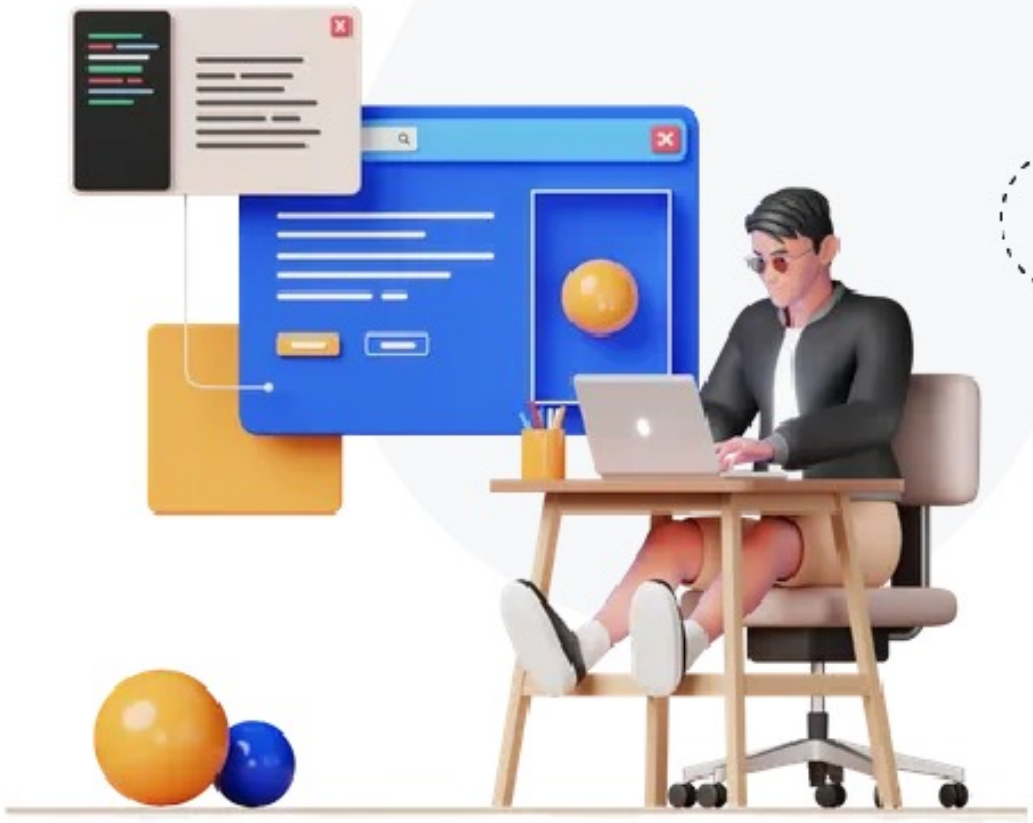
Zai SYSTEMS

FULL STACK DEVELOPMENT WEB



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Zai SYSTEMS

Building the Future with Tech

About us:

Zai Systems (SMC-PVT) Ltd is an innovative IT company specializing in product and project-based solutions. Our team of experts offers a wide range of services, including software development, project management, and product strategy. We provide different IT training to boost freshers' skills, benefit those who seek to earn online & also make paths to grow any business to the next level.

Why Choose us ?

Unlock new opportunities and take your career to the next level

- ☑ 24/7 support available
- ☑ Internship Based Training
- ☑ 100% Lead To Job Guarantee
- ☑ Also Get Trained On Freelancing

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About CEO:

An entrepreneurial mindset with outstanding organizational and leadership skills, the CEO of Zai Systems, Owais Ahmad Khan, have more than 10–12 years of experience working with many reputed Companies. The CEO oversees all operations and business activities to produce the desired results and is consistent with the overall strategy and mission.

What Does a Full Stack Developer Do?

Someone who works with the Back End — or server-side — of the application as well as the Front End, or client-side. Full Stack Developers have to have some skills in a vast variety of coding niches, from databases to graphic design and UI/UX management in order to do their job well.

Responsibilities of a Full Stack Developer include:

- ☑ Helping with the design and development of software
- ☑ Testing and debugging software to keep it optimized
- ☑ Testing and maintaining the responsive design of applications
- ☑ Designing user interactions on the web application itself
- ☑ Keeping up with technological advances to optimize their software

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FULL-STACK WEB DEVELOPMENT

Module Topic:

MERN Stack Development

➤ Front-End Technologies

- ☑ HTML5
- ☑ CSS3
- ☑ Bootstrap 5
- ☑ JavaScript
- ☑ jQuery
- ☑ AJAX/JSON
- ☑ Reactjs

➤ Back-End Technologies

- ☑ NodeJs
- ☑ ExpressJS

➤ Database

- ☑ MongoDB

MERN STACK
WEB DEVELOPMENT

In this project-based course students will learn to develop web applications MERN Stack

M E R N

It includes development of the server side (Back-End) of the application using NodeJS, Express Framework and MongoDB in the form of REST APIs and the Front-End of the web application using React, Redux & Bootstrap by consuming REST APIs.

Front-End Technologies

Hyper Text Markup Language (HTML5):

Module Objectives:

- Building Strong expertise to develop front end application using HTML5
- Implement MVC and responsive design to scale well across PC, tablet and Mobile Phone

Plateform:

- Linux (Fedora / Mandriva / Ubuntu) or Windows Host system
- Firefox, Chrome

Course Detail:

- ☑ Introduction HTML
- ☑ HTML Basics
- ☑ HTML Elements
- ☑ HTML5 Semantic
- ☑ HTML Attributes
- ☑ HTML Headings
- ☑ HTML Paragraph
- ☑ HTML Styles
- ☑ HTML Formatting
- ☑ HTML Quotations
- ☑ HTML Computer Code
- ☑ HTML Comments & Colours
- ☑ HTML CSS, Links and Images
- ☑ HTML Lists,Blocks,Classes ,Layout
- ☑ HTML Responsive,iframes,JavaScript, Head

Front-End Technologies

Cascading style Sheet (CSS3):

Module Objectives:

- Building Strong expertise to develop front end application using CSS3
- Implement MVC and responsive design to scale well across PC, tablet and Mobile Phone

Plateform:

- Linux (Fedora / Mandriva / Ubuntu) or Windows Host system
- Firefox, Chrome

Course Detail:

- ☑ Introduction CSS3
- ☑ CSS3 Syntax
- ☑ CSS3 How To
- ☑ CSS3 Colours
- ☑ CSS3 Backgrounds
- ☑ CSS3 Padding
- ☑ CSS3 Height/ Width
- ☑ CSS3 Gradients
- ☑ CSS3 Float / Align
- ☑ CSS3 Pseudo-elements
- ☑ CSS3 Media Quries
- ☑ CSS3 Counters / Buttons
- ☑ CSS3 Animation / Filters
- ☑ CSS3 Shadows
- ☑ CSS3 Text/ Fonts
- ☑ CSS3 Tables / Outline
- ☑ CSS3 2D Transforms
- ☑ CSS3 3D Tranforms
- ☑ CSS3 Links / Lists
- ☑ CSS3 Box Model / Display
- ☑ CSS3 Max-widh / Position
- ☑ CSS3 Combination
- ☑ CSS3 Navigation Bar
- ☑ CSS3 Images / Forms
- ☑ CSS3 User Interface
- ☑ CSS3 Multiple Columns
- ☑ CSS3 Dropdowns
- ☑ CSS3 Responsive
- ☑ CSS3 Pagination
- ☑ CSS3 Box Sizing

Front-End Technologies

Bootstrap:

Module Objectives:

- To become proficient in Bootstrap concepts
- To develop a web pages based on Bootstrap

Plateform:

- Linux (Fedora / Mandriva / Ubuntu) or Windows Host system
- Firefox, Chrome

Course Detail:

- ☑ Introduction to Bootstrap
- ☑ Bootstrap Basic
- ☑ Bootstrap Grids
- ☑ Bootstrap CSS
- ☑ Bootstrap Basics
- ☑ CSS3 Text/ Fonts
- ☑ Bootstrap Themes
- ☑ Bootstrap JS

Front-End Technologies

Javascript:

Module Objectives:

- Building Strong expertise to develop front end application using HTML5, CSS3 and JavaScript along with jQuery and AngularJS framework
- Implement MVC and responsive design to scale well across PC, tablet and Mobile Phone

Plateform:

- Linux (Fedora / Mandriva / Ubuntu) or Windows Host system
- Firefox, Chrome

Course Detail:

- ☑ Introduction to JavaScript
- ☑ JavaScript Language Basic
- ☑ JavaScript Objects
- ☑ JavaScript Scope
- ☑ JavaScript Array
- ☑ JavaScript Boolean
- ☑ JavaScript Comparisons
- ☑ JavaScript Conditions
- ☑ JavaScript Functions Objects
- ☑ JavaScript Events
- ☑ JavaScript Strings
- ☑ JavaScript Numbers
- ☑ JavaScript Math
- ☑ JavaScript Loops / Type Conversion
- ☑ JavaScript RegExp/ Errors
- ☑ JavaScript Debugging / Hoisting
- ☑ JavaScript Switch / Strict Mode
- ☑ JavaScript Forms / HTML DO
- ☑ JavaScript BOM

Front-End Technologies

jQuery:

Module Objectives:

- Building Strong expertise to develop front end application using HTML5, CSS3 and JavaScript along with jQuery and AngularJS framework
- Implement MVC and responsive design to scale well across PC, tablet and Mobile Phone

Plateform:

- Linux (Fedora / Mandriva / Ubuntu) or Windows Host system
- Firefox, Chrome

Course Detail:

- ☑ Introduction to jQuery
- ☑ jQuery Syntax
- ☑ JavaScript Objects
- ☑ jQuery HTML
- ☑ jQuery AJAX & Misc
- ☑ jQuery Selectors
- ☑ jQuery Events
- ☑ jQuery Effects
- ☑ jQuery Traversing

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Front-End Technologies

AJAX/JSON:

AJAX

- AJAX = Asynchronous JavaScript And XML.
- AJAX is not a programming language.

AJAX just uses a combination of:

- ☑ JavaScript and HTML DOM (to display or use the data)
- ☑ A browser built-in XMLHttpRequest object (to request data from a web server)

AJAX is a misleading name. AJAX applications might use XML to transport data, but it is equally common to transport data as plain text or JSON text. AJAX allows web pages to be updated asynchronously by exchanging data with a web server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page.

JSON

- ☑ JSON stands for JavaScript Object Notation
- ☑ JSON is a text format for storing and transporting data
- ☑ JSON is "self-describing" and easy to understand
- ☑ The JSON syntax is derived from JavaScript object notation, but the JSON format is text only
- ☑ Code for reading and generating JSON exists in many programming languages.

The JSON format is syntactically similar to the code for creating JavaScript objects. Because of this, a JavaScript program can easily convert JSON data into JavaScript objects.

Front-End Technologies

Reactjs :

Learning Objective:

- In this module, you will learn about MVC architecture, what is React and difference between single and multiple page applications. You will also learn how to install React,make use of NPM packages and ES6 concepts

Course Detail:

- ☑ Introduction to React
- ☑ Installation of React
- ☑ JSX and its use case
- ☑ ECMAScript
- ☑ Virtual DOM and its working
- ☑ Difference between ES5 and ES6
- ☑ Different Client-side Technologies
- ☑ Building Blocks of Web Application Development Single-page and Multi-page Applications
- ☑ DOM
- ☑ NPM Modules
- ☑ MVC Architecture

Front-End Technologies

React with Layout :

Components and Styling the Application Layout

Learning Objective:

- In this module, you will learn React core concepts like Components, State and Props.
- You will also learn how to build the application layout using forms and style sheets.

Course Detail:

- ☑ React Elements
- ☑ Render Function
- ☑ Multiple Components
- ☑ Different Form Concepts
- ☑ Props with Class based
- ☑ Props with Function based
- ☑ React Forms
- ☑ Inline Styling
- ☑ Props
- ☑ Components
- ☑ Class Component
- ☑ States
- ☑ Component Lifecycle
- ☑ React Events
- ☑ Styling in React
- ☑ CSS Stylesheet
- ☑ Building Music Shop Application using React Components

Front-End Technologies

React with Redux :

React State Management using Redux

Learning Objective:

- In this module, you will learn how to integrate Redux with React. Also, you will understand the other key terminologies associated with Redux to build a web application.

Course Detail:

- ☑ Need of Redux
- ☑ What is Redux?
- ☑ Redux Architecture
- ☑ Redux Action
- ☑ Redux Reducers
- ☑ Redux Store
- ☑ Principles of Redux
- ☑ Pros of Redux
- ☑ NPM Packages required to work with Redux More about react-redux package

Front-End Technologies

React with Routes:

Handling Navigation with Routes

Learning Objective:

- In this module you will learn to build an application using different route techniques and consume remote data by integrating API in React applications.

Course Detail:

- ☑ Routing
- ☑ Nested Routes
- ☑ Features of react-router
- ☑ Navigation using Links
- ☑ Build a REST API using json-server
- ☑ Configuration of routing using react-router
- ☑ API consumption in React application using Fetch method
- ☑ Build a dynamic Music Store application using Routing and API connectivity
- ☑ React-Router
- ☑ URL Parameters
- ☑ 404 page (Not found Page)
- ☑ Implementing styles using NavLink
- ☑ Application Programming Interfaces

Front-End Technologies

React with Saga :

Asynchronous Programming with Saga Middleware

Learning Objective:

- In this module, you will learn how to write and handle the Asynchronous actions using Redux-Saga Middleware

Course Detail:

- ☑ Need of Async operations
- ☑ Async Workflow
- ☑ Redux-Saga
- ☑ Saga Methods( )
- ☑ Action Creators
- ☑ How to write Action Creators?
- ☑ Generators in Redux-Saga
- ☑ Major Sections of Redux-Saga
- ☑ Building a Product List application using Redux-Saga Middleware
  Debugging application using Redux Devtools

Front-End Technologies

React Hooks :

Learning Objective:

- In this module, you will learn how to implement Class component Stateful features within Functionanal components using React Hooks.

Course Detail:

- ☑ What are React hooks?
- ☑ Caveat of JavaScript classes
- ☑ Fetch API data using useEffect() hook
- ☑ Fetch API data using useEffect() hook
- ☑ Pass multiple Context using useContext() hook Writing custom hooks
- ☑ Functional components and React hooks
- ☑ Building weather application using React hooks
- ☑ How to write useState() hook when state variable is an array of objects useEffect() hook
- ☑ Basic hooks
- ☑ Custom hooks
- ☑ useState() hook
- ☑ useContext() hook
- ☑ Additional hook
- ☑ Rules to write React hooks

Back-End Technologies

NodeJs :

Learning Objectives:

- Node.js is an open source server environment; Node.js is free ; Node.js can generate dynamic page content.
- Node. js (Node) is an open source development platform for executing JavaScript code server-side.

Course Detail:

- ☑ Introduction to Nodejs
- ☑ Synchronous and Asynchronous Programming
- ☑ Promises in Nodejs
- ☑ Mongodb with Nodejs
- ☑ Design the Rest API's
- ☑ JSON web Token Authentication in nodejs
- ☑ Create the E-commerce Backend
- ☑ Basic Hooks
- ☑ Architecture of Nodejs Application
- ☑ Call back Function in nodejs
- ☑ Design the Schema in Nodejs
- ☑ GET, POST, PUT, DELETE
- ☑ Create the Auth APP in nodejs
- ☑ Integrated Payment Gateway

Back-End Technologies

ExpressJS:

Topic:

- [x] Express
- [x] Nodemon
- [x] Route Parameters
- [x] Input Validations
- [x] Environment Variables
- [x] Handling HTTP GET/POST Request
- [x] Project- Build the Genres API
- [x] Calling Endpoints Using Postman
- [x] Handling HTTP PUT/ DELETE Request
- [x] Restful services
- [x] Introducing Express
- [x] Building your First Web Server
- [x] Building RESTFUL API's Using Express

Express- Advanced Topics:

- [x] Middleware
- [x] Built-in Middleware
- [x] Templating Engine
- [x] Database Integration
- [x] Structuring Express Applications
- [x] Creating a Custom Middleware
- [x] Environments
- [x] Configuration
- [x] Debugging
- [x] Database Engines
- [x] Authentication

DATABASE

MongoDB:

mongoDB.

Topic:

- [x] Introduction to MongoDB (No-sql)
- [x] Collections in MongoDb
- [x] Documents In mongoDb
- [x] Difference between Mysql and NoSql
- [x] Inserting data into database
- [x] Filter queries in Mongodb Databas
- [x] Schema Validation in MongoDb database
- [x] Indexing In collections
- [x] Aggregation in MongoDb
- [x] Ebedded Document in MongoDB

Get in Touch

Join us today and take the first step towards a rewarding career in information technology.

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