

Introduction to Vue.js

Duration: 2 Days

FA-0265 · 2 Days

Software Development · DevOps, Cloud & Infrastructure

Introduction

Course Description: This 2-day course provides an introduction to Vue.js, a popular JavaScript framework for building user interfaces. Participants will learn the fundamental concepts of Vue.js, including components, directives, and data binding. The course is designed for beginners with no prior knowledge of Vue.js. By the end of the course, learners will have a solid understanding of Vue.js and will be able to create basic web applications using this framework.

Learning outcomes

Upon completion of this course, participants will be able to:

- Understand the basics of Vue.js and its benefits for web development
- Set up a development environment for Vue.js projects
- Create Vue.js instances and components
- Utilize directives and data binding in Vue.js applications
- Understand the Vue.js component lifecycle
- Implement basic event handling and form input validation in Vue.js applications
- Create simple web applications using Vue.js

Prerequisites

- A basic understanding of HTML, CSS, and JavaScript is required
- Familiarity with web development concepts is beneficial
- System with terminal for SSH
- VS Code with SSH plugin

- Access to the internet
- Willingness to learn

Training outline

1. Day 1:

Introduction to Vue.js:

1. What is Vue.js? A brief history and its evolution.
2. Core principles and philosophy behind Vue.js.
3. The unique selling points and advantages of using Vue.js for web development.

Overview of Vue.js and its Benefits:

1. The design philosophy and architecture of Vue.js.
2. Performance benefits and speed comparison with traditional web development.
3. How Vue.js simplifies complex web application structures.

Comparison with other JavaScript Frameworks:

1. A detailed comparison of Vue.js with React and Angular.
2. Strengths and weaknesses of each framework.
3. Use-cases best suited for Vue.js versus other frameworks.

Vue.js Environment Setup:

1. System requirements and prerequisites for Vue.js development.
2. A step-by-step guide to installing Vue.js on your system.
3. Introduction to Vue CLI and its capabilities.

Creating a Vue.js Project:

1. Initializing a new Vue.js project using the CLI.
2. Understanding the project structure and key files.
3. Running and previewing the Vue.js application.

Using Vue.js with a Development Server:

1. Setting up a local development server for Vue.js.
2. Live reloading and debugging during development.
3. Tips and tricks for efficient Vue.js development.

Vue.js Instances and Components:

1. Deep dive into Vue.js instances: what they are and how they work.
2. The significance of components in a Vue.js application.
3. Building modular and reusable Vue.js components for scalable applications.

Directives and Data Binding:

1. Introduction to Vue.js directives: their role and significance.
2. Two-way data binding with the 'v-model' directive.
3. Conditional rendering using 'v-if', 'v-else', and 'v-show'.
4. Iterating over data using the 'v-for' directive.
5. Basics of event handling with the 'v-on' directive.

2. Day 2:

Vue.js Component Lifecycle:

1. A deep dive into the Vue.js component lifecycle.
2. Understanding the importance of each lifecycle hook.
3. Practical use-cases for each lifecycle hook in real-world applications.

Event Handling and Form Validation:

1. Handling user interactions with Vue.js event handlers.
2. Capturing and processing form data in Vue.js.
3. Implementing real-time form validation and feedback using Vue.js.

Mini-Project:

1. Putting all the learned concepts to practice.
2. Building a simple yet functional Vue.js web application from scratch.

3. Review and feedback session on the developed project.

Next Steps and Resources:

1. Exploring advanced Vue.js concepts and techniques for more complex applications.
2. Integration of Vue.js with other popular libraries and frameworks.
3. Curated list of online resources, tutorials, and further learning opportunities to enhance Vue.js skills.