

Foundation



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History (Knowledge)

A coding style guide at ZURB (product design company) transitioned into Foundation solely for clients

2011

Foundation 3 was released. The focus was on using Sass to build the framework. This increased the organization of sheets and the efficiency of code writing.

2013

Foundation 6 was released and focused on making aspects of previous versions faster to learn, create, and execute.

2019

2008

ZURB released Foundation 2.0 under the MIT software license. Foundation 2's MIT License facilitated the dissemination of its use, allowing developers worldwide to adopt it for their projects.

2012

Foundation 4 was released, which focused on coding smarter. The entire framework was redone to be Mobile First in collaboration with Luke Wroblewski.

2016

The ownership and maintenance of Foundation were taken over by volunteers in 2019. ZURB currently has no equity in Foundation

Background Information (Comprehension)

- Responsive Web Design is the practice of enabling web applications to adjust dynamically to different viewport sizes with the intention of providing an optimal user experience across devices like mobiles, tablets, and desktops.
- Foundation is a responsive front-end frameworks which means that it offers a collection of pre-written HTML, CSS, and JavaScript code and helps in the building of flexible layouts that adapt to any screen resolution.

Background Information (Comprehension)

Foundation's is appealing to developers because it:

1. Provides a robust grid system for structured layout adjustments.
2. Offers customizable CSS components and JavaScript plugins to enhance user experience.
3. Designed with a mobile-first approach, prioritizing performance and accessibility on smaller devices.
4. Promotes accessibility, adhering to WCAG guidelines.
5. Specialized framework available for creating responsive email templates, improving the reach and effectiveness of email campaigns.

Building a Foundation Application

- Step 1: Downloading Foundation
 - Visit the Foundation website and click on "Download Foundation 6".
 - Choose the appropriate package: Lightweight, Heavyweight, or Custom zip based on your project needs.
- Step 2: Exploring the Package Contents (Heavyweight Zip Example):
 - index.html: A starting template.
 - css/: Folder containing CSS files for styles.
 - js/: Folder with JavaScript files for functionality.
- Step 3: Setting Up Your Project
 - Open the index.html file to start with a pre-designed template.
 - Familiarize yourself with the folder structure and files included.
- Step 4: Customizing Foundation
 - Use the CSS files to adjust styles and layout.
 - Utilize JavaScript plugins for added functionality like form validation, sliders, and more.
 - Explore Foundation's customization options for grid sizing, padding, and other style elements.

When is Foundation the Right Choice? (Analysis)

- Foundation is particularly useful for rapid prototyping due to its comprehensive library of UI components.
- Foundation is also an outstanding email tool facilitating email template creation and mass email campaigns. Business owners and marketers can create responsive email templates accessible and readable across various email clients and devices (much like its web framework), ensuring fast and efficient email delivery.
- For websites expected to serve a wide range of devices and maintain a consistent experience across all of them, its mobile-first approach ensures that applications perform well on mobile devices.

Synthesis

Foundation vs Bootstrap and Tailwind CSS (Evaluation)

- Bootstrap and Tailwind CSS are all popular alternatives to Foundation as they provide similar features and responsiveness.
- Foundation is used more in projects that require a high level of modularity and flexibility, along with a lot of customizability.
- While bootstrap is more for projects that require rapid development and need a simple standardized look throughout.

Understanding The Heavyweight ZIP File

The CSS Folder is comprised of three files:

1. `app.css`: for personal styling
2. `foundation.css`: default Foundation styling
3. `foundation.min.css`: minifies (strips all unnecessary elements, like comments or whitespace, so CSS and javascript files render faster) the CSS stylesheet

The JS Folder is comprised of one file and a vendor folder

- 1) Your personal JS code goes in the `app.js` file
- 2) The vendor folder is comprised of several files:
 - a) The default Foundation Javascript is written in `default.js`
 - b) The JS code is minified in `foundation.min.js`
 - c) The default jQuery (JS library that facilitates the manipulation of HTML) code is written in `jquery.js`
 - d) Screen display is modified based on whether a user is using a mouse or a keyboard in `what-input.js`

Understanding The Heavyweight ZIP File

index.html file

Foundation's starter kit simplifies the process of customizing Foundation code:

1. Open the index.html file and modify the body to your liking
2. Next, add styles to app.css, which is made for user customization
3. Finally, improve the web page functionality by adding personal functions to app.js