CREDO SYSTEMZ
Simplifying IT

React JS CourseContent

SECTION 1: WHAT IS REACT JS?

➤ React JS Introduction
➤ Advantages of ReactJS
➤ Work flow of React JS
➤ Scope of React JS

SECTION 2: OVERVIEW OF JSX

➤ Introduction of Virtual DOM.
➤ Difference between JS and JSX.
➤ React Components overview
➤ Containers and components
➤ What is ChildComponents?
➤ What is Name spaced components?
➤ What are the JavaScript expressions available in JSX?

SECTION 3: REACT JS ENVIRONMENT SETUPS

➤ Node setup
➤ How to use NPM?
➤ How to create package.json and purpose of it?
➤ ES6 Introduction and features.
➤ Webpack Overview
➤ Best IDE for React JS and How to write optimized code in React JS?
➤ React JS browser plugins overview.

Real-time Practicals
- NPM Installation by locally and Globally
- Create a Basic App with React JS and other Supported NPMs.

SECTION 4: A REAL-TIME APPLICATION BY USING REACT JS

- ➤ Create a React component with JSX template.
- ➤ How to create Nested Components?
- ➤ What is React JS render?
- ➤ React Props overview.
- ➤ Introduction of Props validation with data types.
- ➤ Flow of States, Initialize states and update states.

Real-time Practicals
- • Create a Small React Module
- • Use All the states in in the created Application.

SECTION 5: REACT JS FORMS AND UI

- ➤ Lists of Form components.
- ➤ Setup Controlled and Uncontrolled form components.
- ➤ Control Input elements.
- ➤ How to set default values on all formats of Input elements.
- ➤ React JS Form validations.
- ➤ How to write Styles?
- ➤ Animations overview

Real-time Practicals
- • Create a React Form.
- • Client-side form validation.
- • Applying form components.
- • Submit and Rest the form.

SECTION 6: REACT JS COMPONENT LIFE CYCLES OVERVIEW

- ➤ Initial Render
- ➤ Props Change
- ➤ Stage Change
- ➤ Component willMount
- ➤ Component didMount
- ➤ Component Unmount

Real-time Practicals
- Applying Different Lifecylces in the Application.
- When to choose Appropriate lifecycles.

SECTION 7: ROUTING IN REACT JS AND OTHER JS CONCEPTS

- ➢ Single Page Application Overview.
- ➢ How to configure React Router?
- ➢ History of Router
- ➢ How to Handle Conditional statement in JSX?
- ➢ IIFE in JSX for complex logic overview.

Real-time Practicals
- Create a Single Page Application.
- Applying Routing.
- Dynamically render the components based on the url.

SECTION 8: EVENT HANDLING IN JSX

- ➢ onBlur, onKeyUp, onChange and other useful primary events in React JS.
- ➢ How to Sharing events between the components?

Real-time Practicals
- Communicate Data between components.
- Applying all lists of events.

SECTION 9: HOW TO WRITE STYLES IN REACT JS?

- ➢ CSS and inline styles in React JS overview.
- ➢ Introduction to styled components

Real-time Practicals

- Styling the application using styled component
- How to use Animations in the Application.

SECTION 10: REACT ROUTER WITH NAVIGATION

- ➢ How to Load the router library?
- ➢ Configure the React Router?
- ➢ How to Passandreceiveparameters?
- ➢ Integration of React-cookie overview.

SECTION 11: FLUX OVERVIEW

- ➢ What is Flux Architecture?
- ➢ What are the Flux Components available?
- ➢ Stores.
- ➢ Dispatchers.
- ➢ View Controllers.
- ➢ Actions.
- ➢ Views.
- ➢ How Flux works?
- ➢ Flux and React works together.

SECTION 12: REDUX OVERVIEW

- ➢ Introduction to OneStore.
- ➢ Provider Component
- ➢ Actions.
- ➢ Reducers.
- ➢ sagas
- ➢ Dispatchers
- ➢ View Controllers
- ➢ Selector

Real-time Practicals

- Redux application Development with Real-time Project

SECTION 13: UNIT TESTING OVERVIEW

- ➢ What are the necessary Tools required for Unit Testing?
- ➢ React Unit Testingoverview
- ➢ Introduction to JEST.
- ➢ How to Test React Component?
- ➢ How to Test React Router?

SECTION 14: ADDITIONAL TOPICS

- ➢ Functional Components
- ➢ Webpack
- ➢ Usage of NPM or Yarn.
- ➢ AXIOS or Fetch
- ➢ GraphQL with ApolloClient
- ➢ Async and Await
- ➢ Debugging
- ➢ Template Literals
- ➢ Object de-structuring
- ➢ React - Hooks
- ➢ React - Context API
- ➢ React - Refs

NodeJS Course Content

Chapter 1 : INTRODUCTION TO NODE WORLD

- ➢ Introduction to Javascript event driven programming
- ➢ Introduction to Node event -driven programming

Chapter 2 : MAKING A WEB SERVER

- ➢ Webserver basis
- ➢ How to set up a router?
- ➢ Serving static files / pages
- ➢ Content caching
- ➢ Streaming andoptimization
- ➢ File System Security issues and measures

Chapter 3 : HTTP OBJECT

- ➢ Introduction to HTTPObject
- ➢ Processing POST Data

- ➢ Handling File uploads
- ➢ Using Node as HTTP Client
- ➢ Implementing download Throttling

Chapter 4 : WORKING WITH DATA SERIALIZATION

- ➢ JSON to Object & Object to JSON
- ➢ XML to Object and Object to XML
- ➢ Explanation Browser to Server communication

Chapter 5 : WORKING WITH DATABASES

- ➢ Writing to a CSV File in Database
- ➢ Working with MYSQL Server in Databases

Chapter 6 : WEB DEVELOPMENT WITH EXPRESS

- ➢ Express scaffolding
- ➢ Defining and applying environments
- ➢ Dynamic routing
- ➢ Templating IN Express
- ➢ CSS engines with Express
- ➢ Initializing and using sessions
- ➢ Demo of making an Express web application
- ➢ File System Security issues and measures

Chapter 7 : ALL ABOUT SECURITY

- ➢ Basic Authentication methods
- ➢ Passwork cryptography
- ➢ Setting up HTTPS
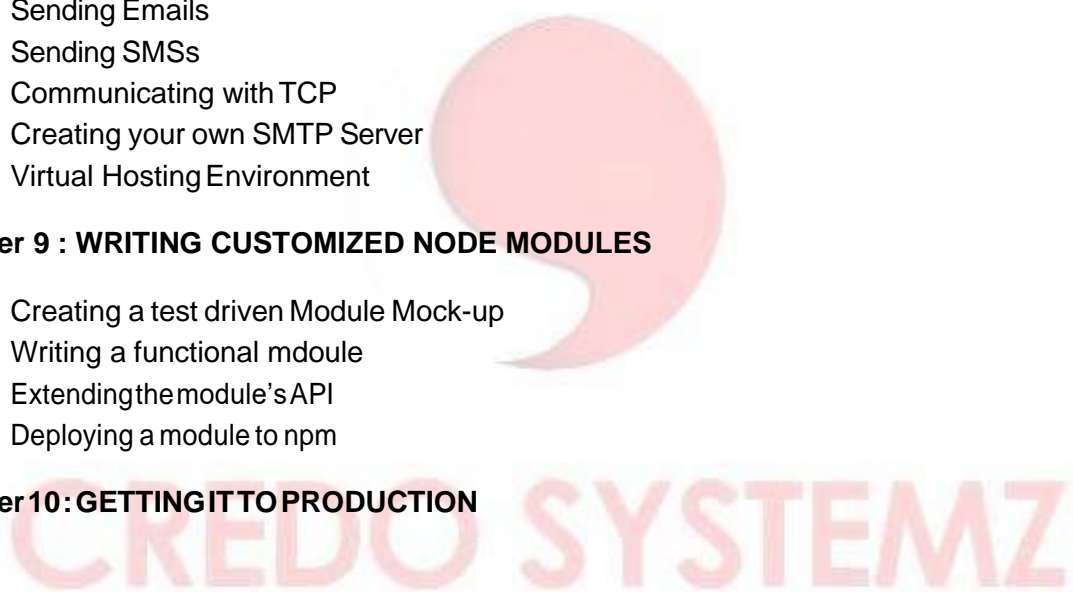- ➢ How to safegaurd your site from cross-site forgeries

Chapter 8 : ADVANCED NETWORK CONCEPTS

- ➢ Sending Emails
- ➢ Sending SMSs
- ➢ Communicating with TCP
- ➢ Creating your own SMTP Server
- ➢ Virtual Hosting Environment

Chapter 9 : WRITING CUSTOMIZED NODE MODULES

- ➢ Creating a test driven Module Mock-up
- ➢ Writing a functional mdoule
- ➢ Extending the module's API
- ➢ Deploying a module to npm

Chapter 10 : GETTING IT TO PRODUCTION

- ➢ How to set up production server environment
- ➢ How to set up auto crash recovery
- ➢ Continous Deployment in Node

Chapter 11: ADDITIONAL TOPICS

- ➢ In depth training in Typescript
- ➢ Working with Files
- ➢ Logging
- ➢ Debugging
- ➢ Streams
- ➢ WebSockets