**Roadmap to learnVueJS**

## **1. Prerequisites**

* **Basic knowledge of HTML, CSS, and JavaScript.**
  + HTML
    - Learn the basics and how to write semantic HTML.
    - Dividing page into sections and how to structure the DOM properly.
    - Understand the differences between HTML 4 and HTML 5.
    - Make at least 5 HTML pages - focus on structure.
  + CSS
    - Learn the basics of CSS
    - Learn how to use Grid and Flexbox.
    - Understand the differences between Grid and Flexbox.
    - Media queries and Responsive Websites.
    - Understand the differences between CSS2 and CSS3
    - Style the HTML pages that you made in last step.
    - Understanding Vuetify.
    - Understanding Tailwind CSS.
    - Learn Css Preprocessor (ex. SASS)
  + Javascript
    - Learn the syntax and basic constructs.
    - Learn if statement, switch
    - Learn different types of loops i.e. for-in and for-of loop and forEach
    - Learn predefined function i.e. find(), splice(), includes(), push() … etc.
    - Learn logical operators i.e. ||, && …etc.
    - Learn about handling arrays and objects
    - Learn spread operators and constructions
    - Learn promises and callback
    - Learn async/await
* **Basic understanding of ES6 features.**
  + Understand let, const and var.
  + Arrow functions
  + Imports and Exports.
* **Basic understanding of NodeJS and how to use NPM & Yarn.**
  + Learn basics of NodeJS and how it working.
  + Learn how to install Packages with using NPM & Yarn

## **2. Getting started with VueJS**

* **Understanding SPA concept.**
* **VueJS**
  + Understand Vue Components.
  + Understand communicating between Components.
  + Props & State.
  + Component Lifecycle.
  + Understand Directives
  + Computed Properties, Watchers, Filters and Mixins
  + Handling Events.
  + Understand the differences between Vue2 and Vue3.
  + Understand Setup Function(Vue3).
  + Understand Composition API (Vue3)
  + Understand the differences between Composition API and Options API.
* **Module bundlers tools (Webpack)**
  + Understand Webpack.
  + Create Webpack config file.
* **BabelJS**
  + Understand BabelJS
  + Create Babel config file
  + Learn how to install Babel plugins and presets.

## **3. Build Vue Application.**

* **Using Axios**
  + Access http via axios
  + Understand POST, GET, PATCH,PUT, DELETE requests
  + Configure Axios globally
  + Connecting with backend servers
* **Understanding of Vue Router**
  + Connect Components with routers.
  + Setting Up Child Routes and Nested Routes.
  + Named Routes
  + Understanding Link and how to pass params with the router.
  + Router views
  + Redirecting
  + Using Routes with Guards
* **Understanding of Vuex.**
  + How to manage state using vuex.
  + Understanding actions & gettters, mutations.
* **Deployments**
  + Deploying the App to AWS S3.

## **4. General Development Skills.**

* **Using GIT (ex. Github)**
* **HTTP(S) protocols**
* **Learn to search for solutions**
* **Terminal usage**