

Learning Bulma

Understand How to Develop
Responsive, Mobile-first Websites
Using This Impressive, Modern
Framework

Aravind Shenoy

Apress®

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*I dedicate this book to my mother **Vatsala Shenoy**; she indeed is my rock. She stood by me all my life without any expectations and completely accepted me the way I am (despite me being a misfit 😊). Without her, I would have never written a book in the first place. The immense support and unconditional love from my mother is very much a part of my success. I don't want to say anything more, as it will spoil what I want to convey*

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About the Author



Aravind Shenoy is a Senior Technical/Content writer by profession, whose core interests are technical writing, content writing, information development, web design, and business analysis. He was born and raised in Mumbai. A music buff, he loves listening to rock n' roll & rap. Oasis, R.E.M, The Doors, Dire Straits, Coldplay, 3 Doors Down, Jimi Hendrix, Cranberries, U2, Prodigy, and Michael Jackson rule his playlists.

An engineering graduate from the Manipal Institute of Technology and author of several books, he is a keen learner and believes there is always a steep learning curve in this walk of life. In summary, he quips: "The most important thing is to be happy. After all, we're here for a good time, not a long time. Maybe... Definitely maybe." ☺

About the Technical Reviewer



Alexander Chinedu Nnakwue has a background in Mechanical Engineering from the University of Ibadan, Nigeria and has been a front-end developer for more than 3 years, working on both web and mobile technologies. He also has experience as a technical author, writer, and reviewer. He enjoys programming for the Web, and occasionally you can also find him playing soccer. He was born in Benin City and is currently based in Lagos, Nigeria.

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CHAPTER 1

Jumpstart Bulma

Bulma (<https://bulma.io/>) is an open source web design framework that is used to create immersive web sites. Bulma is a powerful CSS framework for designing scalable front-end code quickly and effectively. Adhering to a mobile-first paradigm, it comes with built-in CSS components for creating responsive web sites. The beauty of Bulma is that it abstracts the pain of scratch-coding by providing you with the tools and utilities to create interactive web sites in a hassle-free, time-saving way.

Prior to moving ahead, we need to understand the usability of CSS frameworks in web design. Aspects like cross-browser computability, consistency, and the speed of developing web apps/sites add to the arduous task of constructing an efficient layout and a feature-rich web site. Beginners need to remember that all CSS frameworks come with predesigned sets of reusable code and modules that not only speed up development time but also take the guesswork out of complex styling. This also results in clean coding and ensures that your web sites scale properly over devices of any make or screen/device size.

This book is aimed at introducing you to the basic properties of Bulma in an easy-to-comprehend manner. Bulma's baked-in new grid system, layout, content modules, typography, helper classes, media, and forms help design robust user interfaces without the bulk or clutter associated with heavyweight frameworks. Moreover, adhering to a mobile-first philosophy, it eliminates the pain and bottlenecks of developing intuitive web sites for smartphones, tablets, and compact platforms.

In the next section, we will explore the differences between mobile-first and responsive design that will help budding web designers understand the basic concepts coherently.

Mobile-First vs. Responsive Web Design

Mobile-first design involves building a web site/app for the mobile platform. Once the site has been designed, it is tweaked for the bigger screens/bigger devices like tablets, desktops, or large display screens. It is all about creating an immersive user experience on smartphones and other small-screen mobile devices (akin to the progressive enhancement ideology). If the majority of your users are mobile users, then this approach will be optimal. It is tailored to fill all the gaps specifically for mobile devices, but may lack in certain aspects when it comes to traditional desktop site versions.

In contrast, responsive web design is inclined toward traditional desktops and then tweaked for smaller screens/devices. It is tailored for creating an immersive user experience on normal-sized desktops and large display screens (akin to the graceful degradation ideology). If your target audience is desktop users, then this approach will be optimal; however, it lacks certain aspects when it comes to mobile phones or small screen compact devices.

Mobile App/Sites—the De facto Standard for Google

Starting July 2019, according to reports (<https://developers.google.com/search/mobile-sites/mobile-first-indexing>), Google has focused on the default indexing of mobile sites rather than the traditional desktop web site version. Google stated that mobile-first indexing is the preferable method, as most users tend to view and publish information on mobile-platforms.

Google has stressed the fact that the information on the mobile and desktop versions of the web sites should be the same, inclusive of the titles, structured data, and metadescription. Older web sites will be indexed until the mobile web pages are designed.

Studies (www.statista.com/topics/779/mobile-internet/) have suggested that mobile data traffic is going to grow manifold, at least seven-fold by 2022. With four billion unique mobile users by April 2019, and 48% of web pages worldwide accessed through the smartphone platform, mobile-first is the way to go.

Both mobile-first and responsive web design preference depend on the current technological advances and target audience. For example, a recent study (<https://darwindigital.com/mobile-first-versus-responsive-web-design/>) concluded that B2B companies still showed interest in responsive design, with most users checking out the products/services/solutions on the desktop web site version.

Now, let's get started with Bulma and become acquainted with the inner workings of this easy-to-understand web design framework in the next section.

Jump-Start Bulma

Bulma, being mobile-first, is tailor-made for mobile devices, but with a few tweaks it can be optimized for traditional desktops too. Keep in mind that it was created keeping mobile platforms as the crux, therefore the web sites you design using Bulma are in line with Google's current and future trends. It definitely is SEO-friendly and future-proof as Google leans toward mobile web sites for indexing purposes compared to conventional desktop versions.

To access the Bulma official web site, use the following:

<https://bulma.io>

The mobile site version of the Bulma official web page is shown in Figure 1-1.



Figure 1-1. *Bulma mobile site*

The desktop site version of the Bulma official web page is shown in Figure 1-2.

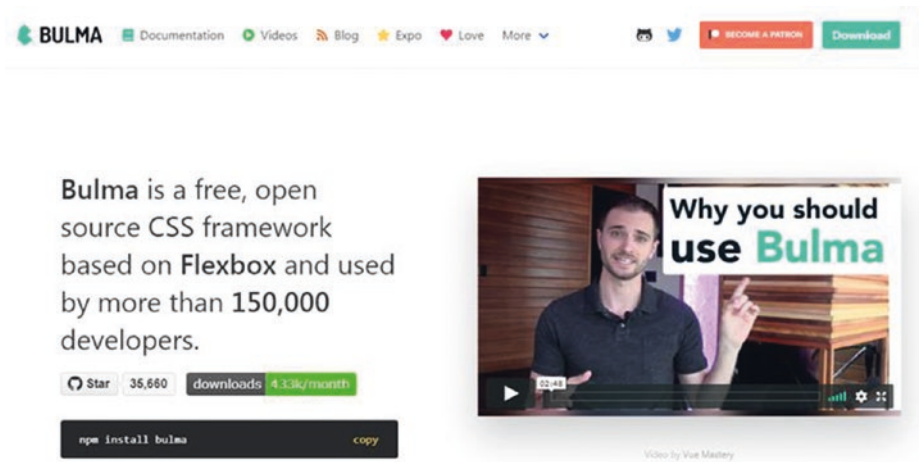


Figure 1-2. *Bulma desktop site*

From the preceding screenshots, you can see that the content of the desktop site and mobile site are the same but are displayed differently owing to the larger desktop and smaller mobile screens.

However, remember that Bulma is mobile-first in nature, meaning it is tailored for mobile platforms and can then be optimized for tablets and large desktops with minimum tweaks.

Now that we have a brief idea about the responsiveness of this mobile-inclined framework, we will move forward to the installation process in the next section.

Installing Bulma

There are three specific ways of installing Bulma, and you can choose any one of them as per your business and design requirements.

Method I

To download and then install Bulma for your web projects, you need to click the Download button located at the top-right section of the Bulma desktop official home page (Figure 1-3).

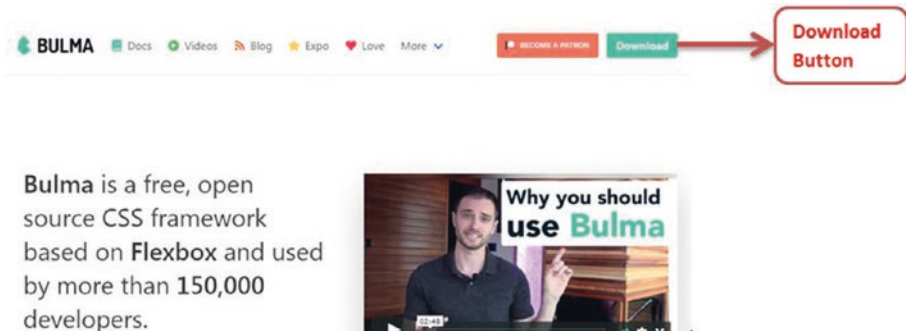


Figure 1-3. Download button for installing Bulma zip file

On downloading, you will get the Bulma zip file. On unzipping the Bulma zip file, you can see the different files and folders, which have the file structure shown in Figure 1-4.

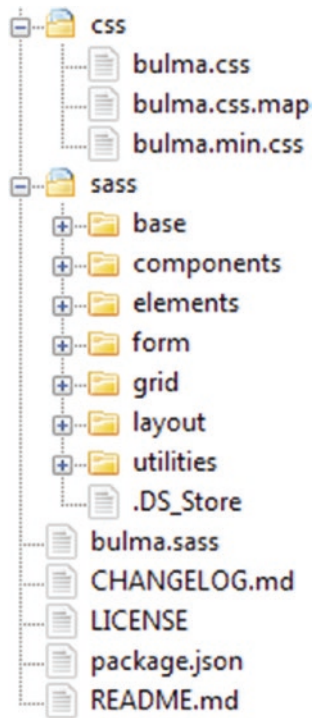


Figure 1-4. File structure of the downloaded and unzipped Bulma framework (latest version 0.7.5)

You can include the link to this file in your HTML page to use it at the basic level.

Method II

Another way to include Bulma is by using the CDN link for the Bulma framework:

```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/
libs/bulma/0.7.5/css/bulma.min.css">
```

There are several advantages of using a CDN file for your web projects. For starters, a CDN (content delivery network) holds copies of your file in several locations across multiple servers. The files can be images, fonts, scripts, or videos. The benefits include the following:

- More servers and easy maintenance
- More bandwidth
- High performance
- Redundancy for fail-safe protection
- Optimized caching settings
- Parallelized downloads

Method III

You can use Node Package Manager (NPM) to install the Bulma package, specifically using the following command:

```
npm install bulma
```

The entire process of installing Node.js on Windows is explained in the following link:

<https://blog.teamtreehouse.com/install-node-js-npm-windows>.

For Android and Linux distributions, you can take a look at the following link:

<https://nodejs.org/en/download/package-manager/>.

Note- Icons in Bulma can be included by using the Font Awesome 5 link:*

```
<script defer src="https://use.fontawesome.com/releases/v5.3.1/js/all.js"></script>
```

Summary

In this chapter, we saw an overview of the easy-to-use Bulma framework. We looked at the differences between mobile-first and responsive web design, and how things are going to shape up in the present and the near future. Moving forward, we looked at the different methods of installing Bulma in your web projects. The next chapter will explain the grid system and utility classes that will enable you to get to grips with this powerful web design toolkit.

CHAPTER 2

Grids and Utility Classes

Bulma is an intuitive framework adhering to the mobile-first approach. In this well-connected era, people prefer mobile web sites compared with traditional desktop web sites and other media. Moreover, a mobile-first paradigm accounts for better semantics, simplified code structure, and a superlative user experience.

Bulma is genetically tailored for the mobile platform. It includes simple modules and components; using them, your web site can be tweaked for desktop and widescreen display too. Bulma follows a minimalistic approach, as the focus is completely on interactive web site design and rapid development

In this chapter, we will learn about grids and utility classes in Bulma including columns, offsets, gaps, and helper classes that render ultimate flexibility and simplicity for creating immersive web sites.

Note: In this book, we will be using Notepad++ as the default editor for all the code examples. Sample content from www.catipsum.com is used for the code examples in the book.

The best way to learn web design is to start coding and learning it practically instead of wandering through loads of theory—so let's start working with Bulma immediately.

Bulma Prototype/Starter Template

Like all CSS frameworks, Bulma has the basic prototype with the CDN and supported icon links that will be a part of all the code examples in this book.

Listing 2-1 depicts the Bulma starter template with all the necessary links and attributes.

Listing 2-1. Bulma Starter Template

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-
      scale=1">
    <title>Hello Bulma!</title>
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/
      ajax/libs/bulma/0.7.5/css/bulma.min.css">
    <script defer src="https://use.fontawesome.com/releases/
      v5.3.1/js/all.js"></script>
  </head>
  <body>
    <section class="section">
      <div class="container">
        <h1 class="title">
          Welcome to Bulma- a simple and effective framework
        </h1>
      </div>
    </section>
  </body>
</html>
```