Semantic UI

Getting Started, Containers & Segments

CSS frameworks

From Wikipedia, the free encyclopedia

CSS frameworks are pre-prepared software frameworks that are meant to allow for easier, more standards-compliant web design using the Cascading Style Sheets language. Most of these frameworks contain at least a grid. More functional frameworks also come with more features and additional JavaScript based functions, but are mostly design oriented and unobtrusive. This differentiates these from functional and full JavaScript frameworks.

Some notable and widely used examples are Bootstrap or Foundation.

CSS frameworks offer different modules and tools:

- reset style sheet
- grid especially for responsive web design
- web typography
- set of icons in sprites or icon fonts
- styling for tooltips, buttons, elements of forms
- parts of graphical user interfaces like accordion, tabs, slideshow or modal windows (Lightbox)
- equalizer to create equal height content
- often used css helper classes (*left*, *hide*)

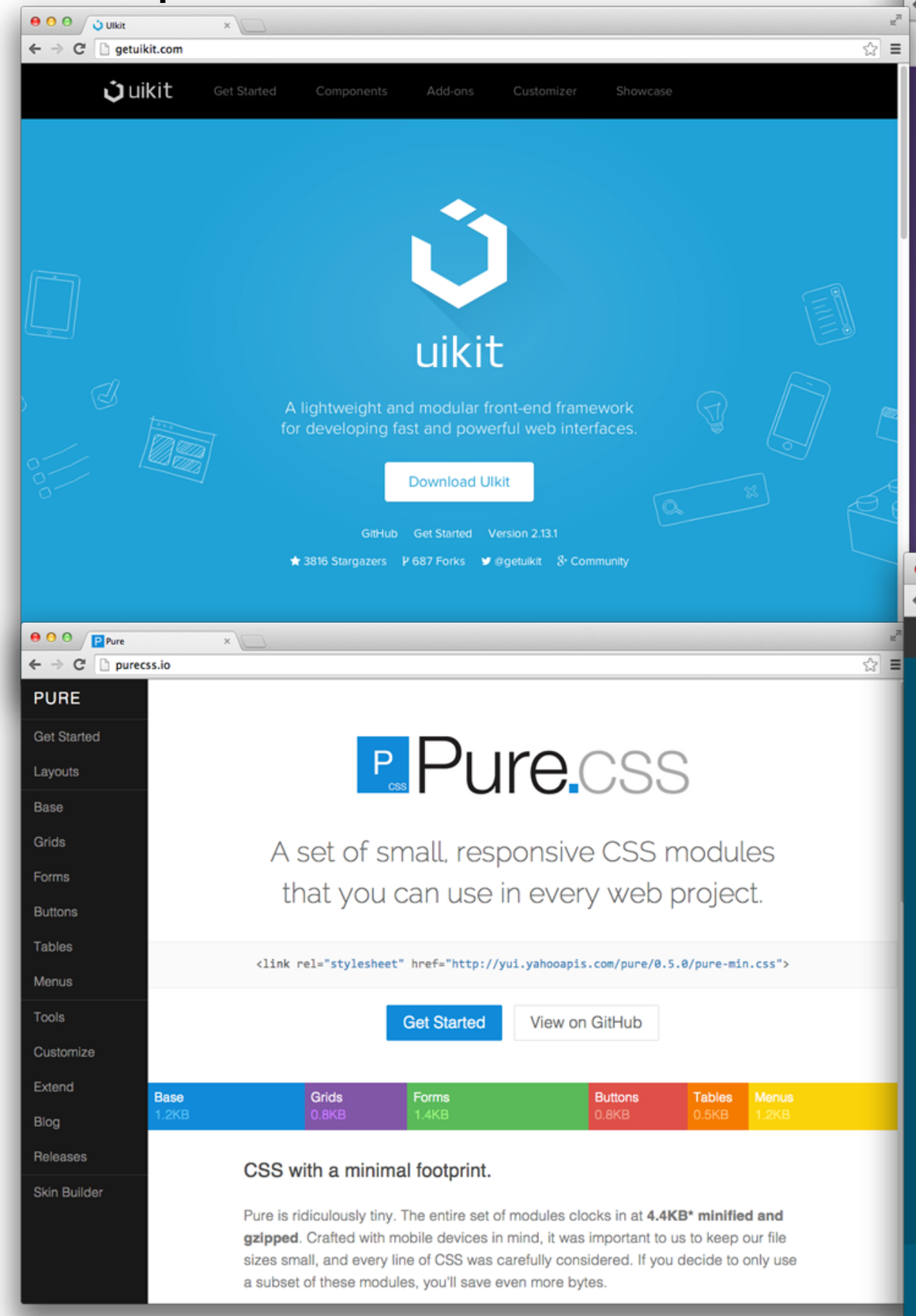
What is a CSS Framework?

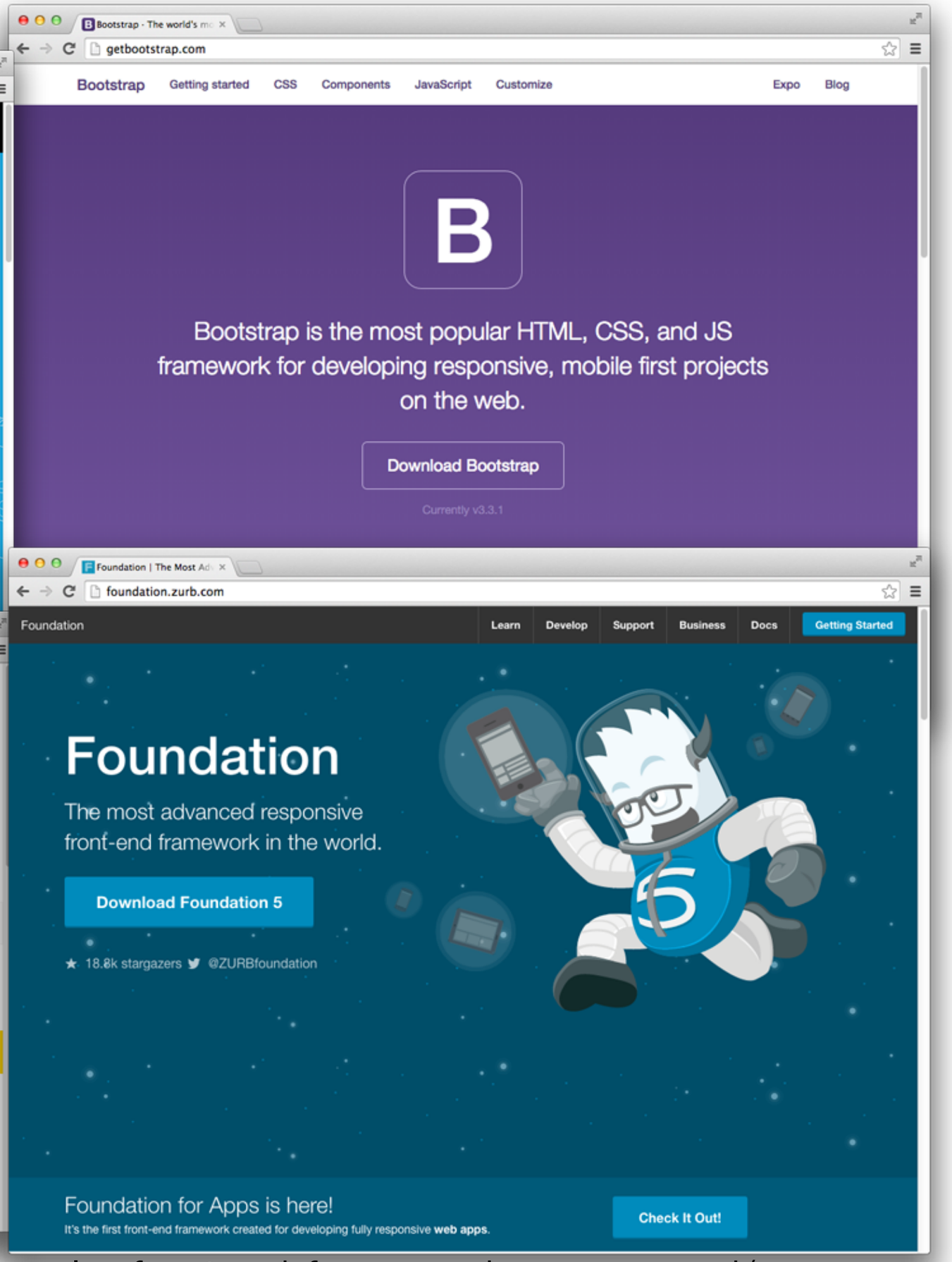
“framework is defined as a package made up of a structure of files and folders of standardized code (HTML, CSS, JS etc.) which can be used to support the development of websites, as a basis to start building a site.”

“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"

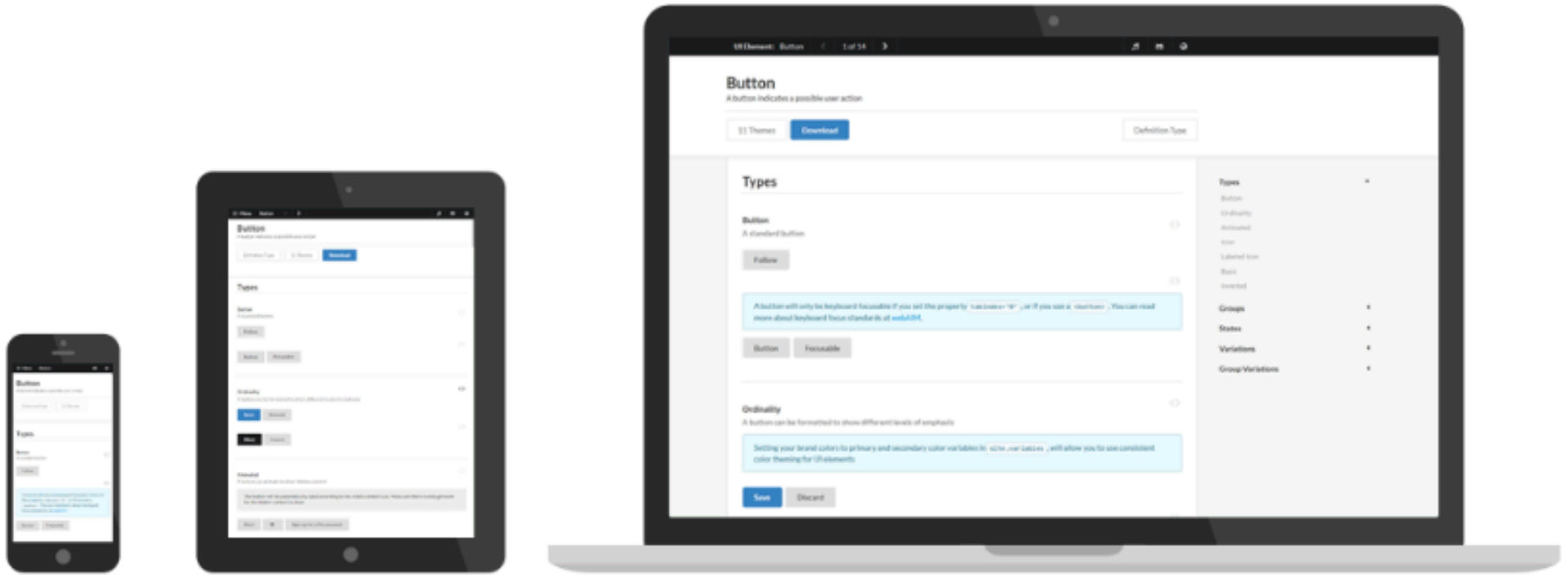
http://www.awwwards.com/what-are-frameworks-22-best-responsive-css-frameworks-for-web-design.html

Popular Frameworks





http://www.sitepoint.com/5-most-popular-frontend-frameworks-compared/



Design Beautiful Websites Quicker

Semantic is a development framework that helps create beautiful, responsive layouts using human-friendly HTML.

Concise HTML

Semantic UI treats words and classes as exchangeable concepts.

Classes use syntax from natural languages like noun/modifier relationships, word order, and plurality to link concepts intuitively.

Get the same benefits as BEM or SMACSS, but without the tedium.

```
<div class="ui three buttons">
  <button class="ui active button">One</button>
  <button class="ui button">Two</button>
  <button class="ui button">Three</button>
</div>
```

One | Two | Three

Semantic UI Starter

- Semantic css defines a large number of classes
- Your elements take on Semantic-UI styles by adopting specific classes
- All classes are preceded by “ui” to mark them as part of the framework

class =“ui container”

class =“ui segment”

class=“ui header”

class=“ui image”

class =“ui grid”

class=“ui row”

class=“ui column”

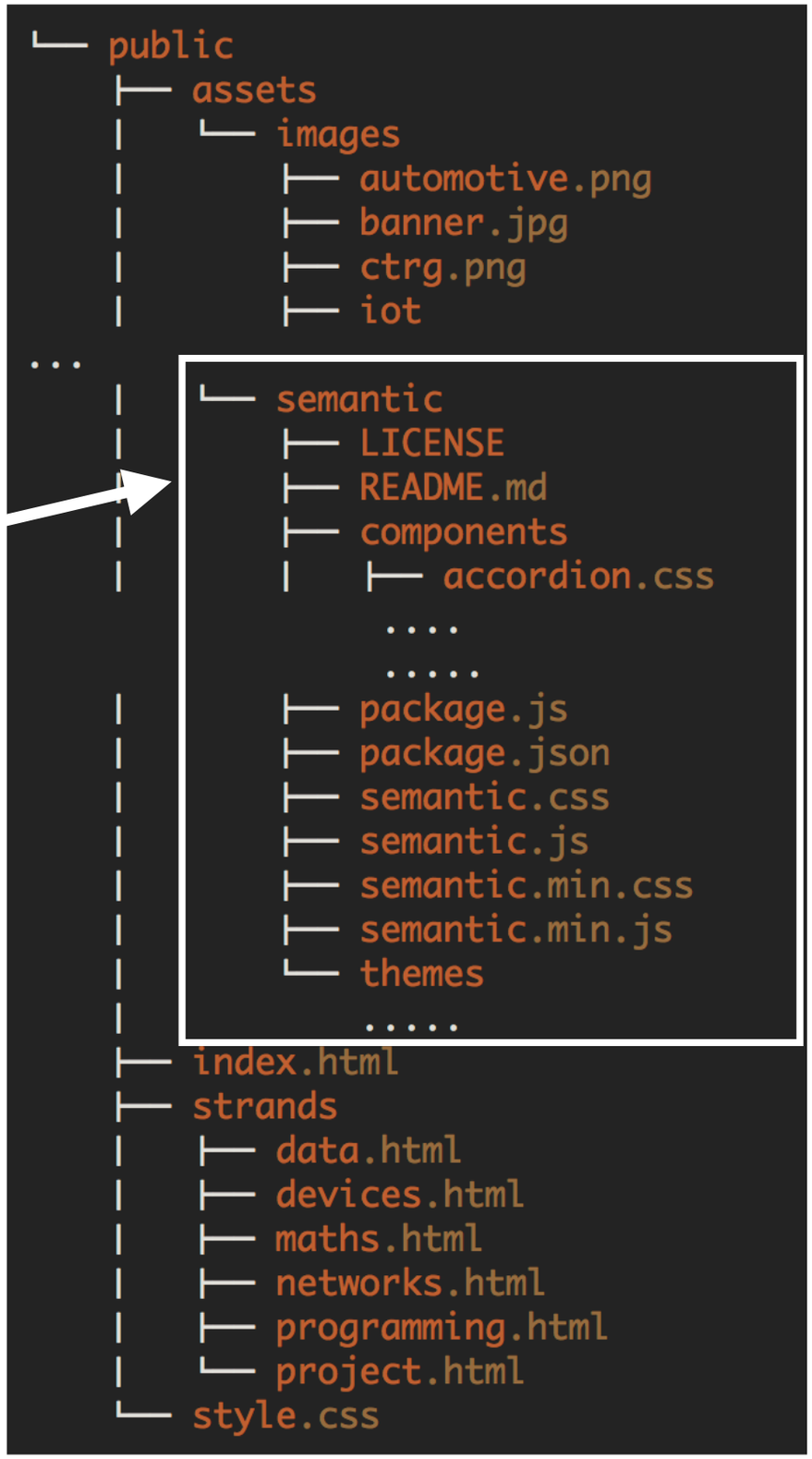
Typical Project Structure

- public
  - assets folder
  - includes folder
  - other content folder(s)
  - index.html
  - style.css

```
└── public
    ├── assets
    |   └── images
    |       ├── automotive.png
    |       ├── banner.jpg
    |       ├── ctrg.png
    |       ├── iot
...
    |   └── semantic
    |       ├── LICENSE
    |       ├── README.md
    |       ├── components
    |       |   ├── accordion.css
                ....
                .....
    |       ├── package.js
    |       ├── package.json
    |       ├── semantic.css
    |       ├── semantic.js
    |       ├── semantic.min.css
    |       ├── semantic.min.js
    |       └── themes
    |               .....
    ├── index.html
    ├── strands
    |   ├── data.html
    |   ├── devices.html
    |   ├── maths.html
    |   ├── networks.html
    |   ├── programming.html
    |   └── project.html
    └── style.css
```

Incorporating Semantic-UI into a project

- Download the semantic-ui archive
- unzip and copy to the assets folder - inside a css folder
- The semantic-ui archive is provided in the lab
- (dont try to build it from the semantic-ui instructions)



First Steps…

```
<head>
  <meta charset="UTF-8">
  <link rel="stylesheet" type="text/css" href="http://fonts.googleapis.com/css?family=Open+Sans" />
  <link rel="stylesheet" href="assets/semantic/semantic.css">
  <link type="text/css" rel="stylesheet" href="style.css" media="screen"/>
  <title>BSc in the Internet of Things</title>
</head>
```

- Link to the semantic.css stylesheet we have just included.

- This makes most of the Semantic-UI components available to your project

First Steps - remove existing stylesheet

- Delete almost all CSS rules
  we have built up in the page
  so far

- Leave just the ‘banner’ rule:

```
.banner {
  background: url("assets/images/banner.jpg")  top center;
  background-position: top center;
  color: white;
  height:300px;
}
```

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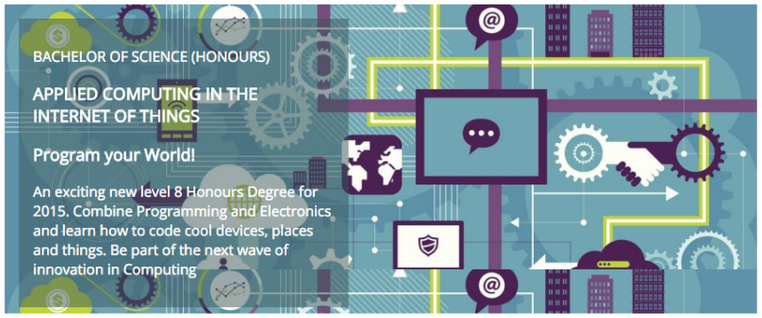
BSc (Hons) the Internet of Things



Programming

Learn a broad range of programming and problem solving skills, including exciting new platforms, software tools and languages. Use these skills to build apps for mobile, cloud and device based IoT applications. Evolve a porfolio of facinating aplications.

Networks

This strand will explore modern networks and cloud technology. Be able to configure, network and manage all categories of computer systems from simple controlers to single board board computers, mobiles and full workstations.

Data Science

At the heart of many IoT applications is data: measurements, events alarms and other information that must be relayed, stored and ultimately turned into knowledge. Learn the fundamentals of modern approaches to data in this strand.

Project

Building exciting IoT projects in every semester of the programme. Your projects will combine skills acquired from the other strands and enable you to build a comprehensive an compelling portfolio of IoT applications and services.

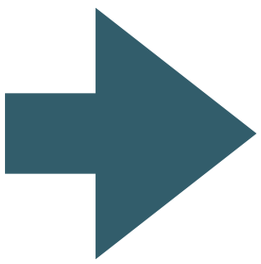
Devices

The 'Things' we connect to are often physical devices. These can range from simple temperature sensors to sophisticated control systems like traffic lights or cameras. Connecting to and interacting with the physical world is the subject of this strand.

Mathematics

Introduce foundation concepts for many of the more applied concepts in the other Strands. Learn mathematical techniques in a modern context and apply core principles in new an interesting ways.

Supported by leading edge research at...



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BACHELOR OF SCIENCE (HONOURS)
APPLIED COMPUTING IN THE INTERNET OF THINGS
Program your World!
An exciting new level 8 Honours Degree for 2015. Combine Programming and Electronics and learn how to code cool devices, places and things. Be part of the next wave of innovation in Computing

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TSSG

ctrg
convergent technologies research group

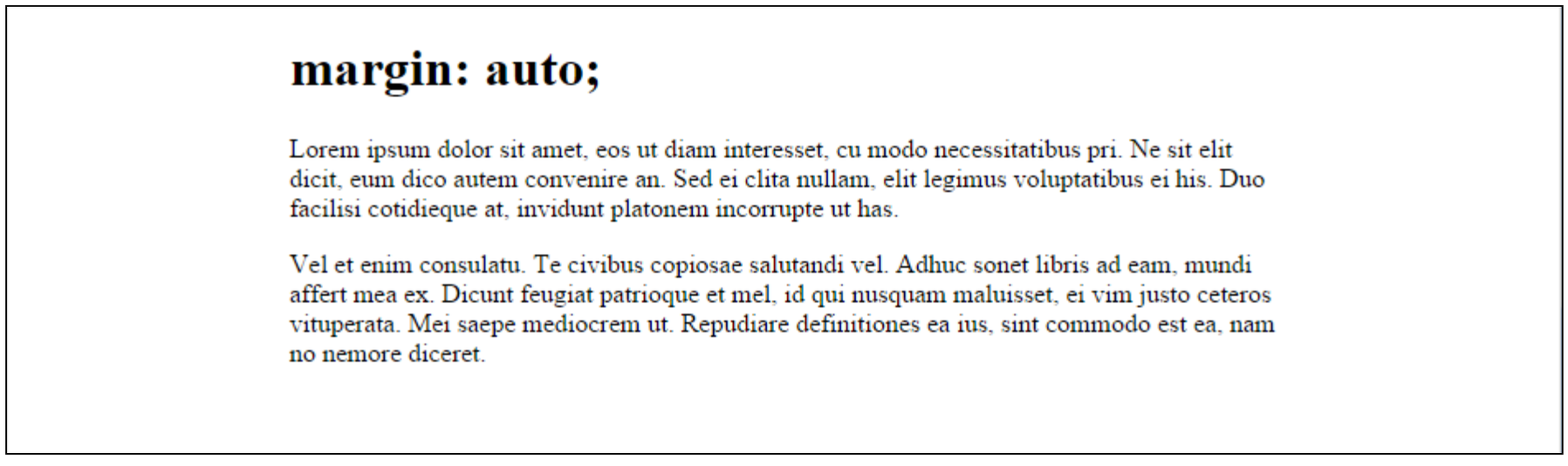
AUTOMOTIVE CONTROL GROUP
Software Engineering for the Connected Car

facebook twitter linkedin

margin: auto;

```css
#main {
  width: 600px;
  margin: 0 auto;
}
```

- Setting the **width** of a block-level element will stop it stretching out to the edges left and right. Then set the margin to auto left and right. This horizontally centres that element within its container.

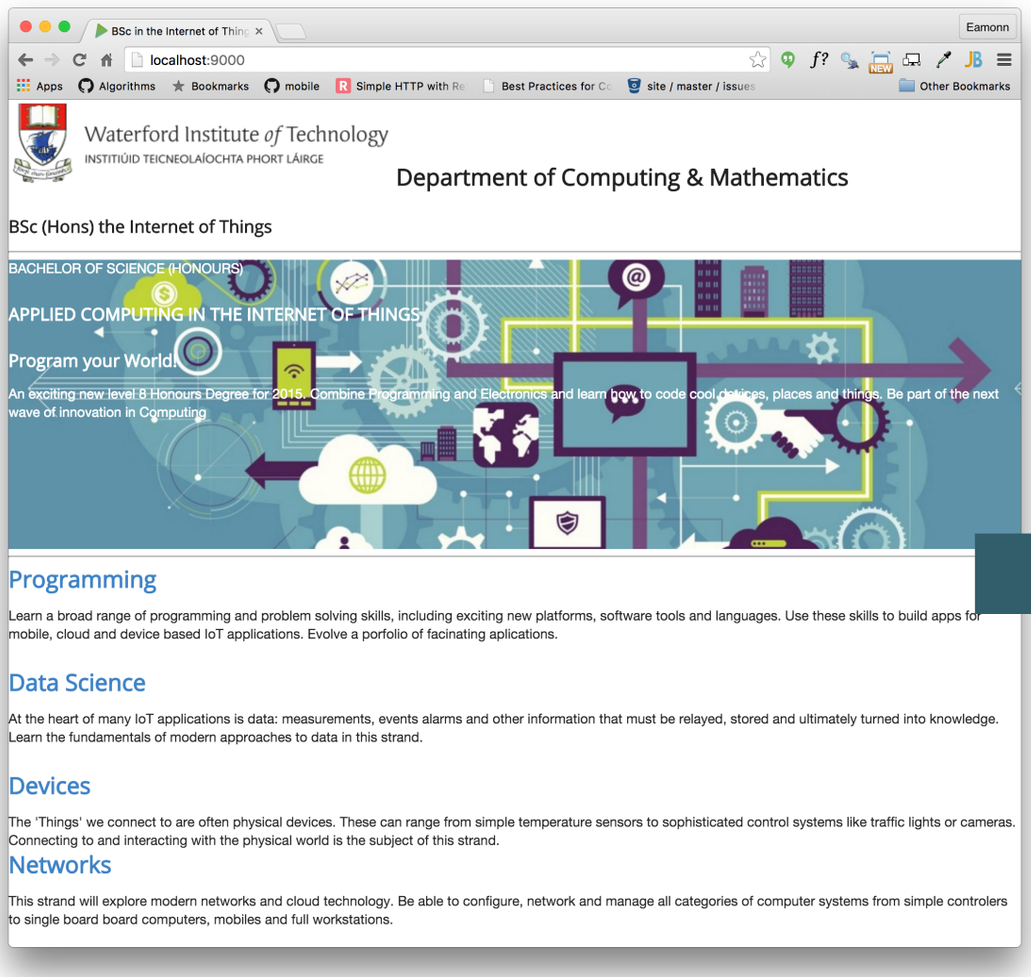


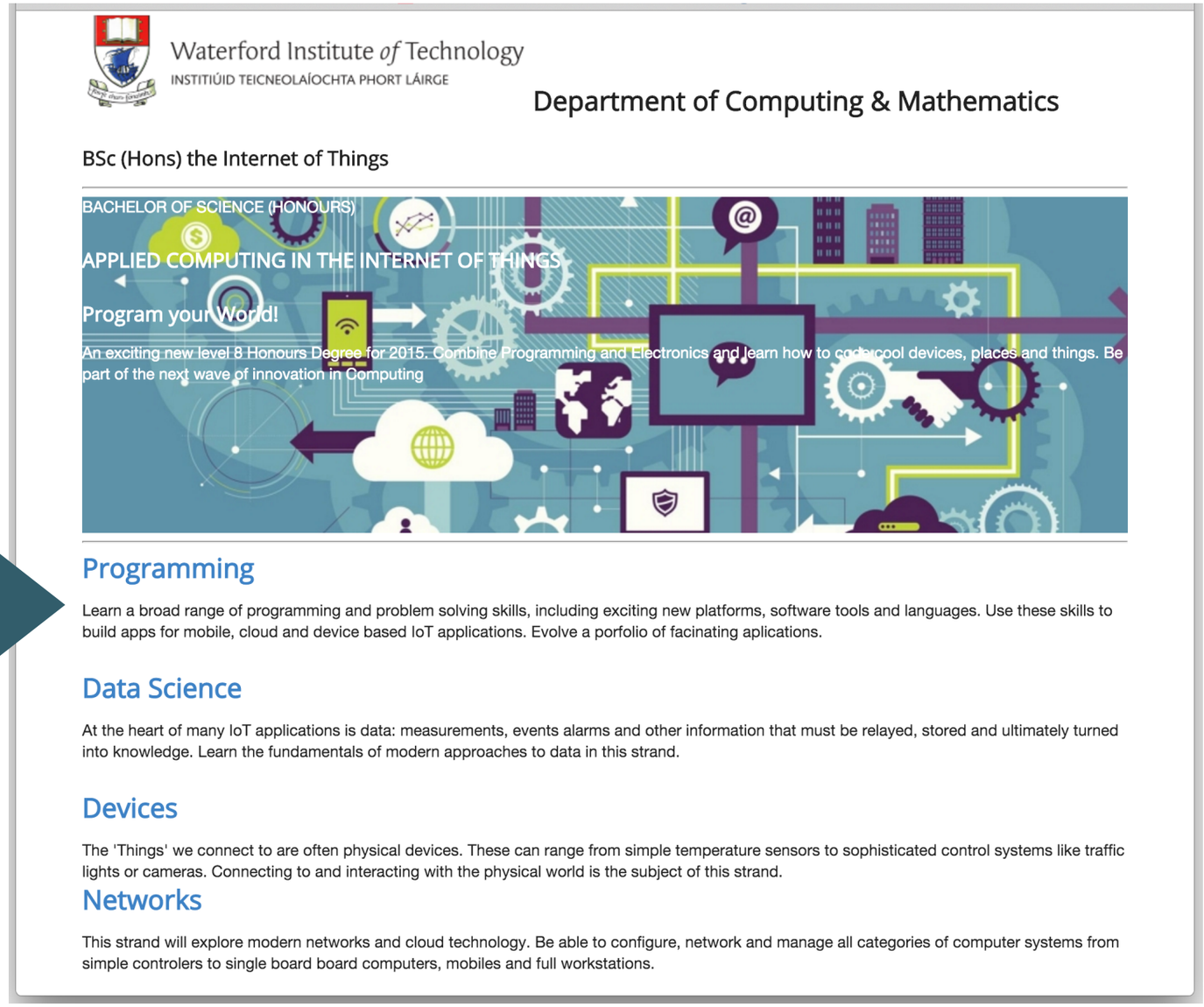
ui container

- Replaces the need for “margin:auto” if we are using Semantic-UI

index.html

```
<section class="ui container">

  <header id="header">

  ... as before

  </footer>

</section>
```





Containers

http://semantic-ui.com/elements/container.html

When To Use

A container is an element designed to contain page elements to a reasonable maximum width based on the size of a user's screen. This is useful to couple with other UI elements like grid or menu to restrict their width to a reasonable size for display.

Container Sizes

Containers are designed to responsively adjust their maximum width based on the size of the screen they are appearing.

	Mobile	Tablet	Small Monitor	Large Monitor
Width	100%	723px	933px	1127px
Gutter Size	1em	Fluid	Fluid	Fluid
Responsive Visibility	`mobile only`	`tablet only`	`small monitor only`	`large monitor only`
Device Width	below 768px	768px - 991px	992px - 1200px	above 1200px

ui segment

- Use to group related content
- remove all of the ids and classes currently all files.
- Give the enclosing articles/sections the class "ui segment":

header

```
<header class="ui segment">
  <h2>
    <img class="header-crest-img" src="assets/images/wit-crest.png" alt="WIT Cre
    Department of Computing &amp;amp; Mathematics
  </h2>
  <h3> BSc (Hons) the Internet of Things </h3>
</header>
```

footer

```
<footer class="ui segment">
  <p class="footer-social-links">
    <a href="http://www.facebook.com/witcomp"> facebook </a>
    <a href="http://twitter.com/ComputingAtWIT"> twitter </a>
    <a href="https://ie.linkedin.com/pub/computing-at-wit/a9/221/1b6"> linkedin </
  </p>
</footer>
```

sponsors

```
<section class="ui segment">
  <h4> Supported by leading edge research at... </h4>
  <p>
    <img class="footer-img" src="assets/images/tssg.png" alt="TSSG">
    <img class="footer-img" src="assets/images/ctrg.png" alt="CTRG">
    <img class="footer-img" src="assets/images/automotive.png" alt="ATG">
  </p>
</section>
```

ui segment

curriculum section

```
<article class="ui segment">
  <hr>
  <section>
    <h2><a href="strands/programming.html"> Programming </a></h2>
    <p>
      Learn a broad range of programming and problem solving skills, including ex
    </p>

    <h2><a href="strands/data.html"> Data Science </a></h2>
    <p>
      At the heart of many IoT applications is data: measurements, events alarms
    </p>
    <h2><a href="strands/devices.html"> Devices </a></h2>
    <p>
      The 'Things' we connect to are often physical devices. These can range from
    </p>
  </section>
  <section>
    <h2><a href="strands/networks.html"> Networks </a></h2>
    <p>
      This strand will explore modern networks and cloud technology. Be able to c
    </p>
    <h2><a href="strands/project.html"> Project </a></h2>
    <p>
      Building exciting IoT projects in every semester of the programme. Your pro
    </p>

    <h2><a href="strands/maths.html"> Mathematics </a></h2>
    <p>
      Introduce foundation concepts for many of the more applied concepts in the
    </p>
  </section>
</article>
```

Segments

- Introduces extra padding + a light border around the sections.

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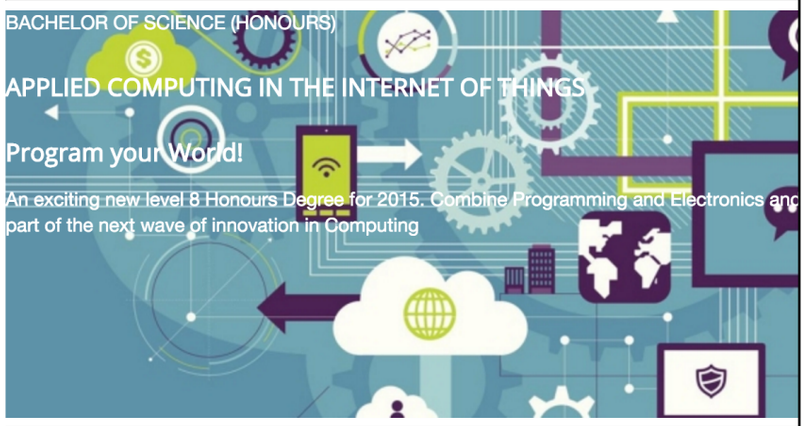

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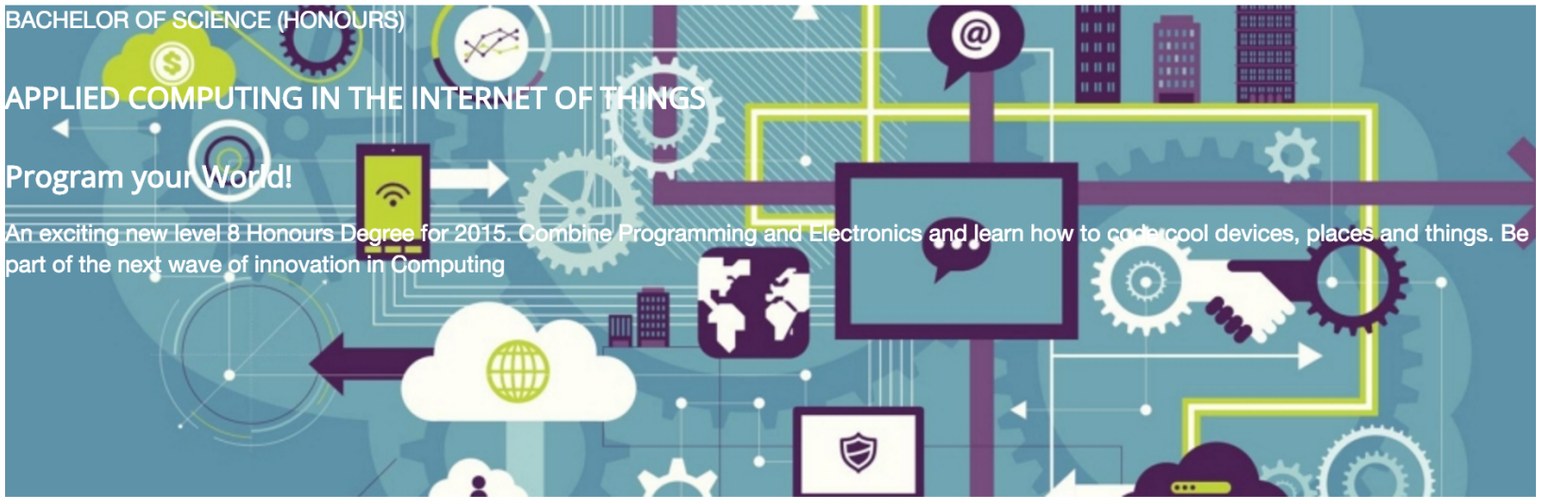

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Networks

Layout of ‘Strand’ Pages

Include semantic.css

```
<head>
  <meta charset="UTF-8">
  <link rel="stylesheet" type="text/css" href="http://fonts.googleapis.com/css?family=Open+Sans" />
  <link rel="stylesheet" href="../assets/semantic/semantic.css">
  <link type="text/css" rel="stylesheet" href="style.css" media="screen"/>
  <title>BSc in the Internet of Things</title>
</head>
```

```
<body>
  <section class="ui container">
    ... existing headder section
    <section class="ui segment">
      ... the article and figures on the page
    </section>
    ... existing footer section
  <section>
</body>
```

Introduce container + segment

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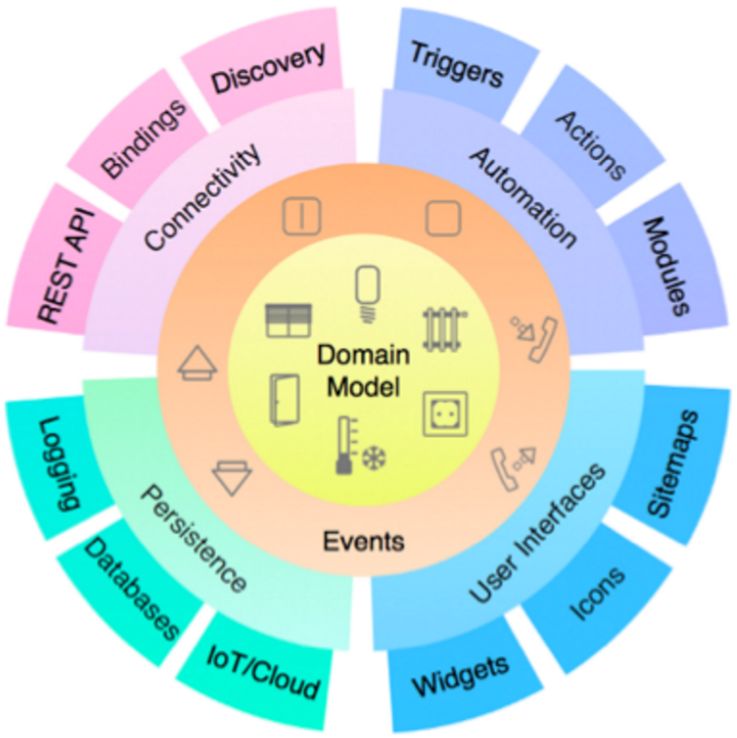
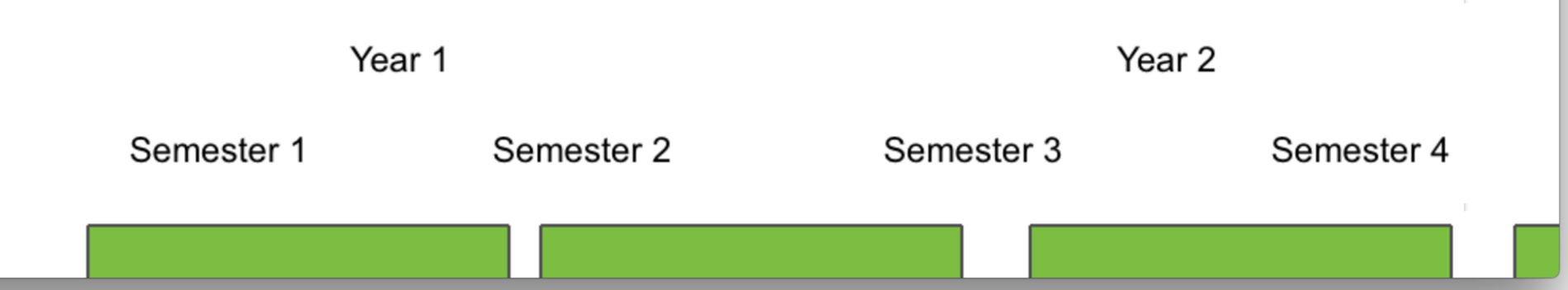
Programming



The IoT requires a new breed of software skills, with an emphasis on flexible, reactive, and highly networked applications and services. This software runs on a diverse range of systems, is frequently connected to cloudservices, and may be capable of leveraging large data sets to deliver inferences and decision support in an informedmanner. The software is designed and implemented using agile techniques, with an emphasis on test driven developmentand quality user experiences..



Segment Types

Segment

A segment of content

Raised

A segment may be formatted to raise above the page.

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.

Stacked

A segment can be formatted to show it contains multiple pages

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.

Eg: Raised Segments

This button reveals source

Raised

A segment may be formatted to raise above the page.

Example

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.

```
<div class="ui raised segment">
  <p>Pellentesque habitant morbi tristique senectus et netus et
malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat
vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet
quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat
eleifend leo.</p>
</div>
```