



MODERN WEBSITES WITH

Vue.js

BY SALIE LIM

Modern Websites with Vue.js

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1.0. Introduction

1.1. Why this book?

Welcome to Modern websites with Vue.js. In this book I am going to show you how to build state-of-the-art static websites using the latest technology stack.

In this day and age there's an abundance of resources but you have limited time and you're forced to choose resources carefully. This course brings together fragmented sources to give you a complete but concise guide to building a modern website from scratch. This resource will not only show you how to do something but also explain why. We will utilise best-practice templates to speed up the website development process. In a matter of hours you would have coded and deployed your first static site built with a modern JavaScript library.

1.2. Who is this book for & Prerequisites

This book is for complete beginners, as well as web designers and WordPress developers who want to explore emerging technologies, as well as seasoned back-end developers who want to dip their toes in the front-end world. You may be a marketer looking to build landing pages or a business owner building a website. This book will assume that you've no prior knowledge of web development and guide you through the basics of HyperText Markup Language (HTML), Cascading Style Sheets (CSS), JavaScript, Git and the Command Line. Feel free to skip to Chapter 4 if you have basic web development knowledge and dive straight into building sites with Vue.js and React.

1.3. What will you learn

By the end of the book you would have a good understanding of front-end static website development. You'll be able to build an entire site, hook it up to a content infrastructure and deploy it to your very own domain. You can build this site for your portfolio or business.

This book walks you through building a modern website from start to end. I will give an introduction to the library we will be using and walk you through the setup. Then I will explain the project folder structure and best practices of where to write your code. Styling and customising the website will be covered too.

Having worked through this book you would have future-proofed your web development skills. The world of web development is moving towards websites that load instantly and are silky smooth to browse. This book uses the latest technologies to give you a good foundation to build upon knowledge as technology trends change.

1.4. What will you build

In the end there will be two projects that you will build and publish publicly.

In Chapter 4 you'll build a website with static pages and a form. Vue.js will be the JavaScript library we will be using to build our modern website. We will make content accessible via Contentful APIs and editable in a CMS-like web app. Then the site will be deployed on Netlify and you can add your custom domain to it.

In Chapter 5 you'll build a static website with React and Gatsby. Netlify CMS will be used to provide an interface for editing content on the website. GraphQL will be used to fetch the content to be displayed on the webpage. In the end, you'll have your own production-ready website, which you will deploy.

2.0. Modern Front-end Web Development

2.1. Introduction to Front-end Web Development

Front-end web development involves creating the graphical interface for users to view and interact with webpages.

The three languages used on the Front-end are HTML, CSS and JavaScript. They make up the client-side code that is rendered on your internet browser. Now Front-end JavaScript frameworks like React, Angular and Vue.js are used to build sites faster and they are optimised for user load speeds.

2.2. What about the Back-end?

Back-end web developers on the other hand are responsible for server-side application logic. Information like site content is served from the database in the back-end and integrated into the user interface on the front-end.

2.3. Evolution of Front-end Web Development

Website development have come a long way. In the beginning, web pages only show text. It was only in the mid 90's that graphics and animated GIFs made its appearance on the web.

In 1998, Macromedia Flash and Fireworks was all the rage for creating webpages with animations and graphics. By the early 2000s, CSS was used widely to style webpages.

In 2007, Apple released the iPhone and smartphone usage took off. Websites were expected to work well across devices of varying sizes. Responsive web design is now an important aspect of web development.

In the same year WordPress, a free and open-source content management system (CMS) based on PHP and MySQL grew in popularity. It now powers 30% of all sites on the Internet, including about 15% of the top 100 websites in the world.

2.4. Disadvantages of WordPress

WordPress is easy to setup and customise. However it also has disadvantages. WordPress has numerous constant updates that render parts of your site usable. Site owners have to constantly troubleshoot and maintain their WordPress sites.

It is also the most hacked CMS platform on the internet. Security is an issue as WordPress relies heavily on plugins and themes for customisation. These plugins and the themes are not monitored and they can easily contain bugs or malicious code.

The worst of all, WordPress websites can be slow and bloated with unnecessary code from plugins and themes. The editor in WordPress generates bad HTML as well.

Even though WordPress is opensource and free, it isn't really. There are significant costs to WordPress sites like hosting, paying for plugins and themes for customisation.

2.5. The Modern Web & Moving away from WordPress

Over the past few years several new front-end technologies emerged. The web development landscape has shifted radically towards the JAMstack, a modern web development architecture based on client-side JavaScript, reusable APIs, and prebuilt Markup.

It is now easier but much more technical to build websites. Modern JavaScript libraries can greatly improve the speed and efficiency of building websites while maintaining a well-organised and scalable codebase. They provide a better developer experience

JAMStack sites deliver reliable sites that load instantly even in uncertain network conditions. Such sites respond quickly to user interactions with silky smooth animations like a native app. They have higher security and lower cost of scaling.

On the back-end, modern websites are API-centric, data can be consumed via web, mobile app, in multiple formats and mediums. WordPress was built with website content in mind, not content across multiple devices and platforms. We will be using Contentful API on the back-end to serve content to be displayed on the browser.

In the end you'll be better off with a website built from scratch using a modern Javascript framework like Vue.js or React with content served via an API.

2.6. Comparison of Front-end JavaScript Frameworks

It used to be that JavaScript and JQuery were used for the front-end, nothing else. However in last few years the landscape has been flooded with JavaScript frameworks. Every few months a new JavaScript library pops up.

How do you know which framework to use then? It ultimately depends on your project needs. In this book we are building a simple static website so we only need a simple library that is easy for beginners to pick up. The Vue.js learning curve is shallow compared to other frameworks out there like Angular and React. It is simpler, less complex and easy to setup. Vue's documentation also uses layman's terms and is easy for beginners to understand.

Now that you understand the basics of web development we will get started on writing some basic code in the next chapters.

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