Demand

- React js Developer
- Frontend Engineer
- Frontend Developer
- React js Tech Lead
- UI Developer
- React js UI/UX Engineer



# REACT JS WITH AI COURSE SYLLABUS

**Duration : 40 hrs**

## HTML 5, CSS, BOOTSTRAP COURSE CONTENT

## Section 1 : React Js with AI

### Introduction

- What is Artificial Intelligence(AI)?
- Introduction to Artificial Intelligence
- Evolution of AI in the software industry.
- Key differences between AI, ML, and automation.
- How AI understands prompts and generates outputs in development.

### How Developers Use AI Tools Today

- Real-time code suggestions and auto-completion.
- Debugging and resolving errors.
- Auto-generating documentation and test cases.
- Enhancing productivity in frontend and backend development.
- Learning new technologies via AI-powered explanations.

### Overview of AI Tools (Copilot, ChatGPT, Codeium, Tabnine)

- GitHub Copilot – Code completion and generation inside VS Code.
- ChatGPT – Conversational AI for explaining concepts, solving bugs, and writing logic.
- Codeium – Lightweight open-source AI assistant for developers.
- Tabnine – Predictive code suggestions for multiple languages and editors.
- Amazon CodeWhisperer – AI coding tool optimized for cloud and AWS-based applications.
- Feature comparison and use cases.

### Installing GitHub Copilot in VS Code

- Prerequisites: GitHub account, VS Code setup.
- Installation steps: Search, install, and activate the Copilot extension.

- Verifying Copilot functionality within the editor.

### Activating Copilot with GitHub Account

- Connecting VS Code with GitHub credentials.
- Subscription setup (Free/Trial/Pro plans).
- Enabling Copilot across projects and environments.

## Section 2 : HTML 5

- Introduction - Web
- What are the different Types of Web Apps overview?
- Introduction to HTML
- Define HTML Structure
- Difference between Tag vs Element
- Difference between Semantic vs Non-semantic elements
- Difference between Block level elements vs Inline elements
- HTML Elements
- HTML Forms & its Attributes
- HTML Input Elements
- HTML Global Attributes
- HTML Element Specific Attributes

### AI in Action:

- Use ChatGPT to explain HTML tags, forms, and semantic elements.
- Generate HTML templates using GitHub Copilot or Codeium from simple prompts like “Create a contact form.”
- Auto-suggest attributes and fix structure issues using AI linters or extensions in VS Code.

## Section 3 : CSS

- What is CSS?
- Understanding the CSS Syntax.
- CSS Selectors.
- How To Add CSS in HTML.
- Cascading Order.

- CSS Colors.
- CSS Backgrounds.
- CSS Borders
- CSS Margins
- CSS Padding
- CSS Height and Width
- CSS Text, Fonts, Links, Tables
- CSS – Float and Clear
- The display: inline-block Value

## Section 3 : BOOTSTRAP

- WhatisBootstrap?
- GetStart with Bootstrap
- Containers
- GridSystem
- Structure of a Bootstrap Grid
- Bootstrap Colors
- Bootstrap Tables
- Bootstrap Jumbotron
- Bootstrap Alerts
- Bootstrap Buttons
- Bootstrap Navs
- DefineNavigation Bars
- Bootstrap Forms
- Bootstrap Modal

### AI in Action:

- Use Copilot to autocomplete style rules and responsive media queries.
- Generate custom CSS frameworks using AI prompt tools like Tabnine.
- Ask ChatGPT to refactor or explain complex CSS rules and layout bugs.
- Build Bootstrap grids or buttons by typing “Create 3-column responsive layout using Bootstrap.”

## Section 4 : Introduction– Javascript

- Introduction
- WhatisJavaScript?
- JavaScript Features
- JavaScript Libraries
- Understanding HTML, CSS, JavaScript
- JavaScript Version
- ES5
- ES6/ES2015
- ES7/ES2016
- ES8/ES2017
- DataTypes
- Number
- String
- Boolean
- Undefined
- Null
- Variable Mutation
- BasicOperator
- Operator Precedence
- Shorthand operator
- Problemstatement
- Decision making statement-if else
- ifelse– example
- Comparingtheproblem statement solution
- Switchstatement– example
- Booleanlogic
- Booleanlogic example
- Ternary operator
- Ternary operator example
- Tips
- Functions
- Function statement
- Function Statement Example

- WhatisArray
- RealworldProblem Ecommerce
- Realworldproblem transport
- SpaceandtheComplexity
- Built in function Complexity
- ExamplesofArray
- Objects, Whento use it
- Objects and Methods
- LoopsandIteration
- ForLoop
- Continue andBreak Statement

## Section 5 : ES6 JavaScript

- History of JavaScript
- Features
- let&constandits example
- ArrowFunctions
- Alternative
- TipsandArrowFunctions
- Exports and Imports
- Tipsfor exports and imports
- Classes
- Classes example
- Inheritance
- Spreadandrest Parameter
- Destructing

### AI in Action:

- Copilot can complete functions or suggest better loop structures.
- Use ChatGPT to explain callback vs promise vs async/await in your own words.
- Auto-generate ES6 classes, arrow functions,
- Destructuring examples using natural language.
- Debug JavaScript errors via ChatGpt Prompts
- Debug Logic mistakes via ChatGPT prompts.

## Section 6 :  Getting Started with React

- WhatisReactJS?
- Installation or Setup
- CreateReact App
- Advantages Of React JS
- WorkflowOfReact JS
- NodeSetup
- HowtouseNPManditspurpose
- ES6Introduction
- JSvsJSXvsTSvsTSX

## Section 7 : Components

- Creating Components
- BasicComponent
- Nesting Components
- Higherorder components

## Section 8 : OVERVIEW OF JSX

- Introduction of Virtual DOM.
- Difference between JS and JSX.
- WhyuseJSX?
- JSXAttributes
- JSXStyling

## Section 9 : Props in React

- Introduction
- Defaultprops
- PropTypes
- Passing downprops using spread operator
- Props.children and component composition
- Detecting the type of Children components
- PropsDrilling

## Section 10 : State in React

- BasicState
- CommonAntipattern
- setState()
- State, Events And Managed Controls

## Section 11 : React Component Lifecycle

- Componentwillmount
- ComponentUnMount
- ComponentUpdate
- Lifecycle method call in different states
- ReactComponentContainer

## Section 12 : Handling Events

- Eventhandling in React
- Binding event handlers
- Arrowfunctions vs. regular functions
- PrimaryEvents
- Sharing the events between components

## Section 13 : Communicate Between Components

- Childto Parent Components
- ParenttoChild Components
- Not-related Components

## Section 14 : Conditional Rendering

- Conditional rendering with if statements
- Conditional Rendering using logical && in JSX
- Conditional Rendering using ternary operator
- Preventing Component from Rendering

## Section 15 : Lists and Keys

- StepstoCreate and Traverse React JS Lists

- StepstoCreate and Traverse React JS Lists
- Rendering lists inside Components
- KeyinReactList

## Section 16 : ReactJS Keys

- WhatisakeyinReact?
- Assigning keys to the list
- Difference between keys and props in React

## Section 17 : React Hooks

- useState()
- useEffect()
- useContext()
- useRef()
- useReducer()
- CustomReactHooks
- useDispatch(), useSelector, useMemo, useLayoutEffect()

## Section 18 : Styling in React

- CSSinReact
- Different approaches for styling (CSS, CSS-in-JS, CSS Modules)
- Inline styles
- Styling Libraries
- Popular CSS frameworks (e.g., Bootstrap, Material-UI)

## Section 19 : Router

- Introduction to React Router
- Setting up React Router
- Creating routes
- Navigating with React Router
- UsingLink and NavLink
- NestedRoutes and Dynamic Routing
- Nestedroutes
- Passing parameters to routes
- QueryString, accesing current URL

## Section 20 : React JS forms

- ReactForms
- Lists of Form components
- Control Input elements.
- Controlled and Uncontrolled form components
- AddingFormsinReact
- Handling React Forms
- Submitting React Forms
- Multiple Input Fields
- ReactJSFormvalidations
- CustomValidations

## Section 21 : State Management with Redux

- Introduction to Redux
- Understanding the need for state management
- Basicconcepts: actions, reducers, store
- Setting Up Redux
- Installing Redux and setting up a store
- Creating actions and reducers
- Connecting React with Redux
- Usingconnect to connect components to the store
- Dispatching actions

## Section 22 : Asynchronous Programming and API Integration

- AJAXandFetchAPI
- MakingHTTPrequests in React
- Fetching data from an API
- Async/Await and Promises

## Section 23 : Handling errors in React application

- ErrorHandling and Debugging
- DebuggingReact apps
- Performance Optimization
- Memoization

- React.memoandPureComponent

## Section 24 : ReactJS Virtual DOM

- WhatisDOM?
- Disadvantages of real DOM
- Virtual DOM
- Howdoesvirtual DOMactually make things faster?
- Howvirtual DOMHelpsReact?
- Virtual DOMKeyConcepts
- Differences between Virtual DOM and Real DOM

## Section 25: Unit Testing Overview

## Section 26: Lazy Loading

## Section 27: Code Spliting

## Section 28: Server-Side Rendering

## Section 29: Micro FrontEnd Overview

## Section 30: Deploying a React application

## Section 31: React JS – With AI Integration

### Use Copilot to

- Scaffold React components with useState, useEffect, or useReducer
- Write router configs, validation logic, and Redux action templates

### ChatGPT:

- Explain prop drilling or React context
- Help fix state update bugs
- Create optimized component hierarchies
- Generate form validation rules, lifecycles, hooks using AI prompts.
- Use Codeium or Tabnine to auto-suggest JSX templates and inline styles.

# SKILLS AND TOOLS

## Skills Covered

HTML

CSS

Bootstrap

Javascript

React

State Management

Routing

Event Handling

Application Testing

## Tools Covered

VS Code

GraphQL

Server

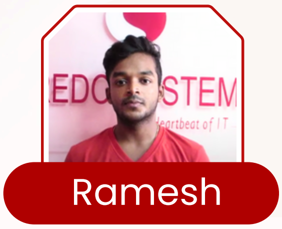
NGnix

Redux Tools

Git

React

# PLACEMENT SUCCESS STORIES

| | Designation | Company | Package |
|---|---|---|---|
| Shashank | React js UI/UX Engineer | SIMSON Softwares | 9.8 LPA |
| Anuradha | React js Developer | ECS Cloud Infotech | 8.5 LPA |
| Sandhya | Frontend Developer | COLAN INFOTECH | 3.8 LPA |
|  Ramesh | UI Developer | Beelogical The Magic of Logic | 6.6 LPA |
| Joesph | Frontend Engineer | Shellinfo Global | 8.0 LPA |
| Mohammed | React js Tech Lead | SUNSMART | 11.0 LPA |

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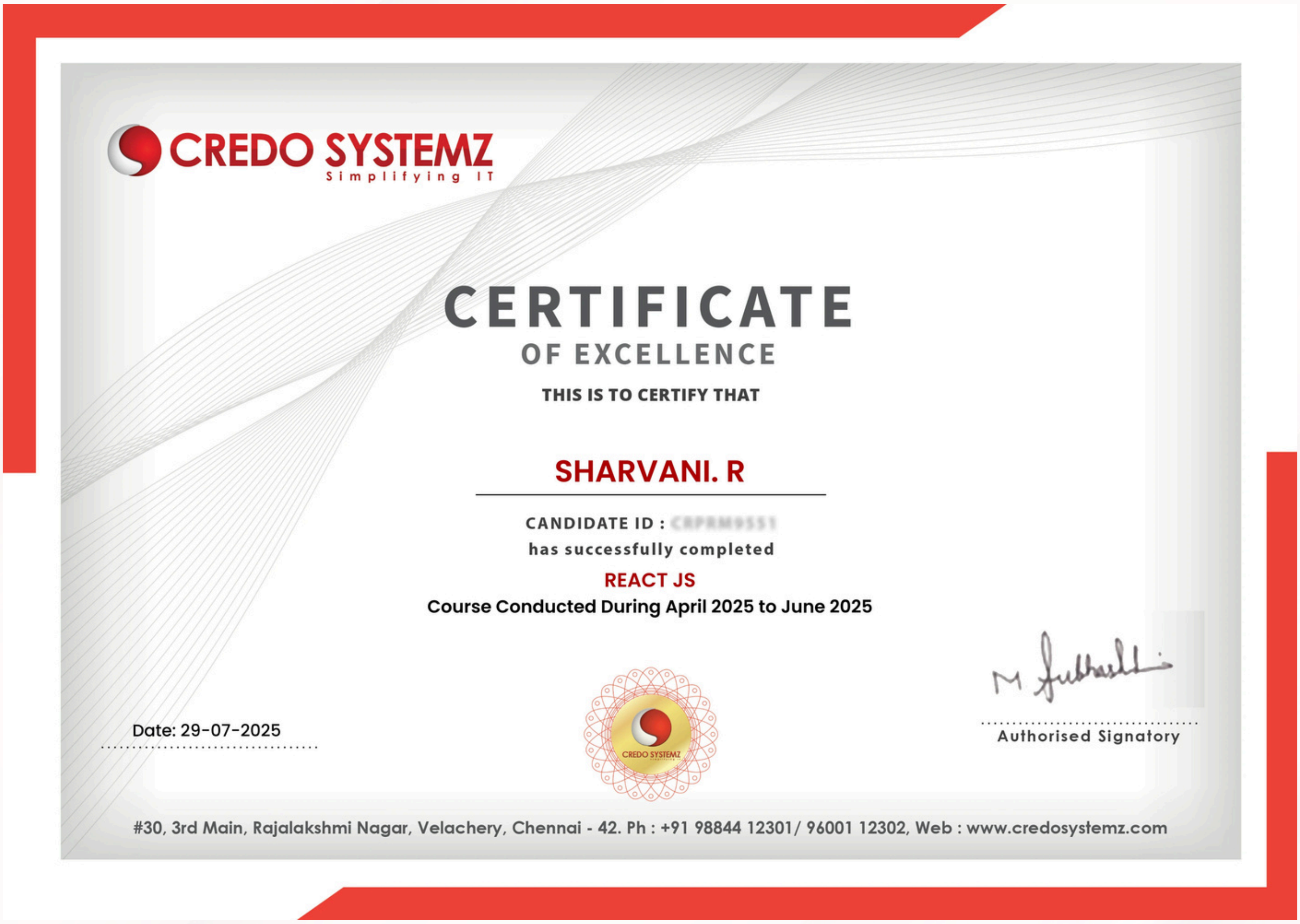
COGMED

ALTOS Technologies

# Earn your React Js Course Completion Certificate

Credo Systemz's certificate is highly recognized by 30K Global companies around the world.



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CERTIFICATE
OF EXCELLENCE

THIS IS TO CERTIFY THAT

SHARVANI. R

CANDIDATE ID : [redacted]
has successfully completed
REACT JS
Course Conducted During April 2025 to June 2025

Date: 29-07-2025

Authorised Signatory

#30, 3rd Main, Rajalakshmi Nagar, Velachery, Chennai - 42. Ph : +91 98844 12301/ 96001 12302, Web : www.credosystemz.com

# WHAT OUR TRAINEE SAYS?

### Santhosh

**4.7** ★★★★★

I'm very happy with the React JS course. The trainer was supportive and explained concepts clearly. Practical sessions and projects made me confident in building applications. Thanks to Credo Systemz!

### Fathima Banu

**4.2** ★★★★★

React JS training at Credo Systemz was fantastic. I learned components, props, hooks, and state management in detail. The trainer's guidance was excellent. One of the best institutes for React.

### Prakash Jain

**5.0** ★★★★★

Credo Systemz provided an excellent React JS training. From basics to advanced topics like Redux, everything was explained clearly. Hands-on practice and tasks made concepts strong. Very useful training experience.

### Saindhavi

**4.9** ★★★★★

Best React JS course at Credo Systemz! Sessions were interactive, and the trainer guided us with projects. I gained confidence in building real-time applications. Perfect institute for React and web development.

### Jesuraj. F

**4.0** ★★★★

React JS training at Credo Systemz was excellent. The trainer was knowledgeable, and sessions were interactive. Hands-on tasks and real-world projects helped me understand frontend development better. Highly recommended for students.

### Anjali Ravi

**4.5** ★★★★★

I joined the React JS course at Credo Systemz. The trainer explained concepts step by step with real examples. Assignments and projects gave me strong coding confidence. Excellent institute for learning React.

# CHENNAI

## VELACHERY

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# OVERSEAS

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