# Vue.js Developer Training

**Duration: 40 HRS**

**Prerequisite:**

* Strong Knowledge on HTML 5,CSS3,BootStrap
* Strong Knowledge on Java script Fundamentals
* Must have worked any UI Projects

**Software Requirement and Hardware Requirement**

**Hardware Requirement:**

* 8 GB RAM Minimum
* Windows 10

**Internet Connection**

* Admin rights for installing node modules

Note : if you face problem during npm install phase, then you have to set admin rights and also proxy must be enabled.

**Proxy setup:**

* Open an command prompt or terminal session and run the following commands to configure npm to work with your web proxy. The commands use proxy.company.com as the address and 8080 as the port.

npm config set proxy http://proxy.company.com:8080

**IDE**

1.Visual Studio Code

**Runtime**

* Node - latest

NPM Modules:

* Can be installed during Session Only.

**Web Browsers - Any one Browser - Recommended Chrome**

* Chrome

**Tools -**

* Chrome Plugin -POST Man

**Vue.js Getting Started**

* What is Vue?
* What is DOM , What is VDOM
* Vue architecture
* The Progressive Framework
* Single-File Components
* API Styles

**Setup**

* [With Build Tools](https://vuejs.org/guide/quick-start.html#with-build-tools)
* [Without Build Tools](https://vuejs.org/guide/quick-start.html#without-build-tools)

**Create Vue Application**

* [The application instance](https://vuejs.org/guide/essentials/application.html#the-application-instance)
* [The Root Component](https://vuejs.org/guide/essentials/application.html#the-root-component)
* [Mounting the App](https://vuejs.org/guide/essentials/application.html#mounting-the-app)
* [App Configurations](https://vuejs.org/guide/essentials/application.html#app-configurations)
* [Multiple application instances](https://vuejs.org/guide/essentials/application.html#multiple-application-instances)

**Templates**

* [Text Interpolation](https://vuejs.org/guide/essentials/template-syntax.html#text-interpolation)
* [Raw HTML](https://vuejs.org/guide/essentials/template-syntax.html#raw-html)
* [Attribute Bindings](https://vuejs.org/guide/essentials/template-syntax.html#attribute-bindings)
* [Using JavaScript Expressions](https://vuejs.org/guide/essentials/template-syntax.html#using-javascript-expressions)
* [Directives](https://vuejs.org/guide/essentials/template-syntax.html#directives)

**Reactivity Fundamentals**

* Declaring Reactive State
* Reactive Proxy vs. Original
* Declaring Methods
* DOM Update Timing
* Deep Reactivity

**Computed Properties**

* [Basic Example](https://vuejs.org/guide/essentials/computed.html#basic-example)
* [Computed Caching vs Methods](https://vuejs.org/guide/essentials/computed.html#computed-caching-vs-methods)
* [Writable Computed](https://vuejs.org/guide/essentials/computed.html#writable-computed)
* [Best Practices](https://vuejs.org/guide/essentials/computed.html#best-practices)

**CSS**

* [Binding HTML Classes](https://vuejs.org/guide/essentials/class-and-style.html#binding-html-classes)
* [Binding Inline Styles](https://vuejs.org/guide/essentials/class-and-style.html#binding-inline-styles)

**Conditional Rendering**

* [v-if](https://vuejs.org/guide/essentials/conditional.html#v-if)
* [v-else](https://vuejs.org/guide/essentials/conditional.html#v-else)
* [v-else-if](https://vuejs.org/guide/essentials/conditional.html#v-else-if)
* [v-if on <template>](https://vuejs.org/guide/essentials/conditional.html#v-if-on-template)
* [v-show](https://vuejs.org/guide/essentials/conditional.html#v-show)
* [v-if vs v-show](https://vuejs.org/guide/essentials/conditional.html#v-if-vs-v-show)
* [v-if with v-for](https://vuejs.org/guide/essentials/conditional.html#v-if-with-v-for)

**List Rendering**

* [v-for](https://vuejs.org/guide/essentials/list.html#v-for)
* [v-for with an Object](https://vuejs.org/guide/essentials/list.html#v-for-with-an-object)
* [v-for with a Range](https://vuejs.org/guide/essentials/list.html#v-for-with-a-range)
* [v-for on <template>](https://vuejs.org/guide/essentials/list.html#v-for-on-template)
* [v-for with v-if](https://vuejs.org/guide/essentials/list.html#v-for-with-v-if)
* [Maintaining State with key](https://vuejs.org/guide/essentials/list.html#maintaining-state-with-key)
* [v-for with a Component](https://vuejs.org/guide/essentials/list.html#v-for-with-a-component)
* [Array Change Detection](https://vuejs.org/guide/essentials/list.html#array-change-detection)
* [Displaying Filtered/Sorted Results](https://vuejs.org/guide/essentials/list.html#displaying-filtered-sorted-results)

**Event Handling**

* [Listening to Events](https://vuejs.org/guide/essentials/event-handling.html#listening-to-events)
* [Inline Handlers](https://vuejs.org/guide/essentials/event-handling.html#inline-handlers)
* [Method Handlers](https://vuejs.org/guide/essentials/event-handling.html#method-handlers)
* [Calling Methods in Inline Handlers](https://vuejs.org/guide/essentials/event-handling.html#calling-methods-in-inline-handlers)
* [Accessing Event Argument in Inline Handlers](https://vuejs.org/guide/essentials/event-handling.html#accessing-event-argument-in-inline-handlers)
* [Event Modifiers](https://vuejs.org/guide/essentials/event-handling.html#event-modifiers)
* [Key Modifiers](https://vuejs.org/guide/essentials/event-handling.html#key-modifiers)
* [Mouse Button Modifiers](https://vuejs.org/guide/essentials/event-handling.html#mouse-button-modifiers)

**Form Handling**

* **Basic Usage**
  + - Text
    - Multiline text
    - Checkbox
    - Radio
    - Select
* **Value Bindings**
  + Checkbox
  + Radio
  + Select Options
* **Modifiers**
  + .lazy
  + .number
  + .trim
* v-model with Components

**Life cycle hooks and watchers**

* Lifecycle hooks
* Basic Example
* Deep Watchers
* Eager Watchers
* Callback Flush Timing
* this.$watch()
* Stopping a Watcher

**Template Ref**

* [Accessing the Refs](https://vuejs.org/guide/essentials/template-refs.html#accessing-the-refs)
* [Refs inside v-for](https://vuejs.org/guide/essentials/template-refs.html#refs-inside-v-for)
* [Function Refs](https://vuejs.org/guide/essentials/template-refs.html#function-refs)
* [Ref on Component](https://vuejs.org/guide/essentials/template-refs.html#ref-on-component)

**Components Basics**

* [Defining a Component](https://vuejs.org/guide/essentials/component-basics.html#defining-a-component)
* [Using a Component](https://vuejs.org/guide/essentials/component-basics.html#using-a-component)
* [Passing Props](https://vuejs.org/guide/essentials/component-basics.html#passing-props)
* [Listening to Events](https://vuejs.org/guide/essentials/component-basics.html#listening-to-events)
* [Content Distribution with Slots](https://vuejs.org/guide/essentials/component-basics.html#content-distribution-with-slots)
* [Dynamic Components](https://vuejs.org/guide/essentials/component-basics.html#dynamic-components)

## **Components In-Depth**

* Events
* Registration
* Fall through Attributes
* Slots
* Provide / inject
* Async Components

**Vue Router**

* **Essentials**
  + [Getting Started](https://router.vuejs.org/guide/)
  + [Dynamic Route Matching](https://router.vuejs.org/guide/essentials/dynamic-matching.html)
  + [Routes' Matching Syntax](https://router.vuejs.org/guide/essentials/route-matching-syntax.html)
  + [Nested Routes](https://router.vuejs.org/guide/essentials/nested-routes.html)
  + [Programmatic Navigation](https://router.vuejs.org/guide/essentials/navigation.html)
  + [Named Routes](https://router.vuejs.org/guide/essentials/named-routes.html)
  + [Named Views](https://router.vuejs.org/guide/essentials/named-views.html)
  + [Redirect and Alias](https://router.vuejs.org/guide/essentials/redirect-and-alias.html)
  + [Passing Props to Route Components](https://router.vuejs.org/guide/essentials/passing-props.html)
  + [Different History modes](https://router.vuejs.org/guide/essentials/history-mode.html)
* **Advanced**
  + [Navigation guards](https://router.vuejs.org/guide/advanced/navigation-guards.html)
  + [Route Meta Fields](https://router.vuejs.org/guide/advanced/meta.html)
  + [Data Fetching](https://router.vuejs.org/guide/advanced/data-fetching.html)
  + [Composition API](https://router.vuejs.org/guide/advanced/composition-api.html)
  + [Transitions](https://router.vuejs.org/guide/advanced/transitions.html)
  + [Scroll Behavior](https://router.vuejs.org/guide/advanced/scroll-behavior.html)
  + [Lazy Loading Routes](https://router.vuejs.org/guide/advanced/lazy-loading.html)
  + [Extending RouterLink](https://router.vuejs.org/guide/advanced/extending-router-link.html)
  + [Navigation Failures](https://router.vuejs.org/guide/advanced/navigation-failures.html)
  + [Dynamic Routing](https://router.vuejs.org/guide/advanced/dynamic-routing.html)

**State management using Vuex**

* flux design pattern
* Installation
* What is Vuex?
* Getting Started

**Core Concepts**

* + State
  + Getters
  + Mutations
  + Actions
  + Modules
* [Application Structure](https://vuex.vuejs.org/guide/structure.html)
* [Plugins](https://vuex.vuejs.org/guide/plugins.html)
* [Strict Mode](https://vuex.vuejs.org/guide/strict.html)
* [Form Handling](https://vuex.vuejs.org/guide/forms.html)
* [Testing](https://vuex.vuejs.org/guide/testing.html)
* [Hot Reloading](https://vuex.vuejs.org/guide/hot-reload.html)

**Advanced features**

* Authentication
* transitions and animations
* form validations advanced
* file upload
* vue-i18n
* vue -cli
* Vue 3 features
* Build tools configuration
* configuration
* babel
* es linting
* webpack
* sass
* plugins