

Introduction to UI Frameworks

Kevin Bluer





Agenda

Agenda

- Introduction to UI Frameworks
- Skeleton, Reset, Normalize, Reboot, etc
- Hello, Skeleton!
- Grid Systems
- Introducing Bootstrap 3.x
- Further Reading

Goals

Goals

- Make you **love** frameworks!
- Understand the various types that are out there
- When to use (and perhaps when not to use)?





Introduction to Frameworks

What is a framework?

- Best thought of as “building blocks”
- Technically just some code you add to your project
- Typically open source
- Designed to make your life easier

Why use?

- They make your life easier (save time)
- Built upon tried and tested best practices
- Developers are often already familiar with them
- Typically well documented and supported



Why not?

- Code bloat (may offer features that you don't need)
- Updates can break your application
- Theoretical security risk



Framework Examples

Examples

- Utility (Reset, Normalize, Reboot, etc)
- Minimalist Web (Skeleton, etc)
- General Web (Bootstrap, Foundation, Material, etc)
- Rich Web (Kendo)
- Desktop (Photon, etc)
- Mobile (Ionic, Framework 7, etc)

Exercise

Take a Quick look

- Reset: <http://meyerweb.com/eric/tools/css/reset>
- Skeleton: <http://getskeleton.com>
- Foundation: <http://foundation.zurb.com>
- Photon: <http://photonkit.com>
- Kendo: <http://www.telerik.com/kendo-ui>
- Ionic: <http://ionicframework.com/docs/components>
- Framework 7: <http://www.idangero.us/framework7/>

Notes

- You don't need to know all of them (although you should be aware at the very least)
- Choosing the “right one” could make a big difference to a project
- Considerations
 - Features (and fit for project)
 - Team experience
 - Support (community or 3rd party)

Reset, Normalize, Reboot, Huh?

Reset, Normalize, Reboot, Huh?

- Even though there are “standards” set by the the W3C not all browser vendors (Google, Mozilla, Microsoft, etc) implement them consistently
- Exist to make all browsers behave consistently
- Depending on the framework you use it’s likely some form of resetting will already be included

Reset.css

- ◎ <http://meyerweb.com/eric/tools/css/reset/index.html>
- ◎ “The goal of a reset stylesheet is to reduce browser inconsistencies in things like default line heights, margins and font sizes of headings, and so on.”

Normalize.css

- ◎ <https://necolas.github.io/normalize.css/>
- ◎ “Normalize.css makes browsers render all elements more consistently and in line with modern standards. It precisely targets only the styles that need normalizing.”

Reboot.css

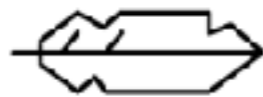
- <http://v4-alpha.getbootstrap.com/content/reboot/>
- “Part of Bootstrap’s job is to provide an elegant, consistent, and simple baseline to build upon. We use Reboot, a collection of element-specific CSS changes in a single file, to kickstart that.”



Hello, Skeleton

Hello, Skeleton

- <http://getskeleton.com/>
- “A dead simple, responsive boilerplate.”
- Features
 - ~400 lines & built with mobile in mind
 - Designed to be a starting point
 - Quick to start with zero compiling or installing



Hello, Skeleton

- Focuses on the following:
 - Grid System
 - Typography
 - Buttons
 - Forms
 - Lists
 - Tables
 - Media Queries

Let's Examine

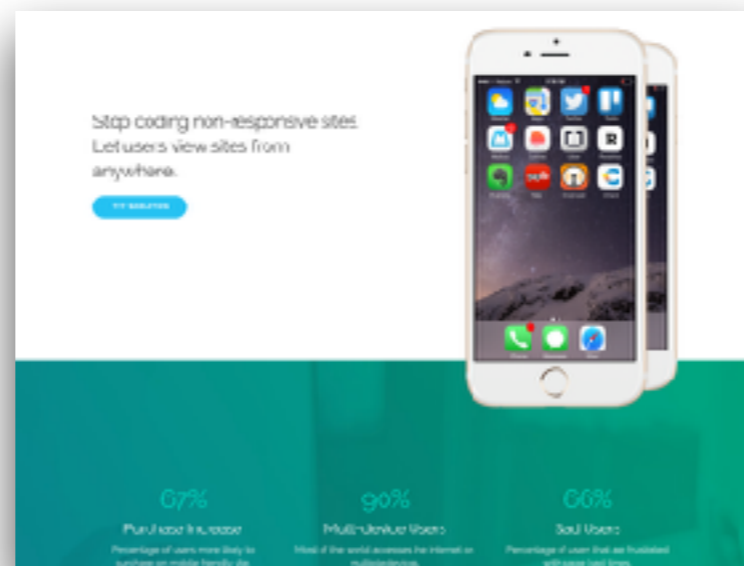
- <https://github.com/dhgh/Skeleton/blob/master/css/skeleton.css>
- Note the structure / organization
- It's also literally just a collection of the following
 - Rules
 - Classes
 - Media Query Placeholders

```
hr {  
  margin-top: 3rem;  
  margin-bottom: 3.5rem;  
  border-width: 0;  
  border-top: 1px solid #E1E1E1; }
```

Exercise #1

Replicate the Landing Page Example

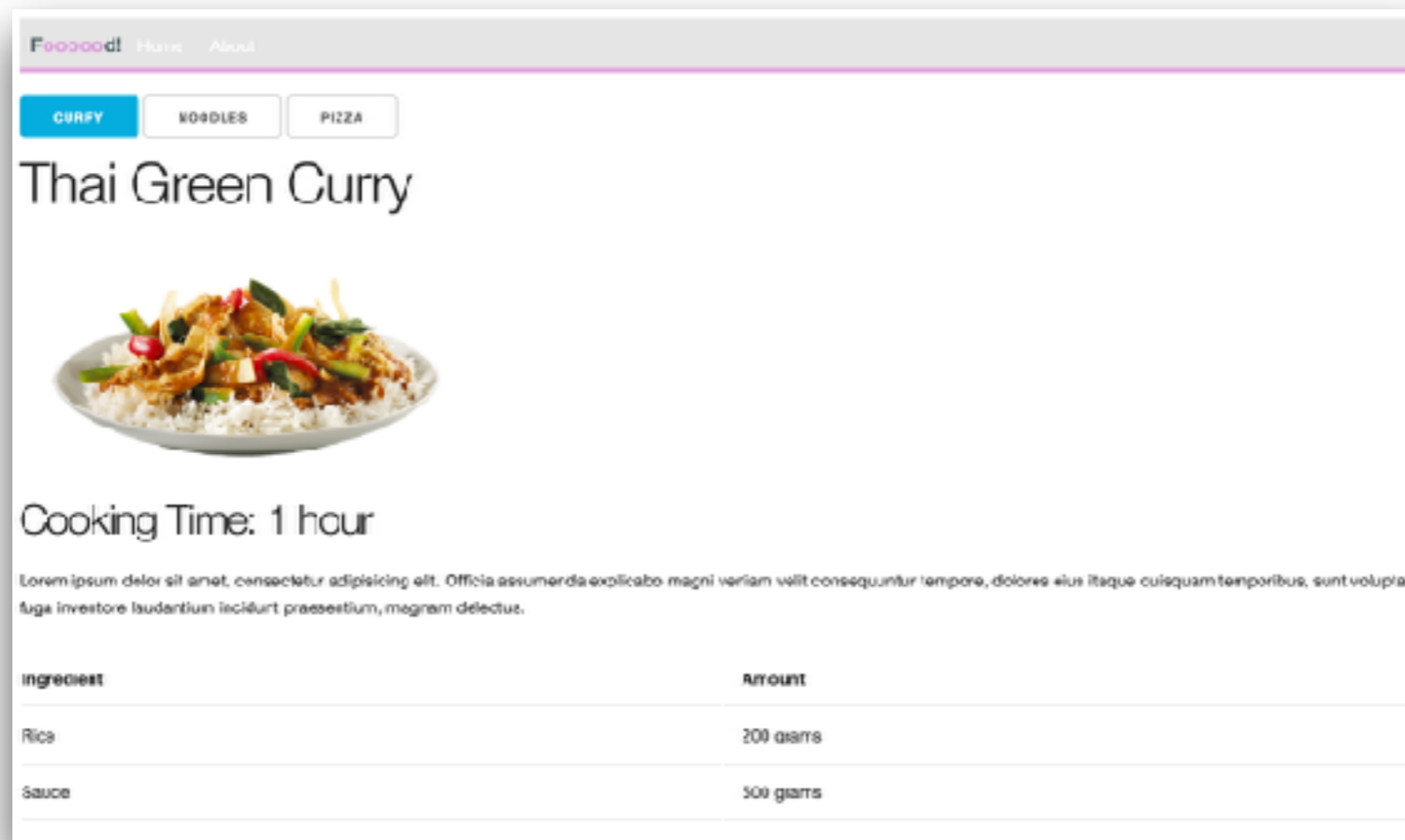
- Pull down everything from the repository on Github:
 - <https://github.com/dhg/Skeleton/>
- Replicate the following:
 - <http://getskeleton.com/examples/landing/>



Exercise #2

Extend Foood!

- Include Skeleton in your project
- Turn each photo into a small recipe / post



The screenshot shows a web application interface for a recipe. At the top, there is a navigation bar with the logo "Foood!" and links for "Home" and "About". Below the navigation bar, there are three buttons: "CURRY" (highlighted in blue), "NOODLES", and "PIZZA". The main content area displays the title "Thai Green Curry" above a photograph of the dish. Below the photo, it states "Cooking Time: 1 hour" and a paragraph of placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Officia assumenda explicabo magni veritatis consequuntur tempore, dolores eius itaque quisquam temporibus, sunt voluptate fuga investore laudantium iudicant praesentium, magnam delectus." At the bottom, there is a table with two columns: "Ingredient" and "Amount".

Ingredient	Amount
Rice	200 grams
Sauce	500 grams

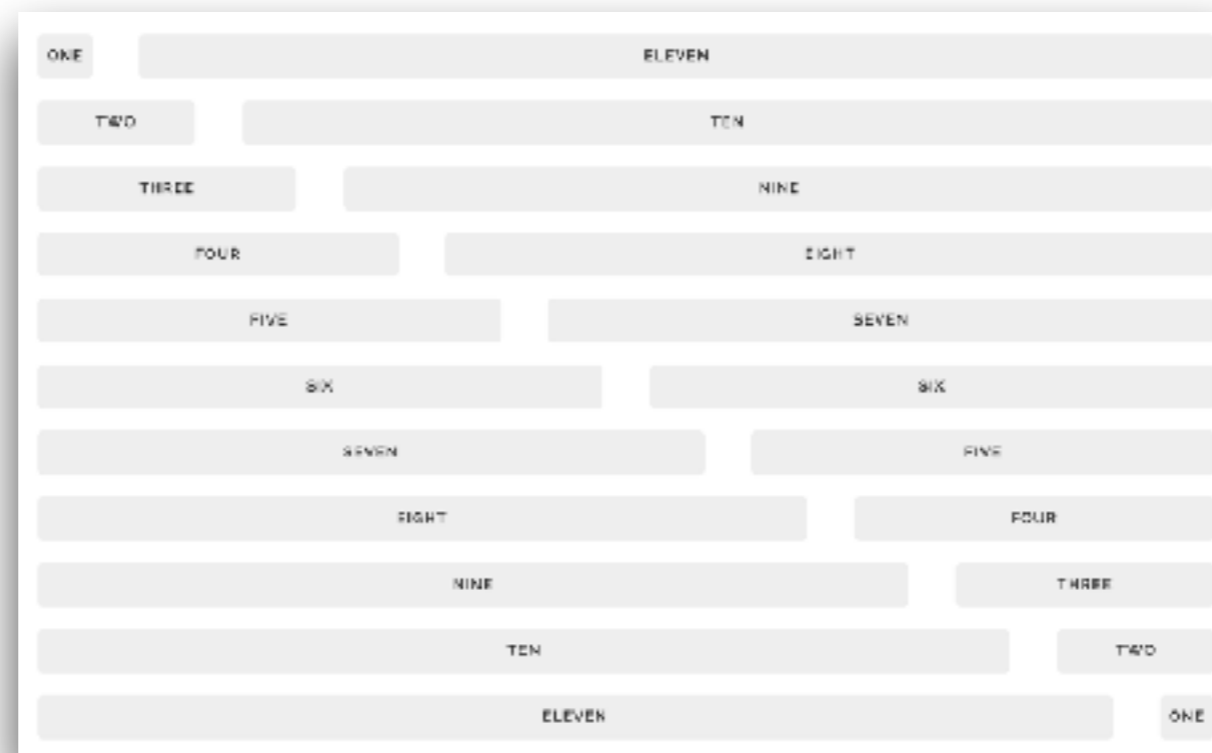
Extend Fooood!

- Leverage some of the following elements
 - Typography
 - Buttons
 - Lists
 - Tables
- Consider some semantic tags: nav, header, article
- Don't worry about the grid or media queries (yet)

Grid Systems

Grid Systems

- “Grid systems are used for creating page layouts through a series of rows and columns that house your content.”

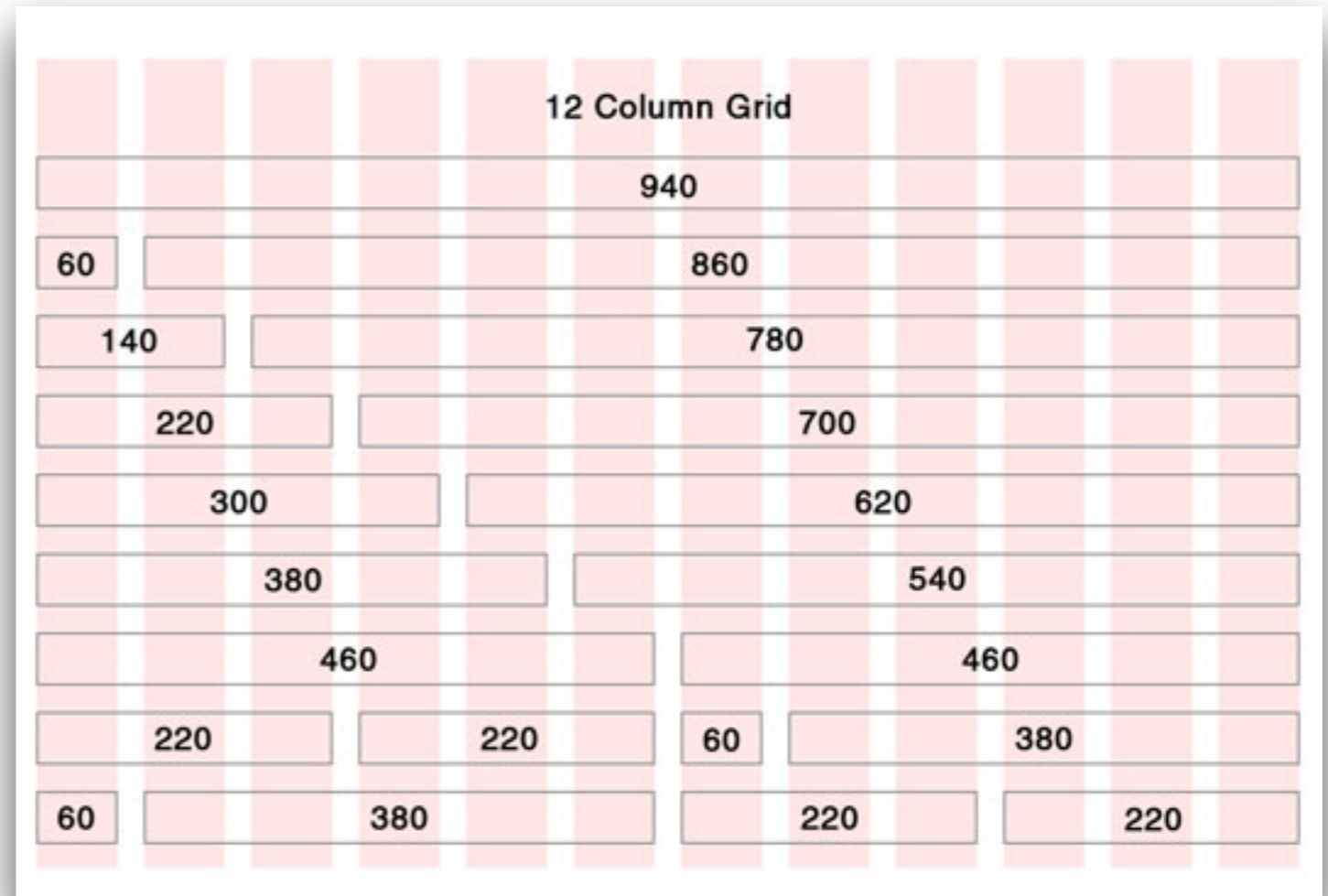


Why Grids?

- Grids establish a meter and rhythm
- Grids define and reflect proportion
- Grids, the rule of thirds, and the golden ratio
- Grids provide a foundation and balance
- Grid work with other key design principles

Grid System Implementations

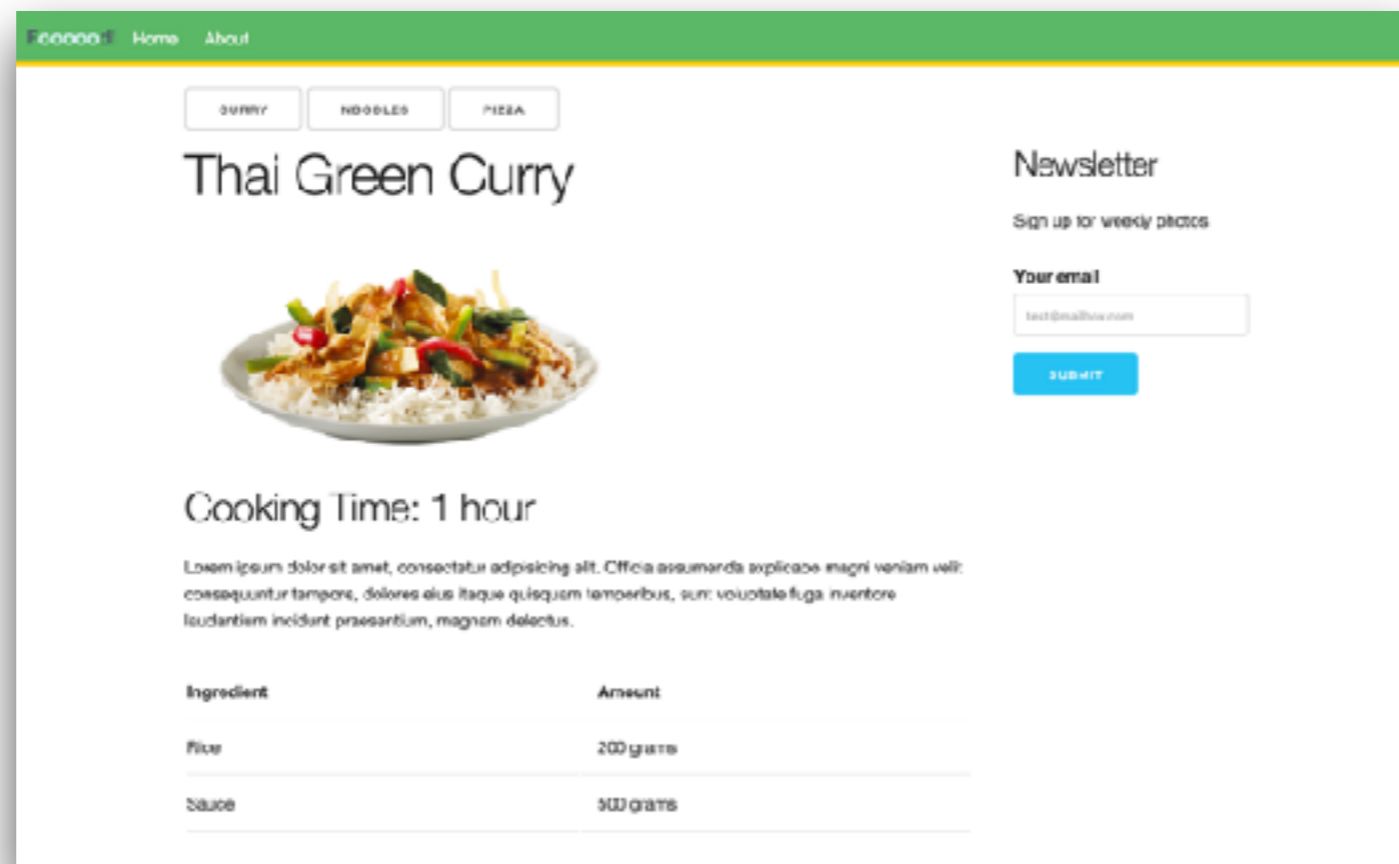
- Skeleton
- 960 Grid
- Bootstrap
- Foundation



Exercise

Use Skeleton's Grid

- Implement a two column layout
- Include a simple form





Introducing Bootstrap

Introduction to Bootstrap

- “Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.”



Introduction to Bootstrap

- <http://getbootstrap.com/getting-started/#examples>
- Review the examples...



Cover

A one-page template for building simple and beautiful home pages.



Carousel

Customize the navbar and carousel, then add some new components.



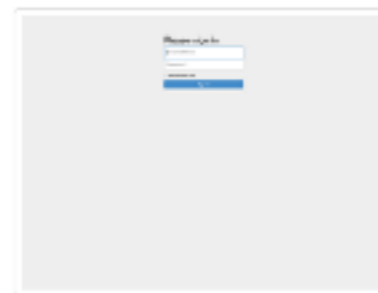
Blog

Simple two-column blog layout with custom navigation, header, and type.



Dashboard

Basic structure for an admin dashboard with fixed sidebar and navbar.



Sign-in page

Custom form layout and design for a simple sign in form.



Justified nav

Create a custom navbar with justified links. Heads up! *Not too Safari friendly.*

Further Reading

Further Reading

- Bootstrap Examples: <http://getbootstrap.com/getting-started/#examples>
- Designing With Grid-Based Approach: <https://www.smashingmagazine.com/2009/07/lessons-from-swiss-style-graphic-design/>
- The designer's guide to grid theory: <http://www.creativebloq.com/web-design/grid-theory-41411345>
- Should You Use Bootstrap or Foundation? <http://blog.teamtreehouse.com/use-bootstrap-or-foundation>
- Bootstrap's Grid: <http://getbootstrap.com/css/#grid>