

Fundamentals of html & css

Page & Site Structure

Templating & Deployment

Style & Design

Fundamentals of html & css

Lab-1 Editing HTML



```
index.html
1 <html>
2 <head>
3 <title>Starbuzz Coffee</title>
4 </head>
5
6 <body>
7 <h1>Starbuzz Coffee Beverages</h1>
8
9 <h2>House Blend, $1.49</h2>
10 <p>A smooth, mild blend of coffees from Mexico, Bolivia and Guatemala.</p>
11
12 <h2>Mocha Cafe Latte, $2.35</h2>
13 <p>Espresso, steamed milk and chocolate syrup.</p>
14
15 <h2>Cappuccino, $1.89</h2>
16 <p>A mixture of espresso, steamed milk and foam.</p>
17
18 <h2>Chai Tea, $1.85</h2>
19 <p>A spicy drink made with black tea, spices, milk and honey.</p>
20 </body>
21 </html>
22
```

This lab will firstly introduce you to the tools we will use during the web development module and secondly introduce you to creating, editing, saving and displaying a web page.

Lab-1 HTML Structure



Welcome to the App Bundle Store

This store brings you great app bundles week after week. We select the best power user apps from a broad range of suppliers, at great prices.

Whether you are interested in gaming or graphics design, software development or media production - we have the bundle for you. Each app bundle is designed to compliment the others, delivering you an exciting take on a scene.

Favourites

- Hype by Tumult
- Webstorm by Idea
- Sublime by sublimehq.com
- Desktop Utility by Sweet Productions

The labs are where you will do the real learning in this module. In Lab0-01 you will become familiar with the editor Sublime. We will then use this editor to create a simple multi-page web site containing a small variety of text, images and links. In this lab we will explore some of the basic features of CSS, including colours, font and interesting techniques for setting styles across entire sections of a page.

Lab-2 CSS Intro



```
<!DOCTYPE HTML>
<html>
<head>
<title>APP Stores</title>
<link type="text/css" rel="stylesheet" href="style.css" media="screen" />
</head>
<body>
<h1>Score: Apps, Movies, Music, Books</h1>
<ol>
<li><a href="apps.html">Apps</a></li>
<li><a href="music.html">Music</a></li>
<li><a href="movies.html">Movies</a></li>
</ol>
<div class="main_panel">
<h2>New Games</h2>
<ul>
<li>Clear All</li>
<li>Single Box</li>
<li>Squinks</li>
</ul>
</div>
</body>
</html>
```

In this lab we will begin a new project which will have CSS stylesheet from the beginning. We will explore some of the basic features of CSS, including colours, font and interesting techniques for setting styles across entire sections of a page.

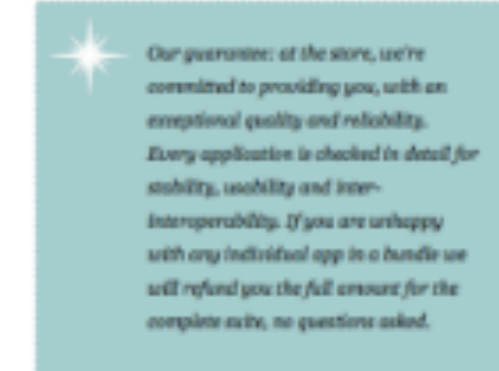
Lab-3a Layout



Welcome to the App Bundle Store

This store brings you great app bundles week after week. We select the best power user apps from a broad range of suppliers and combine them into great deals. These are the highest quality apps from the best publishers, at great prices.

Whether you are interested in gaming or graphics design, software development or media production - we have the bundle for you. Each app bundle is designed to compliment the others, delivering you an exciting take on a scene.



We roll over the bundles on a weekly basis, so be sure to check back regularly for bundle that suits your tastes. If you don't see application bundles that suit your interests - please let us know! We are always interested in combining new and interesting bundles and will strive to figure out your needs and match them to current or upcoming offerings.

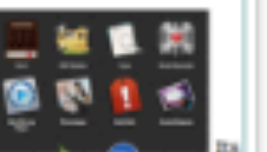
Now that you've an idea of what we do, why not call into our store? We have create some [detailed directions](#) to get you here in record time. Come and join us anytime.

What's Apps we Like

In this lab we will work towards developing a site with a more ambitious use of CSS. In particular, the box model will be used to achieve a more professional user experience.

Weekly Specials

Mac Supercharge Bundle



It's been a long time since the last free Mac bundle that big. StackSocial just published its so called Mac Freebie Bundle 2.0 which contains 10 apps worth \$519. Most of them are about design and have not been part of bundles before.




Freebie



Stacksocial just published its so called Free Ondesoft Mac Tool Bundle, which contains apps from Ondesoft. The bundle worth \$146 will be probably available only a couple of days so you'd better

Page & Site Structure

Lab-3b Multicolumn




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<ul style="list-style-type: none">MaurisCrasProinIntegerCurabiturIntegerSuspendisseQuisque	<p> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed feugiat nisi at sapien. Phasellus varius tincidunt ligula. Praesent nisi. Duis sollicitudin. Donec dignissim, est vel sauctor blandit, ante est laoreet neque, non pellentesque mauris turpis eu purus.</p> <p>Suspendisse mollis leo nec diam. Vestibulum pulvinar tellus sit amet nulla fringilla semper. Aenean aliquam, urna et accumsan sollicitudin, tellus pede lobortis velit, nec placerat dolor pede nec nibh. Donec fringilla. Duis adipiscing diam at enim. Vestibulum nibh.</p>
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This weeks lab will give you more practical experience od the box model and specifically how to build a simple multi-column layout using the techniques we have explored in class. You should complete this lab before starting to consider your project in detail.

Lab-4a Navigation



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Home

Page 1

Page 2

Page 3

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Page 100

Restructure the output of the last lab to participate in a tabbed navigation structure, and then produce a simple application mockup using these techniques. Do this by introducing a simple tabbed design into the site to provide the user with the visual metaphor for navigation. We then 'wire-up' these tabs to lead the user through the site. We will do this twice: once for the example content we laid out in last weeks lab. Then we will apply this to the app store site, using the same CSS rules.

Templating & Deployment

Lab-4b Case Study



Explore a web site that embodies many of the techniques we have explored so far. In the lab the web is evolved from unstyled content to a reasonably elegant and clean design - using semantic html element where appropriate.

Lab-5a Harp & Surge



Deploy anything in six keystrokes

There's only six keystrokes between you and deployment: Type `surge` and hit `enter` in your project directory to get it online immediately.

```
$ npm install --global surge
$ surge

project: path/to/my-project
domain: my-project.surge.sh
upload: [*****]

Success! Published and running at my-project.surge.sh
```

Install software tools to serve a web site locally and also to deploy the web site to a public web server.

Lab-5b Templating



```
├─ harp.json
├─ public
│   └─ assets
│       └─ ...
│   └─ includes
│       ├── _curriculum.ejs
│       ├── _footer.ejs
│       ├── _header.ejs
│       ├── _sponsors.ejs
│       └── _summary.ejs
├─ index.ejs
├─ strands
│   ├── _layout.ejs
│   ├── data.ejs
│   ├── devices.ejs
│   ├── maths.ejs
│   ├── networks.ejs
│   ├── programming.ejs
│   └── project.ejs
└─ style.css
```

Rebuild the IoT web site from the last lab using templating. This version of the site will aim to significantly reduce the content the author has to manage by reusing 'templates' containing common sections.

Style & Design

Lab-6a Semantic UI



Department of Computing & Mathematics



BSc (Hons) the Internet of Things

BACHELOR OF SCIENCE (HONOURS)

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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.

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 portfolio of fascinating applications.

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.

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.

Rebuild the iot web site using semantic-ui

Lab-6b Semantic UI



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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.

Networks

This strand will explore modern networks and cloud computing. Be able to configure, network and manage all computers in computer systems from simple containers to single board computers, tablets and full workstations.

Project

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

Mathematics

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

Supported by leading edge research



Continue to enhance the IoT web site with additional Semantic-UI styles & Components