# **Introduction to Bulma CSS Framework**

<https://bulma.io/documentation/>

## **Overview**

**Bulma** is a modern, open-source CSS framework based on Flexbox. It provides a set of flexible and responsive CSS components that allow developers to build clean and customizable web interfaces quickly. Bulma is designed to be simple, yet powerful, offering a minimalistic approach that makes web design more accessible without compromising functionality or responsiveness.

Bulma was first released in 2016 by **Jeremy Thomas** and has gained popularity due to its ease of use, mobile-first design, and its reliance on Flexbox for layout management. It is modular, so you can include only the parts of the framework that you need, making it a lightweight choice for developers who prefer flexibility and simplicity.

## **Key Features of Bulma**

1. **Flexbox-based Grid System**: Bulma utilizes **Flexbox**, a powerful layout system that makes creating complex layouts easy and intuitive. Flexbox enables responsive design with fewer lines of code and less reliance on floats or custom positioning.
2. **Responsive Design**: Bulma is inherently responsive. It provides a flexible grid system that adapts to various screen sizes, from mobile devices to large desktop screens. This helps ensure that your web application works seamlessly across different devices and screen resolutions.
3. **Modular CSS**: Bulma follows a modular structure, meaning you can import only the components you need. It provides a set of well-documented, reusable components, such as buttons, forms, navbars, and cards. This modularity allows developers to keep the project lightweight and maintainable.
4. **Customizable**: Bulma is easy to customize through its built-in Sass variables. You can adjust colors, spacing, font sizes, and other design elements to fit your project’s unique branding. You can also use Bulma’s predefined themes or create your own.
5. **Minimalistic and Clean Design**: Bulma emphasizes clean and modern aesthetics. Its default styles are simple and minimalistic, allowing you to create attractive designs with little effort. Developers can build on top of these styles to create their own custom themes.
6. **No JavaScript Dependencies**: Unlike many other frameworks, Bulma does not come with JavaScript components (like modals or carousels) but instead relies purely on CSS for styling. This can be advantageous in keeping the page lightweight and decoupling styling from functionality, which allows developers to use their own JavaScript libraries as needed.

## **Key Components of Bulma**

### **1. Grid System**

Bulma's grid system is based on **Flexbox** and provides 12 columns that can be used to create responsive layouts. You can define how many columns a section should span, or create offsets and nested columns for more complex layouts.

Example:

html

Copy code

<div class="columns">

<div class="column is-half">Column 1</div>

<div class="column is-half">Column 2</div>

</div>

### **2. Form Elements**

Bulma offers a set of well-designed form elements like text inputs, checkboxes, radio buttons, and select dropdowns.

Example:

html

Copy code

<div class="field">

<label class="label">Email</label>

<div class="control">

<input class="input" type="email" placeholder="Email input">

</div>

</div>

### **3. Buttons**

Bulma provides a variety of button styles that can be customized with different colors and sizes.

Example:

html

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<button class="button is-primary">Primary Button</button>

### **4. Cards**

The **Card** component is a versatile content container that can hold images, titles, text, and other elements.

Example:

html

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<div class="card">

<div class="card-content">

<p class="title">Card Title</p>

<p class="content">Some content goes here.</p>

</div>

</div>

### **5. Navbars**

Bulma offers a responsive navigation bar that automatically adapts to different screen sizes.

Example:

html

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<nav class="navbar">

<div class="navbar-brand">

<a class="navbar-item">Home</a>

<a class="navbar-item">About</a>

</div>

</nav>

## **How to Install Bulma**

There are several ways to include Bulma in your project:

**Using a CDN**: You can link directly to Bulma’s CSS file hosted on a CDN in your HTML file.  
html  
Copy code  
<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bulma@0.9.4/css/bulma.min.css">

**NPM Installation**: If you're using Node.js, you can install Bulma via NPM and integrate it into your build process (e.g., using Webpack, Gulp, or Parcel).  
bash  
Copy code  
npm install bulma

1. **Downloading Bulma**: You can download the Bulma CSS file directly from the official website or GitHub and include it in your project.

## **Best Practices When Using Bulma**

1. **Modular Usage**: Instead of importing the entire Bulma package, only import the components you need for your project. This helps reduce the overall size of your application.
2. **Customizing Bulma**: Take advantage of Bulma’s Sass variables to customize the framework’s colors, spacing, and typography to match your brand’s style guide.
3. **Responsive Design**: Since Bulma is built with responsiveness in mind, make sure to utilize its grid system and responsive utilities to ensure your app looks great on all devices.
4. **Avoid Overriding Styles**: Bulma's default styles are generally very clean and minimal. If possible, try to work with these defaults rather than overriding them with your own CSS, as this can increase maintenance complexity.