Design System

- Organization
- Maintainability
- Responsiveness
- Scalability

Design Patterns And Organization

- each pattern describes a problem that occurs in our environment
- **pattern structures**
  - pattern type - 00-organisms
  - pattern subType - 01-global
  - pattern - 00-header
- **atoms** - building blocks of the universe * use to define general styles
  - inputs
  - headings
  - buttons
  - labels
  - etc.
- **molecules** - groups of elements (atoms) that function together as a unit - base for common patterns
  - search form "molecule"
    - input,
    - label, and
    - button
- **organisms** - groups of molecules (and possibly atoms) joined together to create distinct interface elements

    - master header
        - logo,
        - nav items, and
        - search form
- **templates** - starting point for client engagement to combine atoms, molecules, and organisms into page layouts
    - home page
        - master header,
        - navigation,
        - body copy, and
        - master footer
- **pages** - final point before moving into production - use to provide client with accurate representation of page layout with real content

Code Convention And Element Definition

The aim of a component/template/object-oriented architecture is to be able to develop a limited number of reusable components that can contain a range of different content types.

HTML Semantics

Most semantics are related to aspects of the nature of the existing or expected content (H1 - H6, email value type attribute).

- always use lowercase tag and attribute names.
- write one discrete element per line.
- use one additional level of indentation for each nested element.
- always include closing tags.

Attribute Order

- class
- id
- data-*

```
<a class="[value]" id="[value]" data-name="[value]" href="[url]">[text]</a>
```

Class Name Semantics

Whatever names are being used: they should have meaning, they should have purpose.

- derive class name semantics from repeating structural and functional patterns in a design. The most reusable components are those with class names that are independent of the content.
- don't be afraid to include additional HTML elements if they help create more robust, flexible, and reusable components.

Class Naming Convention

- component
- module
- attribute
- state

```
.component {}
.component-module {}
.component_attribute {}
.component_is-focused {}
```

Naming UI Components

Provide more specific or meaningful naming alongside the generic class, particularly when several generic classes come together.

```
class="tabbed-nav" data-ui-component="Main Nav"
```

Components, Modules, And Elements

Structure

- grid
- block grid
- media queries
    - small
    - medium
    - large
    - x-large
    - xx-large

Navigation

- off-canvas menu
- horizontal bar navigation
- icon-bar navigation
- vertical side navigation
- fixed scroll-spy navigation
- section menu navigation
- breadcrumbs
- pagination

Media

- slider
- gallery
- thumbnails
- video

- lightbox gallery

Forms

- forms
    - inline form
    - horizontal form
    - controls
    - form states
    - sizing
    - help text
- input groups
    - basic
    - sizing
    - checkboxes and radio buttons
    - button add-on
    - button with drop down
    - segmented buttons
- switches
- validations
- range sliders

Buttons

- standard button
- button groups
    - styled
    - stacked
    - button bar
    - advanced
- split buttons
- drop-down buttons

- vertical buttons
- nested buttons
- button options
- button sizes
- button states
- accessibility

Typography

- headers
- sub-headers
- paragraphs
- links
- lists
- quotes
- addresses
- print styles

Prompts

- modals
  - basic
  - intermediate
  - advanced
- alerts
- panels
- tooltips
- tour

Content

- icons
- drop-downs

- tables
- pricing tables
- progress bars
- accordions
- tabs
- labels
- badges
- show/hide
  - screen size
  - orientation
  - screen-readers
  - skip links

Utility

- utility classes
  - float left / float right / clear
  - element border radius
  - element rounded corners
  - text align
    - left
    - right
    - center
    - justified
  - hide