

# Agile Software Development

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Produced  
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# Semantic HTML + UI

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# HTML5



## HTML 5.1 Nightly

A vocabulary and associated APIs for HTML and XHTML

Editor's Draft 29 November 2013

**Latest Published Version:**

<http://www.w3.org/TR/html51/>

Review the spec

Section 4 Only

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  - 4.2 Document metadata
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    - 4.2.2 The `title` element
    - 4.2.3 The `base` element
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    - 4.5.12 The `code` element
    - 4.5.13 The `var` element

<i>metadata</i>	• <html> <head>
<i>sections</i>	• <body> <section><article><nav><aside> <header><footer><h1><h2><h3>
<i>grouping</i>	• <p><ul> <ol> <li> <div>
<i>links</i>	• <a>
<i>embedding</i>	• <img>
<i>forms</i>	• <form>
<i>tabular data</i>	• <table>

element

attribute

• + attribute syntax:

```

<article class="ten wide column">
  <h1 class="ui header"> Sign up for Pacemaker </h1>
  <p> No Bitcoins accepted! </p>
</article>

```

# The Need for Semantic Elements

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- Give content on the page meaning and structure
- Semantics portray the value of content on a page, and are not just its style

- Semantic markup can be interpreted by tools for the visually impaired
- Search Engines can use semantic markup to better categorise and classify content

- Semantic markup can make site maintenance easier as new developers can quickly grasp the site structure
- Updating / Restyling may be streamlined by using semantic elements

# The HTML5 Semantic Elements

---

<header>

<nav>

<section>

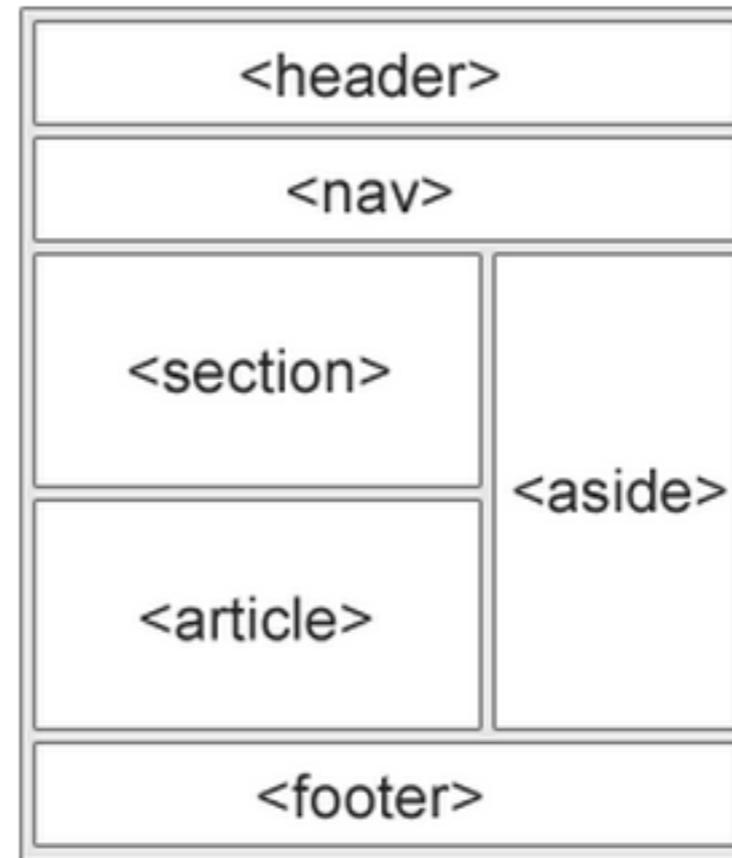
<article>

<aside>

<figcaption>

<figure>

<footer>



# <nav>

---

```
<nav>
  <h1>Navigation</h1>
  <ul>
    <li><a href="articles.html">Index of all articles</a></li>
    <li><a href="today.html">Things sheeple need to wake up for today</a></li>
    <li><a href="successes.html">Sheeple we have managed to wake</a></li>
  </ul>
</nav>
```

*"The nav element represents a section of a page that links to other pages or to parts within the page: a section with navigation links."*

# <article>

```
<article itemscope itemtype="http://schema.org/BlogPosting">
  <header>
    <h1 itemprop="headline">The Very First Rule of Life</h1>
    <p><time itemprop="datePublished" datetime="2009-10-09">3 days ago</time></p>
    <link itemprop="url" href="?comments=0">
  </header>
  <p>If there's a microphone anywhere near you, assume it's hot and
    sending whatever you're saying to the world. Seriously.</p>
  <p>...</p>
  <footer>
    <a itemprop="discussionUrl" href="?comments=1">Show comments...</a>
  </footer>
</article>
```

*"The article element represents a complete, or self-contained, composition in a document, page, application, or site and that is, in principle, independently distributable or reusable, e.g. in syndication. This could be a forum post, a magazine or newspaper article, a blog entry, a user-submitted comment, an interactive widget or gadget, or any other independent item of content."*

# <section>

---

*"The section element represents a generic section of a document or application. A section, in this context, is a thematic grouping of content. The theme of each section should be identified, typically by including a heading (h1-h6 element) as a child of the section element."*

```
<article>
  <header>
    <h2>Apples</h2>
    <p>Tasty, delicious fruit!</p>
  </header>
  <p>The apple is the pomaceous fruit of the apple tree.</p>
  <section>
    <h3>Red Delicious</h3>
    <p>These bright red apples are the most common found in many
      supermarkets.</p>
  </section>
  <section>
    <h3>Granny Smith</h3>
    <p>These juicy, green apples make a great filling for apple
      pies.</p>
  </section>
</article>
```

# <aside>

---

*"The aside element represents a section of a page that consists of content that is tangentially related to the content around the aside element, and which could be considered separate from that content. Such sections are often represented as sidebars in printed typography."*

```
<aside>  
  <h1>Switzerland</h1>  
  <p>Switzerland, a land-locked country in the middle of  
    geographic Europe, has not joined the geopolitical  
    European Union, though it is a signatory to a number  
    of European treaties.</p>  
</aside>
```

# <header> & <footer>

---

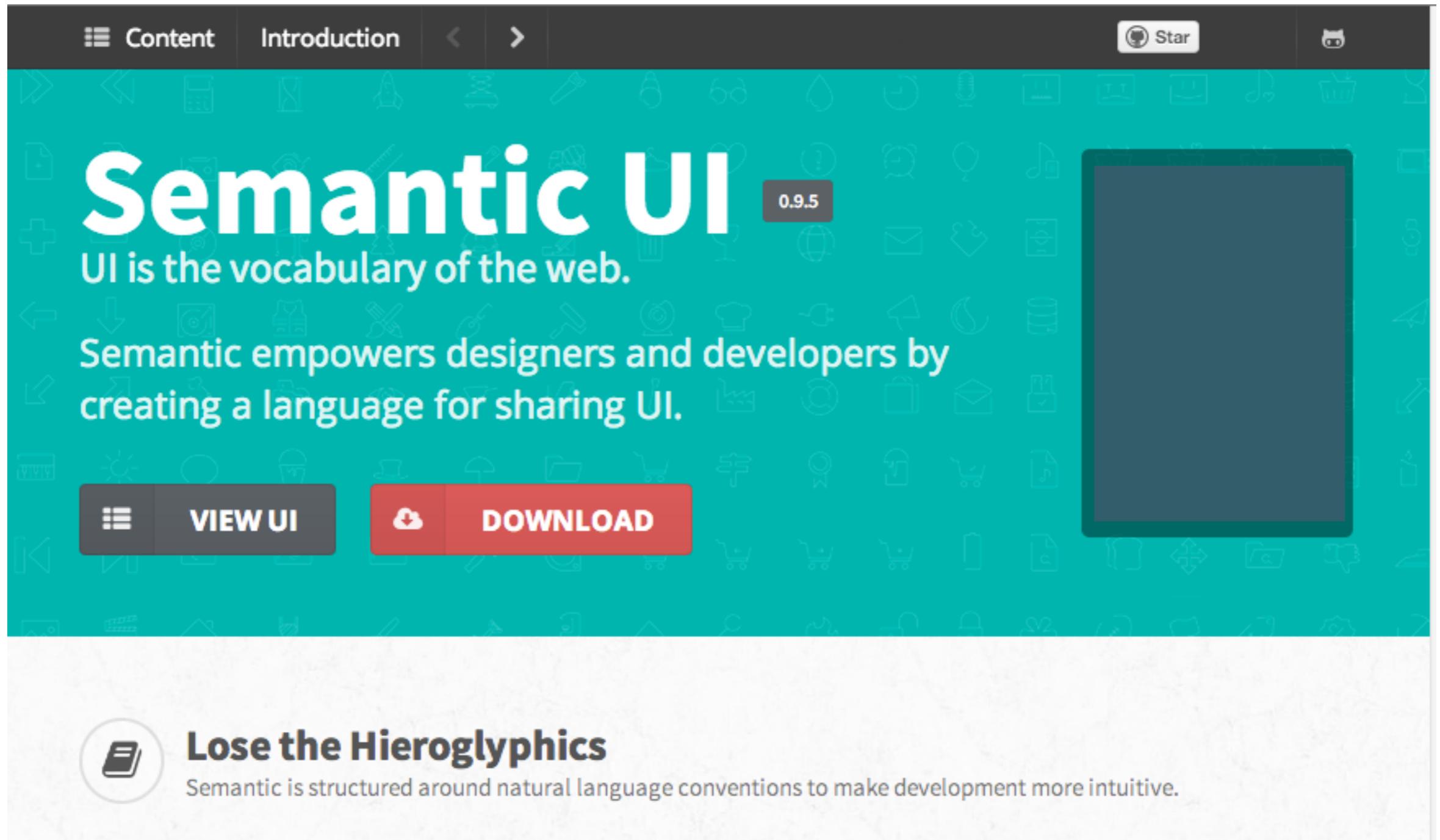
*"The header element represents introductory content for its nearest ancestor sectioning content or sectioning root element. A header typically contains a group of introductory or navigational aids."*

*"The footer element represents a footer for its nearest ancestor sectioning content or sectioning root element. A footer typically contains information about its section such as who wrote it, links to related documents, copyright data, and the like.."*

```
<header>
  <p>Welcome to...</p>
  <h1>Voidwars!</h1>
</header>

<footer>
  <a href="..">Back to index...</a>
</footer>
```

# Semantic UI



The image shows a screenshot of the Semantic UI website. The top navigation bar is dark grey with a hamburger menu icon, the text "Content", "Introduction", and navigation arrows. On the right, there is a "Star" button with a GitHub icon and a GitHub logo. The main content area has a teal background with a pattern of small white icons. The title "Semantic UI" is in large white font, with a version number "0.9.5" in a dark grey box to its right. Below the title is the tagline "UI is the vocabulary of the web." and a paragraph: "Semantic empowers designers and developers by creating a language for sharing UI." There are two buttons: a dark grey "VIEW UI" button with a hamburger menu icon, and a red "DOWNLOAD" button with a download icon. To the right of the text is a dark grey rectangular placeholder. Below the teal section is a white section with a circular icon of a document and the heading "Lose the Hieroglyphics". The text below the heading reads: "Semantic is structured around natural language conventions to make development more intuitive."

Content Introduction < > Star

# Semantic UI

 0.9.5

UI is the vocabulary of the web.

Semantic empowers designers and developers by creating a language for sharing UI.

VIEW UI DOWNLOAD

 **Lose the Hieroglyphics**  
Semantic is structured around natural language conventions to make development more intuitive.

<http://semantic-ui.com/>

# Defining Definitions

Definitions in semantic are groups of css, fonts, images, and javascript which make up a single element. Unlike other javascript libraries, semantic UI elements are stand-alone and only require their own assets to function correctly.

## Definition Types

Semantic has five different ui definitions. These are useful patterns for describing re-usable parts of a website.

<b>UI Element</b>	A basic building block of a website, exists alone or in homogenous groups
<b>UI Collection</b>	A heterogeneous group of several elements which can usually be found together.
<b>UI View</b>	A way to present common website content like comments, activity feeds
<b>UI Module</b>	An element where its behavior is an essential part of its definition
<b>UI Behavior</b>	A set of free-standing actions not specifically tied to an element

# Definition Sections

---

- All UI components of a single type are defined similarly

<b>All UI</b>	<p><b>Types</b> Defines mutually exclusive types which each may have their own html</p> <hr/> <p><b>States</b> Defines element states like disabled, hovered, pressed down</p> <hr/> <p><b>Variations</b> Defines changes to an element which are not mutually exclusive and can be used together</p>
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# Elements & Collections

---

<b>Elements</b>	<p><b>Group</b> An element can optionally define how attributes can be shared across a group</p> <hr/> <p> <b>UI Button</b></p>
<b>Collections</b>	<p><b>Content</b> A collection can define elements which might be found inside</p> <hr/> <p><b>States</b> A collection may define states for content elements or itself</p> <hr/> <p><b>Variations</b> A collection may define variations for content elements or itself</p> <hr/> <p> <b>UI Form</b></p>

# Views, Modules & Behaviours

<b>Views</b>	<p><b>Content</b> A view may define elements which can exist inside of the view</p> <hr/> <p><b>States</b> A view may define states for content elements or itself</p> <hr/> <p><b>Variations</b> A view may define variations for a content elements or itself</p> <hr/> <p> <b>UI Item</b></p>
<b>Modules &amp; Behaviors</b>	<p><b>Behavior</b> A module will define a set of <b>behaviors</b> which can be used as an API</p> <hr/> <p><b>Settings</b> A <b>settings object</b> which can alter the default behavior when instantiating a module</p> <hr/> <p><b>Examples</b> A list of examples to showcase the variations in behavior of a module</p> <hr/> <p> <b>UI Dropdown</b></p>

# Types Catalogue

---

**12**

UI Elements

Button

Divider

Header

Icon

Image

Input

Label

Loader

Progress

Reveal

Segment

Step

**6**

UI Collections

Breadcrumb

Form

Grid

Menu

Message

Table

**4**

UI Views

Comment

Feed

Item

List

**11**

UI Modules

Accordion

Checkbox

Dimmer

Dropdown

Modal

Popup

Rating

Shape

Sidebar

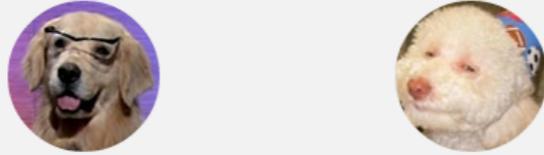
Transition

Validate Form

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante.

### Segment

A segment is used to create a grouping of related content.



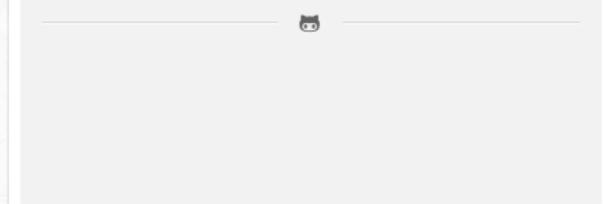
### Image

An image is a graphic representation of something



### Button

A button indicates a possible user action.



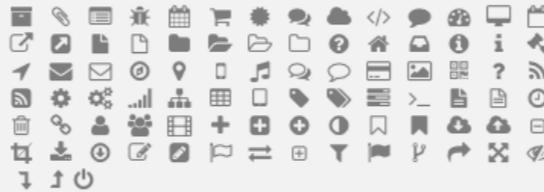
### Divider

A divider visually segments content into separate groups

First **Second** Thir Last

### Step

Steps show the current activity in a series of steps.



### Icon

An icon is a glyph used to represent another concept more simply

### Section 2

The second section of the website

### Header

Headers provide a short summary of content



### Progress Bar

A progress bar displays progress on a task

DOG

HTML

### Label

Labels give descriptions to sections of content.

# Elements

# Collections

Food / Fruit / Apples

Food > Fruit > Apples

## Breadcrumb

A breadcrumb is a menu to show the location of the current section in relation to other sections.

Name

Name

E-mail

E-mail

## Form

A form is used to solicit a user response

1

2

3

## Grid

A grid helps harmonize negative space in a layout

Friends

Messages

Profile

Friends

Messages

Profile

## Menu

A menu organizes related links

**We're sorry we can't process your idea just yet**

Please enter your name

## Message

Messages alert a user to something important.

Name

Status

John

Approved

John

Unconfirmed

Sally

Denied

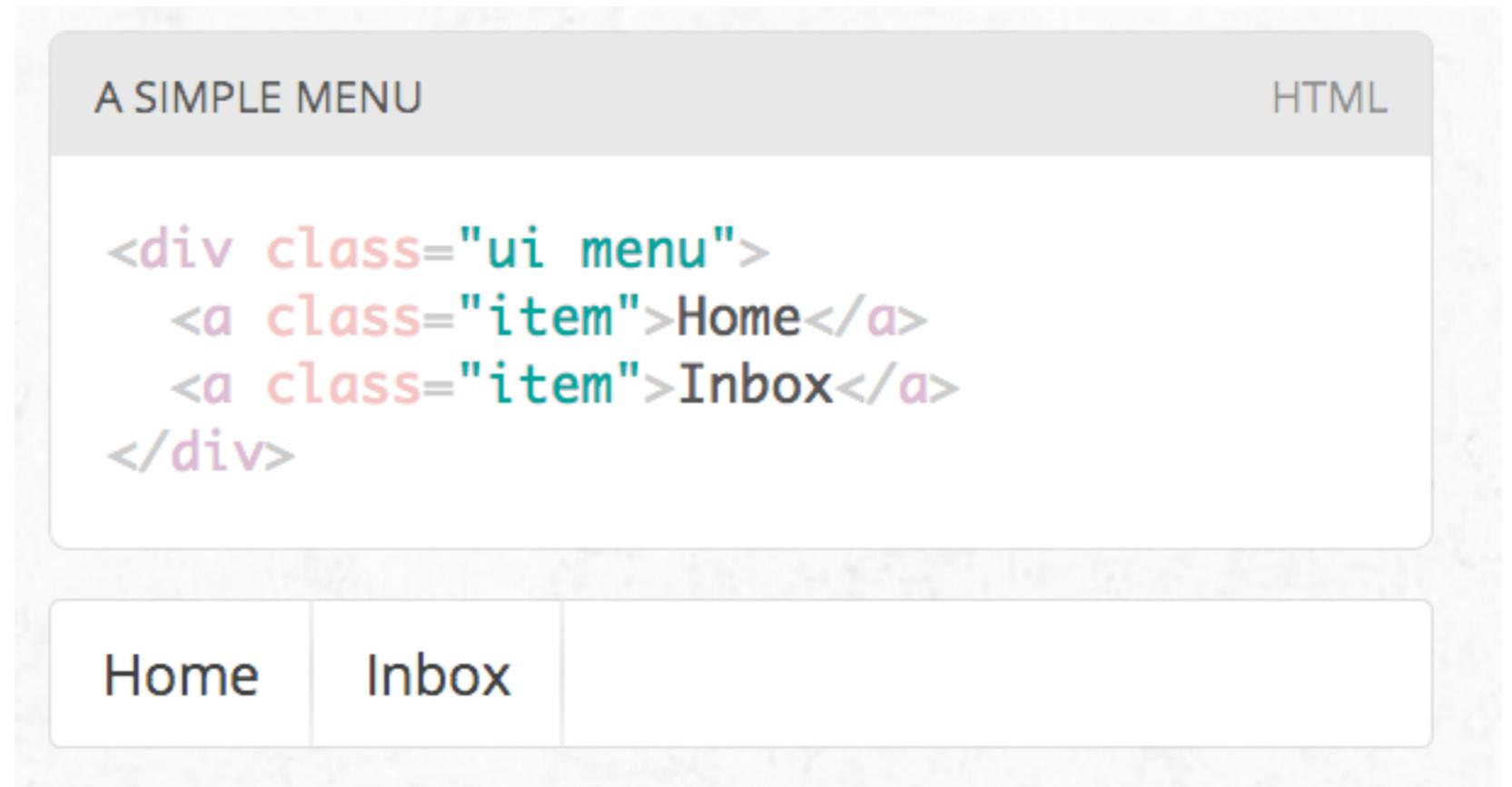
## Table

A table collects related data into rows of content

# Interfacing Carefully

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- UI definitions in Semantic are given the class name ui.
- This is to help tell the difference between ui elements and parts of the definition of an element.
- This means any element with the class name UI has a corresponding UI definition.



The image shows a code editor window titled "A SIMPLE MENU" with "HTML" in the top right corner. The code editor contains the following HTML code:

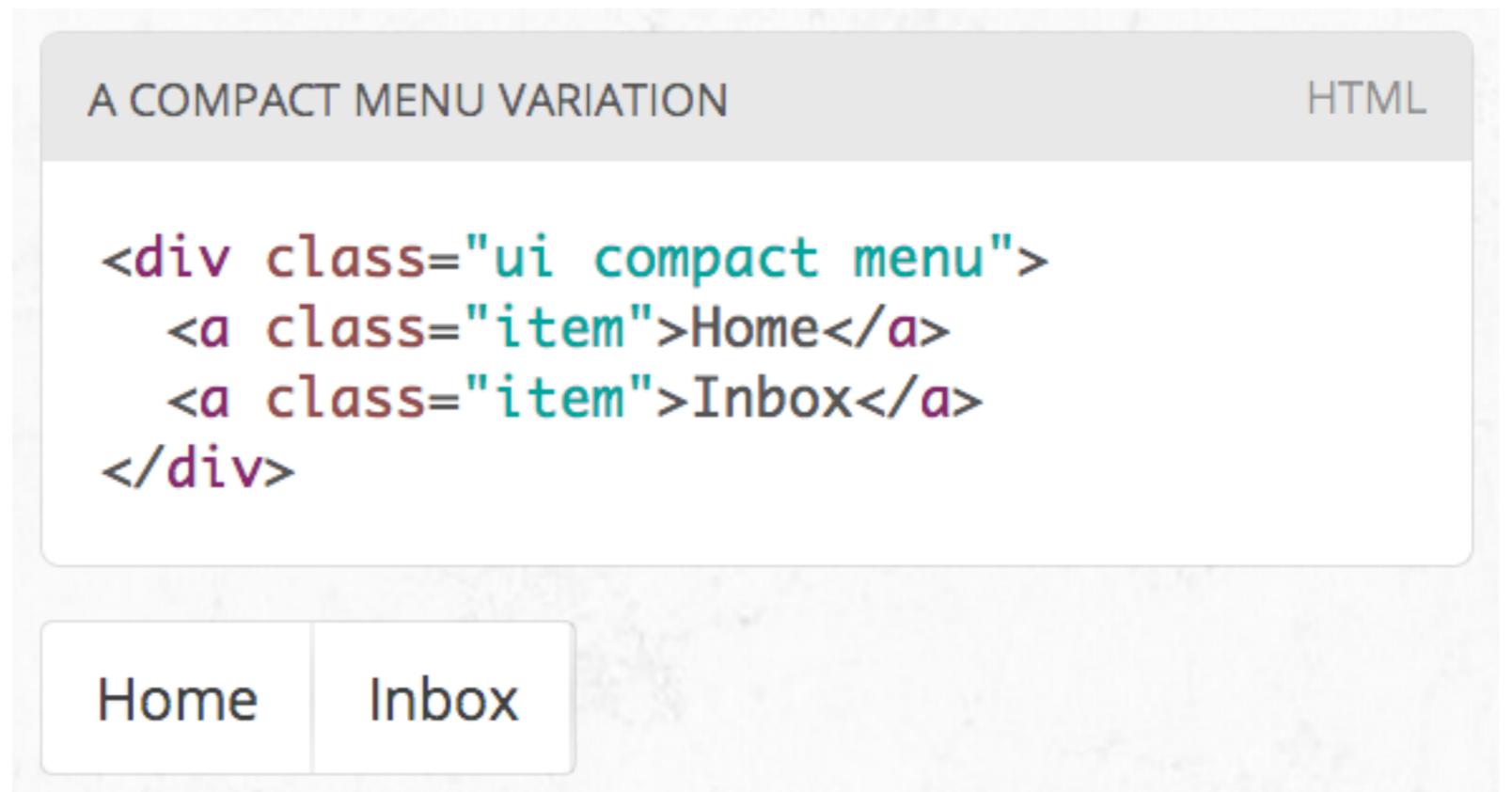
```
<div class="ui menu">  
  <a class="item">Home</a>  
  <a class="item">Inbox</a>  
</div>
```

Below the code editor, the rendered output is shown as a horizontal menu with two items: "Home" and "Inbox".

# Changing an Element

---

- Class names in Semantic always use single english words.
- If a class name is an adjective it is either a type of element or variation of an element.
- CSS definitions always define adjectives in the context of a noun. In this way class names cannot pollute the namespace.



A COMPACT MENU VARIATION HTML

```
<div class="ui compact menu">  
  <a class="item">Home</a>  
  <a class="item">Inbox</a>  
</div>
```

Home    Inbox

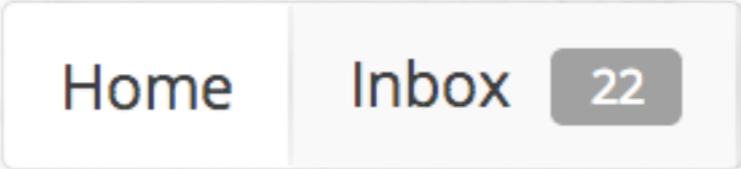
# Combining an Element

---

- All UI definitions in semantic are stand-alone, and do not require other components to function.
- However, components can choose to have optional couplings with other components.
- For example you might want to include a badge inside a menu. A label inside of a menu will automatically function as a badge

USING A UI LABEL INSIDE A UI MENU HTML

```
<div class="ui compact menu">
  <a class="item">Home</a>
  <a class="item">
    Inbox
    <div class="ui label">22</div>
  </a>
</div>
```



# Types / Variations

- A ui definition in Semantic usually contains a list of mutually exclusive variations on an element design.
- A type is designated by an additional class name on a UI element

TYPES OF UI BUTTON HTML

```
<div class="ui labeled icon button">
  Download <i class="download icon"></i>
</div>
<div class="ui icon button">
  <i class="download icon"></i>
</div>
<div class="ui button">
  Download
</div>
<div class="ui facebook button">
  <i class="facebook icon"></i>
  Facebook
</div>
```



# Types / Content

- Types may require different html structures to work correctly.
- For example, an icon menu might expect different content like icons glyphs instead of text to be formatted correctly

```
ICON MENU TYPE HTML
```

```
<div class="ui icon menu">  
  <a class="item">  
    <i class="mail icon"></i>  
  </a>  
  <a class="item">  
    <i class="lab icon"></i>  
  </a>  
  <a class="item">  
    <i class="star icon"></i>  
  </a>  
</div>
```



# Types / HTML Differences

- Types may also each require slightly different html.
- For example, a tiered menu needs html specified for a sub menu to display itself correctly

TIERED MENU TYPE HTML

```
<div class="ui tiered menu">
  <div class="menu">
    <div class="active item">
      <i class="home icon"></i>
      Home
    </div>
    <a class="item">
      <i class="mail icon"></i>
      Mail
      <span class="ui label">22</span>
    </a>
  </div>
  <div class="sub menu">
    <div class="active item">Activity</div>
    <a class="item">Profile</a>
  </div>
</div>
```

 Home  Mail 22

Activity Profile

# Variations

---

- A variation alters the design of an element but is not mutually exclusive.
- Variations can be stacked together, or be used along with altering an element's type.
- For example, having wide menus that take up the full width of its parent may sometimes be overwhelming. You can use the compact variation of a menu to alter its format to only take up the necessary space.

```
<div class="ui compact tiered menu">
```

```
  ...  
</div>
```

 Home

 Mail 22

Activity

Profile

# Intersecting Variations

---

- The definition for the variation red contains css specifically for describing the intersection of both red and inverted.

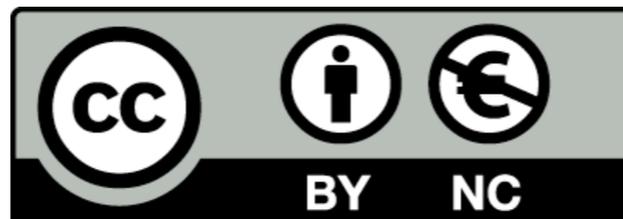
```
<div class="ui red tiered menu">  
  ...  
</div>
```

 Home

 Mail 22

Activity

Profile



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