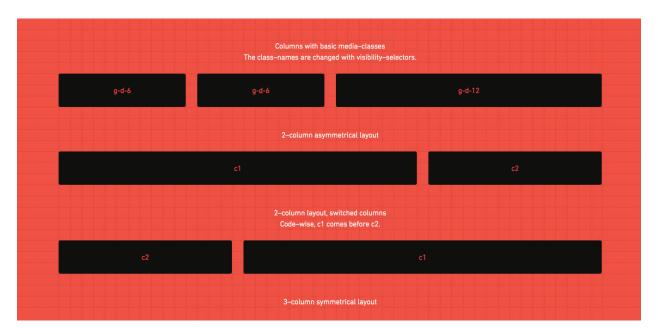
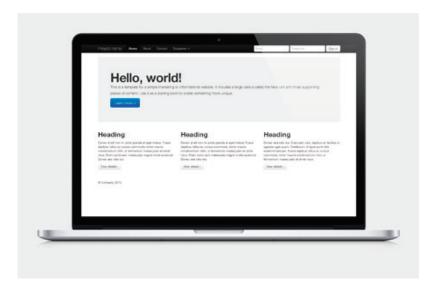
# INTERACTIVE DESIGN/ADVANCED DESIGN FOR THE WEB



A framework is a standardized set of concepts, practices and criteria for dealing with a common type of problem, which can be used as a reference to help us approach and resolve new problems of a similar nature.

In the world of web design, to give a more straightforward definition, a framework is defined as a package made up of a structure of files and folders of standardized code (HTML, CSS, JS documents etc.) which can be used to support the development of websites, as a basis to start building a site.



Most websites share a very similar (not to say identical) structure. The aim of frameworks is to provide a common structure so that developers don't have to redo it from scratch and can reuse the code provided. In this way, frameworks allow us to cut out much of the work and save a lot of time.

To summarize: there's no need to reinvent the wheel.

## HOW MANY TYPES OF FRAMEWORKS ARE THERE?

There are basically 2 types to differentiate: backend and frontend (this distinction is drawn depending on whether the framework is for the presentation layer or the application/ logical layer.

### PRESENTATION LAYER / FRONT-END

### User interfaces

Languages: HTML, CSS, Javascript...

Frameworks: Bootstrap, Foundation 3, Grids Systems...

### APPLICATION LAYER / BACK-END

### Logic and operation of the website

Languages: PHP, PYTHON, RUBY, JAVA...

Frameworks: Symfony, Django, Ruby On Rails, Spring...

### DATA LAYER

### Data persistence on databases

Technologies: MySQL, PostgreSQL, NoSQL...

It's important to understand that frameworks are a conceptual notion: a pre-prepared standard kit from which to work. The concept of a framework can be applied to different processes carried out on the web: the programmer's layer which connects the database to the site content and uses PHP language, and the designer's layer, where that content must be presented in HTML documents with defined CSS style sheets so it can ultimately be viewed in a browser.

They can be backend (a set of files with libraries to access databases, template structures, session management) or frontend. We're going to focus on frontend frameworks.

## FRONT-END FRAMEWORKS (OR CSS FRAMEWORKS)

Frontend frameworks usually consist of a package made up of a structure of files and folders of standardized code (HTML, CSS, JS documents etc.)

The usual components are:

- CSS source code to create a grid: this allows the developer to position the different elements that make up the site design in a simple and versatile fashion.
- Typography style definitions for HTML elements.
- Solutions for cases of browser incompatibility so the site displays correctly in all browsers.
  - Creation of standard CSS classes which can be used to style advanced components of the user interface.



About responsive frameworks: Currently the rise of responsive web design techniques, which facilitate the development of websites that can adapt to various resolutions for different mobile and desktop devices, is leading to the emergence of responsive frameworks. That is, they solved the common problem of making a responsive site. These frameworks...to offer a responsive solution from the point of installation.

#### COMPLETE FRAMEWORKS

They usually offer complete frameworks with configurable features like styled-typography, sets of forms, buttons, icons and other reusable components built to provide navigation, alerts, popovers, and more, images frames, HTML templates, custom settings, etc.

#### **FOUNDATION**

An advanced responsive front-end framework. Foundation is built with Sass, a powerful CSS preprocessor, which allows us to much more quickly develop Foundation itself — and gives you new tools to quickly customize and build on top of Foundation.

### **BOOTSTRAP**

Sleek, intuitive, and powerful front-end framework for faster and easier web development. Built at Twitter by @mdo and @fat, Bootstrap utilizes LESS CSS, is compiled via Node, and is managed through GitHub to help nerds do awesome stuff on the web.

### SKELETON

A Beautiful Boilerplate for Responsive, Mobile-Friendly Development. Skeleton is a small collection of CSS files that can help you rapidly develop sites that look beautiful at any size, be it a 17" laptop screen or an iPhone.

Advantages of using frameworks

- · Speeds up the mock-up process
- · Clean and tidy code
- Solutions to common CSS problems
- Browser compatibility
- · Learn good practices
- Having a single procedure to resolve common problems makes maintaining various projects more straightforward.
- · Helpful in collaborative work