Lecture 5

Building a site using semantic XHTML and CSS

Analysis of existing markup

Internal style sheet
Poor names (not meaningful)
Terribly poor CSS

What are all these divs? Some empty?
Style in with content
Not xhtml
Unreadable

Style in with content
Poor names
Poor layout
Messy / unreadable

No use of CSS Cascade (text-decoration)
Duplicated properties (padding in navitem)
Unreadable

Messy
Style in with content
Divs?

<p> elements missing - uses
Style in with content
Poor names
Messy layout

br and p?
Why use a table?
Style in with content
Poor layout

Unreadable

Step	Action
1	Strip all presentation out
2	Only keep / apply semantic HTML
3	Mark out logical content blocks (div and span)
4	Create Overall CSS file
5	Normalise CSS
6	Create layout, colour, typography CSS

First steps ...

- Cross out all CSS that shouldn't be in the source
- Use semantic HTML to convey the meaning of the document

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"><head>


<meta http-equiv="Content-Type" content="text/html; charset=utf-8"><title>Faculty of Business and Law</title>

<link href="images/csslp.css" rel="stylesheet" media="screen" type="text/css">
<link rel="alternate" type="application/rss+xml" href="http://bustech2.kingston.ac.uk/rss.php" title="Faculty of Business and Law (Kingston
University) - News Feed">
<link rel="alternate" type="application/rss+xml" href="http://bustech2.kingston.ac.uk/rss_events.php" title="Faculty of Business and Law (Kingston
University) - Events Feed">
<style type="text/css">
<!--
.style9 {      font-size: 11px;
        color: #FFFFFF;
        font-family: Verdana;
}
.news_line {  border-bottom-width: 1px;
        border-bottom-style: solid;
        border-bottom-color: #eeeeee;
}
.style23 {    font-family: Verdana;
        font-size: 12px;
}
.style29 {    color: #2E589A;
        font-weight: bold;
}
.style38 {border-bottom-width: 1px; border-bottom-style: solid; border-bottom-color: #eeeeee; font-family: Verdana; font-size: 11px; }
.style41 {color: #FFFFFF}
.contentcenter_bottom{
        width:966px;
        position:absolute;
        height: 20px;
        margin: 0 auto;
        margin-top: -20px;
        bottom:0px;
}

-->
</style>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xht
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>Faculty of Business and Law</title>
</head>
```

```
<style type="text/css">
<!--
body,td,th {
	font-family: Lucida Grand, Verdana, Helvetica;
	font-size: 12px;
}
#navlist
{
	text-decoration: none;
	background-color:#FFFFFF;
	color:#FFFFFF;
	width:160px;

}
#navlist_sub
{
	text-decoration: none;
	background-color:#FFFFFF;
	color:#0000CC;

}
#navlist_monact
{
	text-decoration: none;
	background-color:#9EAFCB;
	padding:3px;
	margin-bottom:1px;
}
#navlist_act
{
	text-decoration: none;
	background-color:#1F5496;
	padding:3px;
	margin-bottom:1px;

}
#sublist_act
{
	text-decoration: none;
	background-color:#F7F7F7;
	padding-left:4px;
	margin-bottom:1px;
}
#navitem
{
	border-bottom:#BBBBBB 1px dotted;
	padding:3px;
	padding-left:4px;
	font-size:11px;
}
#navsubitem
{
	padding:2px;
	font-size:11px;
}
-->
</style></head><body>
```

```
<div id="container">
  <div id="header"> </div>
  <div id="content">
    <div id="banner" style="height: 145px;">
        <img src="images/logo_index.jpg" alt="logo" usemap="#banner" border="0" height="135" width="966">
      <map name="banner" id="banner"><area shape="rect" coords="25,28,402,66" href="http://www.kingston.ac.uk/" alt="Kingston University
Website"><area shape="rect" coords="569,332,105" href="http://business.kingston.ac.uk/" alt="Business and Law Home Page">
      </map>
      </div>


  <body>
  <img src="images/logo_index.jpg" alt="logo" usemap="#banner" border="0" height="135" width="966">
```

```
    <div id="left_col">
<div id="navlist">

          <div id="navlist_act"><a href="http://
bustech2.kingston.ac.uk/index.php"><span style="color: rgb(255, 255,
255);">Home</span></a></div>
          <div id="navlist_sub">
                  <div id="navitem">
            <a href="http://bustech2.kingston.ac.uk/flavor2.php?
id=320">Kingston Business School</a>

                  </div>
                <div id="navitem">
              <a href="http://bustech2.kingston.ac.uk/flavor2.php?
id=342">Kingston Law School</a>

                  </div>
                <div id="navitem">
              <a href="http://bustech2.kingston.ac.uk/flavor2.php?
id=295">Dean's Welcome</a>

                  </div>
```

```
            <a href="/index.php">Home</a>
news.php">Ne  <a href="/flavor2.php?id=320">Kingston Business School</a>
            <a href="/flavor2.php?id=342">Kingston Law School</a>
            <a href="/flavor2.php?id=295">Dean's Welcome</a>
            <a href="/news.php">News</a>
id=293">Cont  <a href="/flavor2.php?id=293">Contact</a>
            <a href="/flavor2.php?id=294">Location</a>
            <a href="/events.php">Seminars and Events</a>
            <a href="/flavor2.php?id=378">Courses</a>
id=294">Loca  <a href="/flavor2.php?id=323">Alumni</a>
            <a href="/flavor2.php?id=319">Departments and Staff</a>
            <a href="/flavor2.php?id=351">Research</a>
            <a href="/flavor2.php?id=327">Services for Business</a>
            <a href="/flavor2.php?id=321">International</a>
```

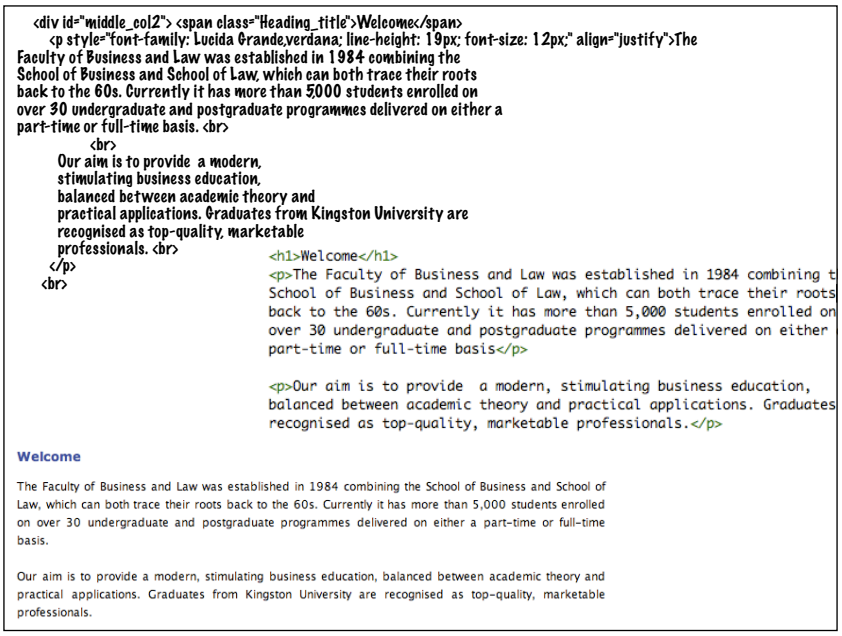
```
          </div>

          <div id="navlist_monact"><a
bustech2.kingston.ac.uk/events.php
255);">Seminars and Events</span>

          <div id="navlist_monact"><a
bustech2.kingston.ac.uk/flavor2.ph
(255, 255, 255);">Courses</span></a

          <div id="navlist_monact"><a
bustech2.kingston.ac.uk/flavor2.ph
(255, 255, 255);">Alumni</span></a>

          <div id="navlist_monact"><a
bustech2.kingston.ac.uk/flavor2.ph
(255, 255, 255);">Departments and
```

```
'><a
2.ph
un></
```

```
'><a
2.php?id=327"><span style="color: rgb
usiness</span></a></div>
```

```
'><a href="http://
2.php?id=321"><span style="color: rgb
</span></a></div>
```

- Home
- Kingston Business School
- Kingston Law School
- Dean's Welcome
- News
- Contact
- Location
- Seminars and Events
- Courses
- Alumni
- Departments and Staff
- Research
- Services for Business
- International



```
<div id="middle_col2"> <span class="Heading_title">Welcome</span>
    <p style="font-family: Lucida Grande,verdana; line-height: 19px; font-size: 12px;" align="justify">The
Faculty of Business and Law was established in 1984 combining the
School of Business and School of Law, which can both trace their roots
back to the 60s. Currently it has more than 5,000 students enrolled on
over 30 undergraduate and postgraduate programmes delivered on either a
part-time or full-time basis. <br>
        <br>
      Our aim is to provide  a modern,
      stimulating business education,
      balanced between academic theory and
      practical applications. Graduates from Kingston University are
      recognised as top-quality, marketable
      professionals. <br>
    </p>
  <br>
```

```
<h1>Welcome</h1>
<p>The Faculty of Business and Law was established in 1984 combining t
School of Business and School of Law, which can both trace their roots
back to the 60s. Currently it has more than 5,000 students enrolled on
over 30 undergraduate and postgraduate programmes delivered on either
part-time or full-time basis</p>

<p>Our aim is to provide  a modern, stimulating business education,
balanced between academic theory and practical applications. Graduates
recognised as top-quality, marketable professionals.</p>
```

Welcome

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Our aim is to provide a modern, stimulating business education, balanced between academic theory and practical applications. Graduates from Kingston University are recognised as top-quality, marketable professionals.

```
      <span class="Heading_1_orange" style="font-family: Lucida
Grande,verdana; line-height: 19px; font-size:
12px;"><strong>Latest news</strong></span><span
class="Heading_1_orange"><strong>:</strong></span> <a
href="http://bustech2.kingston.ac.uk/rss.php"><img src="images/
feed.gif" alt="Rss feed" border="0" height="16" width="16"></
a><br>
      <table border="0" cellpadding="3" cellspacing="0"
width="98%">
          <tbody><tr>
        <td><img src="images/report.gif" alt="news_icon"></td>
        <td class="news_line style31 style23"><a href="http://
bustech2.kingston.ac.uk/news_item.php?id=82"><span
class="Heading_1">Kingston law graduate appointed President of
the Surrey Law Society ...</span></a><br>
                <span class="style39">Surrey Law Society
(SLS) has appointed Keith ...<span class="bodytext_small"><a
href="http://bustech2.kingston.ac.uk/news_item.php?
id=82">Read more</a></span></span></td>
        <td class="style38" valign="top" width="145"><div
class="bodytext_small" align="right">22 Jan 2008 - 11:04:00</
div></td>
      </tr>
          <tr>
        <td><img src="images/report.gif" alt="news_icon"></td>
        <td class="news_line style31 style23"><a href="http://
bustech2.kingston.ac.uk/news_item.php?id=81"><span
class="Heading_1">Law students in European regional f
span></a><br>
                <span class="style39">A team from
Law School comprising Level 6 ...<span class="bodytext
href="http://bustech2.kingston.ac.uk/news_item.php?
id=81">Read more</a></span></span></td>
        <td class="style38" valign="top" width="145"><d
class="bodytext_small" align="right">21 Jan 2008 - 1
div></td>
      </tr>
          <tr>
        <td><img src="images/report.gif" alt="news_icon
```

```
        <td class="news_line style31 style23"><a href="http://
bustech2.kingston.ac.uk/news_item.php?id=80"><span
class="Heading_1">Place in national final for BA Business
Management student ...</span></a><br>
                <span class="style39">Ronald Katamba beat
eight other students in a ...<span class="bodytext_small"><a
href="http://bustech2.kingston.ac.uk/news_item.php?
id=80">Read more</a></span></span></td>
        <td class="style38" valign="top" width="145"><div
class="bodytext_small" align="right">11 Jan 2008 - 10:09:00</
div></td>
      </tr>
          <tr>
        <td><img src="images/report.gif" alt="news_icon"></td>
        <td class="news_line style31 style23"><a href="http://
bustech2.kingston.ac.uk/news_item.php?id=79"><span
class="Heading_1">Deutsche Bank aided by BIT student project ...</
span></a><br>
                <span class="style39">Students studying on
the BSc (Hons) Business ...<span class="bodytext_small"><a
href="http://bustech2.kingston.ac.uk/news_item.php?
id=79">Read more</a></span></span></td>
        <td class="style38" valign="top" width="145"><div
class="bodytext_small" align="right">07 Jan 2008 - 11:28:00</
div></td>
      </tr>
          <tr>
        <td colspan="3"><a href="/news.php ">more</a></td></tr>
```

Latest news:

Kingston law graduate appointed President of the Surrey Law Society ... Surrey Law Society (SLS) has appointed Keith ...Read more	22 Jan 2008 - 11:04:00
Law students in European regional final ... A team from Kingston Law School comprising Level 6 ...Read more	21 Jan 2008 - 10:58:00
Place in national final for BA Business Management student ... Ronald Katamba beat eight other students in a ...Read more	11 Jan 2008 - 10:09:00
Deutsche Bank aided by BIT student project ... Students studying on the BSc (Hons) Business ...Read more	07 Jan 2008 - 11:28:00

More

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```
<h2>Latest news</h2>
<a href="/rss.php"><img src="images/feed.gif" alt="Rss feed" border="0" height="16" width="16"></a>
<table>
<tbody>
<tr><td><img src="images/report.gif" alt="news_icon"></td>
    <td><a href="/news_item.php?id=82">
        Kingston law graduate appointed President of the Surrey Law Society ...</a>
        Surrey Law Society (SLS) has appointed Keith ...
        <a href="/news_item.php?id=82">Read more</a></td>
    <td>22 Jan 2008 - 11:04:00</td>
</tr>
<tr><td><img src="images/report.gif" alt="news_icon"></td>
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        Law students in European regional final ...</a>
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    <td>21 Jan 2008 - 10:58:00</td>
</tr>
<tr><td><img src="images/report.gif" alt="news_icon"></td>
    <td><a href="/news_item.php?id=80">
        Place in national final for BA Business Management student ...</a>
        Ronald Katamba beat eight other students in a ...
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    <td>11 Jan 2008 - 10:09:00</td>
</tr>
<tr><td><img src="images/report.gif"
    <td><a href="/news_item.php?id=79
        Deutsche Bank aided by BIT st
        Students studying on the BSc
        <a href="/news_item.php?id=79
    <td>07 Jan 2008 - 11:28:00</td>
</tr>
<tr><td colspan="3"><a href="/news.php >more</a></td></tr>
```

Latest news:

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Deutsche Bank aided by BIT student project ... Students studying on the BSc (Hons) Business ...Read more	07 Jan 2008 - 11:28:00

More

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```
   <div id="right_col">
     <form id="search" name="search" method="post"
action="search.php">
       <table style="background-image: url(images/
search_back.jpg); background-repeat: no-repeat; background-
position: center top;" border="0" cellpadding="2" cellspacing="0"
width="100%">
         <tbody><tr>
           <td colspan="2"><span class="style9"><span
class="style41"><strong>Search Business &amp;amp; Law:</strong></
span></span></td>
         </tr>
         <tr>
           <td colspan="2"><input id="searchterm" name="searchterm"
type="text"></td>
         </tr>
         <tr>
           <td colspan="2"><div align="right">
             <input name="Submit2" value="Search" type="submit">
           </div></td>
         </tr>
       </tbody></table>
     </form>
     <div align="center">
       <p><br>
         <img src="images/amba_ac.jpg" alt="AMBA" height="54"
width="160"><br>
       </p>
       <p><br>
       <img src="images/cim_ac.jpg" alt="CIM" height="60"
width="160"></p>
     <p><br>
     <img src="images/cipd.gif" alt="CIPD" height="74"
width="74"><br>
         <br>
       </p>
     </div>
   </div>
```

```
   <div class="contentcenter_bottom" align="center">© <a
href="http://www.kingston.ac.uk/copyright/
index.htm">Kingston University</a> | <a href="http://
www.kingston.ac.uk/disclaimer/index.htm">Disclaimer</a> | <a
href="http://www.kingston.ac.uk/">King
ston</a>&amp;nbsp; </div>
  </div>
</div>
<script src="images/urchin.js" type="text/j

</script>

<script type="text/javascript">

_uacct = "UA-930382-3";

urchinTracker();

</script>
</body></html>
```

Search

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The Chartered Institute of Marketing
Accredited Study Centre

cipd

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```
<form id="search" name="search" method="post" action="search.php">
<table>
<tbody>
<tr><td colspan="2">Search Business &amp;amp; Law:</td></tr>
<tr><td colspan="2"><input id="searchterm" name="searchterm" type="text"></td></tr>
<tr><td colspan="2"><input name="Submit2" value="Search" type="submit"></td></tr>
</tbody>
</table>
</form>
```

```
<img src="images/amba_ac.jpg" alt="AMBA" height="54" width="160">
<img src="images/cim_ac.jpg" alt="CIM" height="60" width="160">
<img src="images/cipd.gif" alt="CIPD" height="74" width="74">
© <a href="http://www.kingston.ac.uk/copyright/index.htm">Kingston University
<a href="http://www.kingston.ac.uk/disclaimer/index.htm">Disclaimer</a> |
<a href="http://www.kingston.ac.uk/">Kingston University Web site</a>
</body>
</html>
```

Search

Accredited by Association of MBAs

The Chartered Institute of Marketing
Accredited Study Centre

cipd

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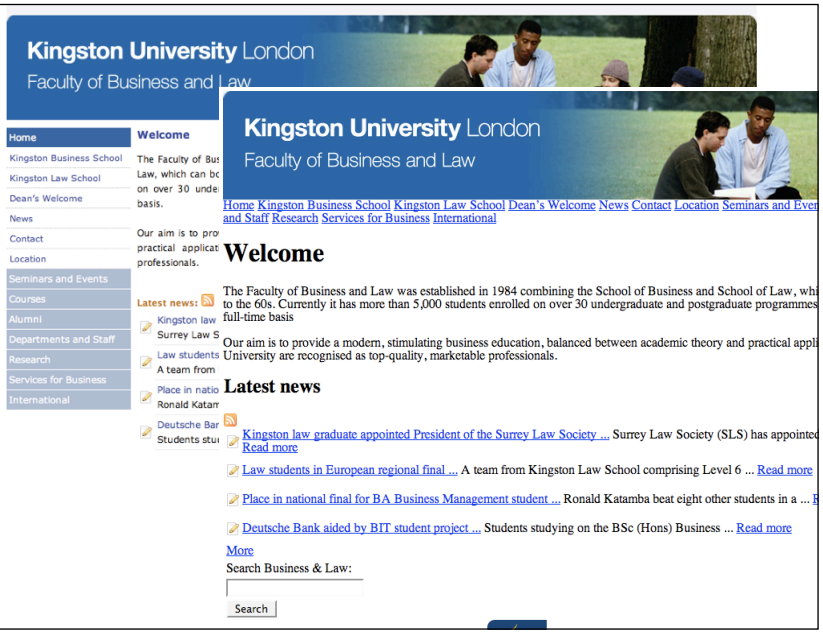


Step	Action
1	Strip all presentation out
2	Only keep / apply semantic HTML
3	Mark out logical content blocks (div and span)
4	Create Overall CSS file
5	Normalise CSS
6	Create layout, colour, typography CSS

div

- markup logical shapes in the document

```
<div id="name">
 .....


</div>
```

span

- markup logical shapes inside another element

here is some example text with an important note that may be styled in a different way </> to the rest of the document.

Semantic names

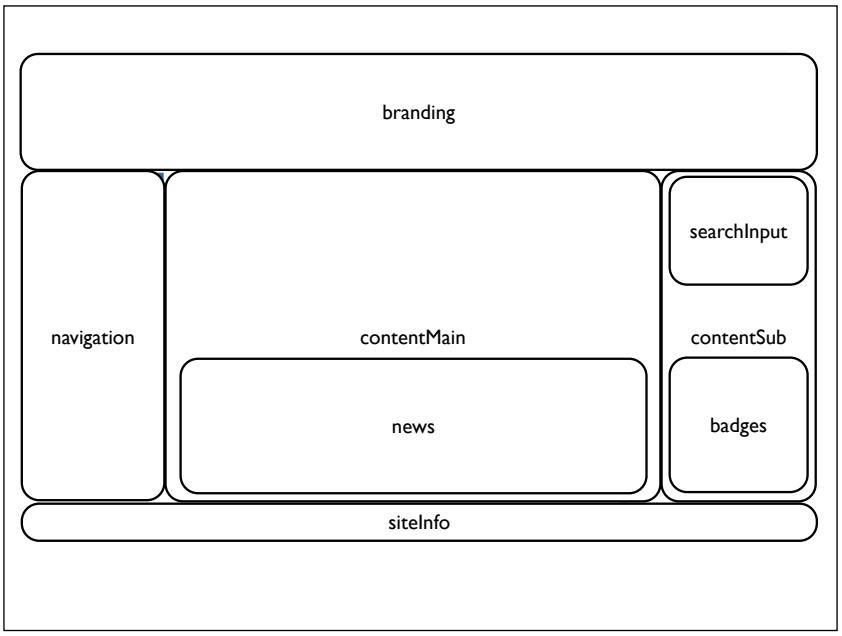
- Avoid presentation/location based names

Good

branding, search, links, navigation, news, content, subcontent, badges, siteinfo

Bad

header, footer, leftcolumn, rightcolumn, main ...



```
<body>
<img src="images/logo_index.jpg" alt="logo" usemap="#banner" border="0" height="135" width="966">
```

```
<div id="branding">
<img src="images/logo_index.jpg" alt="logo" usemap="#banner" border="0" height="135" width="966">
</div>
```

```
<a href="/index.php">Home</a>
<a href="/flavor2.php?id=320">Kingston Business School</a>
<a href="/flavor2.php?id=342">Kingston Law School</a>
<a href="/flavor2.php?id=295">Dean's Welcome</a>
<a href="/news.php">News</a>
<a href="/flavor2.php?id=293">Contact</a>
<a href="/flavor2.php?id=294">Location</a>
<a href="/events.php">Seminars and Events</a>
<a href="/flavor2.php?id=378">Courses</a>
<a href="/flavor2.php?id=323">Alumni</a>
<a href="/flavor2.php?id=319">Departments and Staff</a>
<a href="/flavor2.php?id=351">Research</a>
<a href="/flavor2.php?id=327">Services for Business</a>
<a href="/flavor2.php?id=321">International</a>
```

```
<div id="navigation">
<a class="home" href="/index.php">Home</a>
<a class ="upperMenu" href="/flavor2.php?id=320">Kingston Busine
<a class ="upperMenu" href="/flavor2.php?id=342">Kingston Law Sc
<a class ="upperMenu" href="/flavor2.php?id=295">Dean's Welcome
<a class ="upperMenu" href="/news.php">News</a>
<a class ="upperMenu" href="/flavor2.php?id=293">Contact</a>
<a class ="upperMenu" href="/flavor2.php?id=294">Location</a>
<a class ="lowerMenu" href="/events.php">Seminars and Events</a
<a class ="lowerMenu" href="/flavor2.php?id=378">Courses</a>
<a class ="lowerMenu" href="/flavor2.php?id=323">Alumni</a>
<a class ="lowerMenu" href="/flavor2.php?id=319">Departments and
<a class ="lowerMenu" href="/flavor2.php?id=351">Research</a>
<a class ="lowerMenu" href="/flavor2.php?id=327">Services for Bu
<a class ="lowerMenu" href="/flavor2.php?id=321">International</
</div>
```

- Home
- Kingston Business School
- Kingston Law School
- Dean's Welcome
- News
- Contact
- Location
- Seminars and Events
- Courses
- Alumni
- Departments and Staff
- Research
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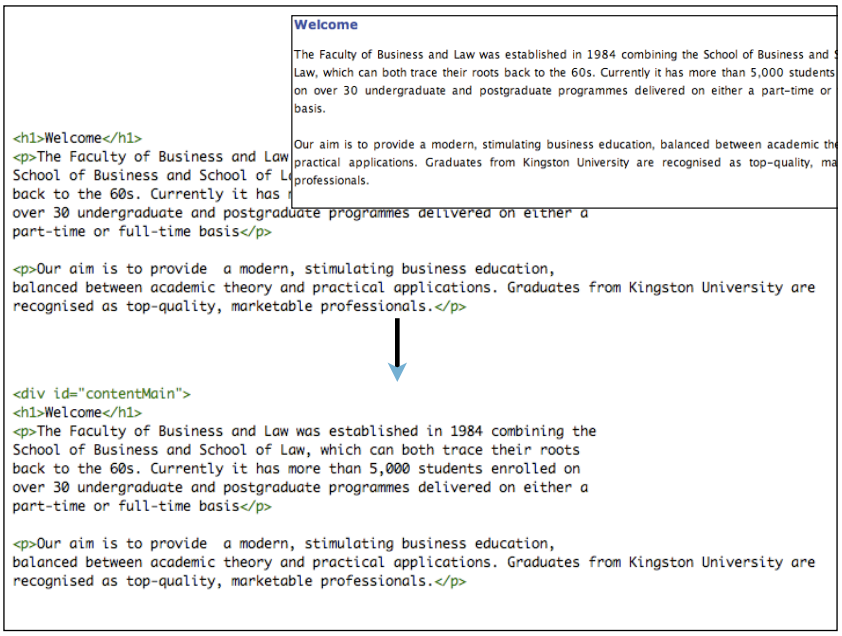
- International


Welcome
The Faculty of Business and Law was established in 1984 combining the School of Business and
Law, which can both trace their roots back to the 60s. Currently it has more than 5,000 students
on over 30 undergraduate and postgraduate programmes delivered on either a part-time or
basis.
Our aim is to provide a modern, stimulating business education, balanced between academic th
practical applications. Graduates from Kingston University are recognised as top-quality, ma
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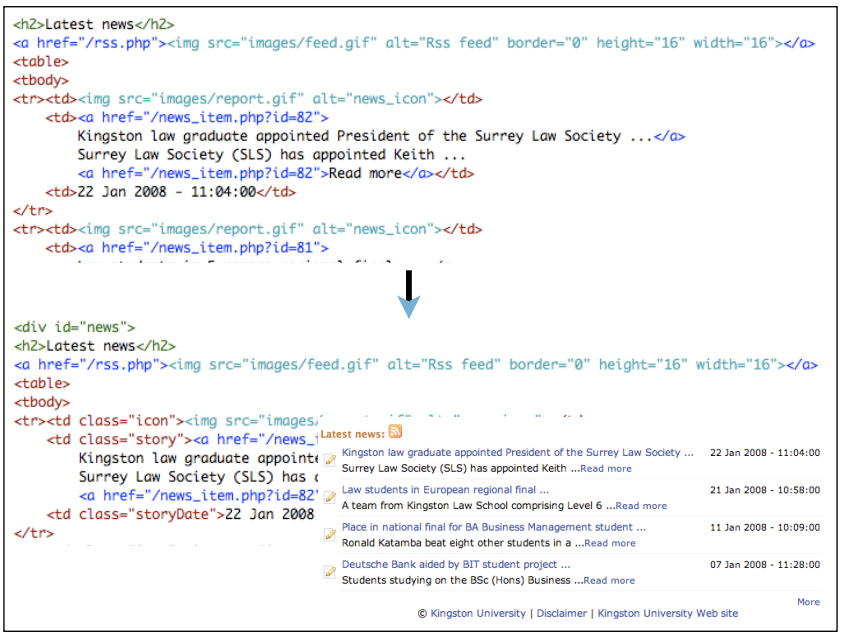
<h2>Latest news</h2>
<img src="images/feed.gif" alt="Rss feed" border="0" height="16" width="16">
<table>
<tbody>
<tr><td><img src="images/report.gif" alt="news_icon"></td>
<td>
Kingston law graduate appointed President of the Surrey Law Society ...
Surrey Law Society (SLS) has appointed Keith ...
Read more</td>
<td>22 Jan 2008 - 11:04:00</td>
</tr>
<tr><td><img src="images/report.gif" alt="news_icon"></td>
<td>

<h2>Latest news</h2>
<img src="images/feed.gif" alt="Rss feed" border="0" height="16" width="16">
<table>
<tbody>
<tr><td class="icon"><img src="images/
<td class="story"><a href="/news_
Kingston law graduate appointe
Surrey Law Society (SLS) has
<a href="/news_item.php?id=82
<td class="storyDate">22 Jan 2008
</tr>
Latest news:
Kingston law graduate appointed President of the Surrey Law Society ... 22 Jan 2008 - 11:04:00
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Deutsche Bank aided by BIT student project ... 07 Jan 2008 - 11:28:00
Students studying on the BSc (Hons) Business ...Read more
More
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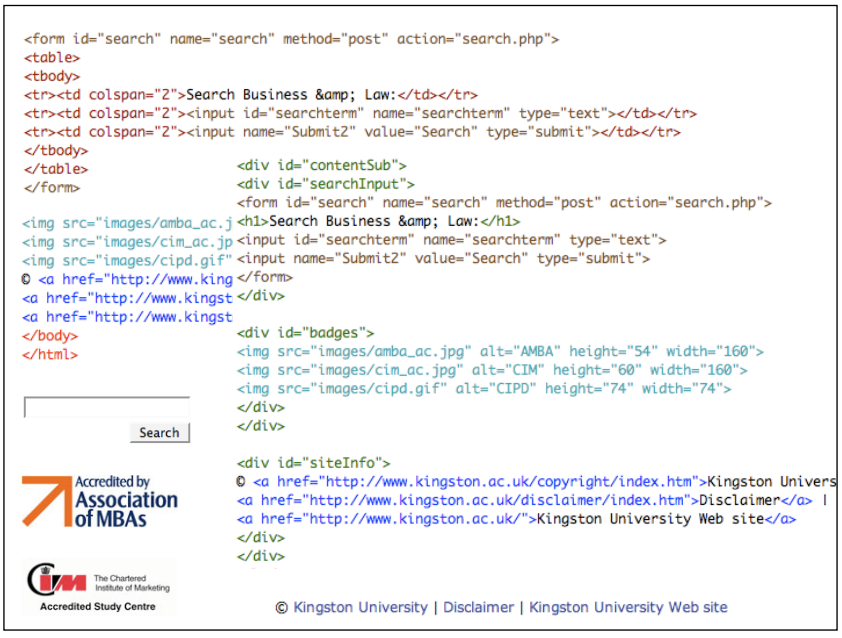
<form id="search" name="search" method="post" action="search.php">
<table>
<tbody>
<tr><td colspan="2">Search Business & Law:</td></tr>
<tr><td colspan="2"><input id="searchterm" name="searchterm" type="text"></td></tr>
<tr><td colspan="2"><input name="Submit2" value="Search" type="submit"></td></tr>
</tbody>
</table>
</form>

<form id="search" name="search" method="post" action="search.php">
<h1>Search Business & Law:</h1>
<input id="searchterm" name="searchterm" type="text">
<input name="Submit2" value="Search" type="submit">
</form>

<img src="images/amba_ac.jpg" alt="AMBA" height="54" width="160">
<img src="images/cim_ac.jpg" alt="CIM" height="60" width="160">
<img src="images/cipd.gif" alt="CIPD" height="74" width="74">

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Disclaimer |
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<img src="images/amba_ac.j
<img src="images/cim_ac.jp
<img src="images/cipd.gif"
© <a href="http://www.king
<a href="http://www.kingst
<a href="http://www.kingst
</body>
</html>
Search
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Accredited Study Centre
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Step	Action
1	Strip all CSS out
2	Only keep / apply semantic HTML
3	Mark out logical content blocks (div and span)
4	Create Overall CSS file
5	Normalise CSS
6	Create layout, colour, typography CSS

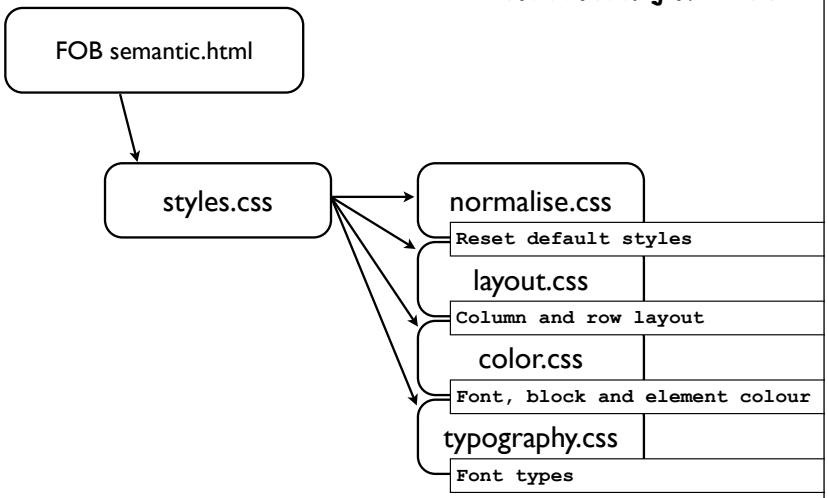
So ...

- external style sheet
- Add a link tag to the head of the HTML document

```
<link rel="stylesheet" type="text/css" href="styles.css" />
```

- A blank text file called styles.css

Structuring the CSS



- Rather than place the CSS in one file, split into 4 files

Adding multiple style files

- Can be done using @import url (filename);
- So styles.css looks like this

```
@import url(normalise.css);
@import url(layout.css);
@import url(color.css);
@import url(typography.css);
```

Step	Action
1	Strip all CSS out
2	Only keep / apply semantic HTML
3	Mark out logical content blocks (div and span)
4	Create Overall CSS file
5	Normalise CSS
6	Create layout, colour, typography CSS

normalise.css

```
/* Normalises margin,padding */
body, div, dl, dt, dd, ul, ol, li, h1, h2, h3, h4, h5, h6, pre, form, fieldset,input, p,
blockquote, th, td {
margin:0;
padding:0;
}

/* Normalises font size for headers */
h1, h2, h3, h4, h5, h6 {
font-size: 100%;
}

/* Removes list style from lists */
ol,ul {
list-style:none;
}

/* Normalises font-style and font-weight to normal */
address, caption, cite, code, dfn, em, strong, th, var {
font-style: normal;
font-weight:normal;
}

/* Removes borders from tables */
table {
border-collapse:collapse;
border-spacing:0;
}

/* Removes border from fieldset and img */
fieldset, img {
border:0;
}content: '';
}
```

Normalising

- Removing any default styles for elements
- Different browsers use slightly different presentation styles
- Uses 'tag style' to remove styles associated with every HTML element

Normalising

- Many different normalising files 'out there'

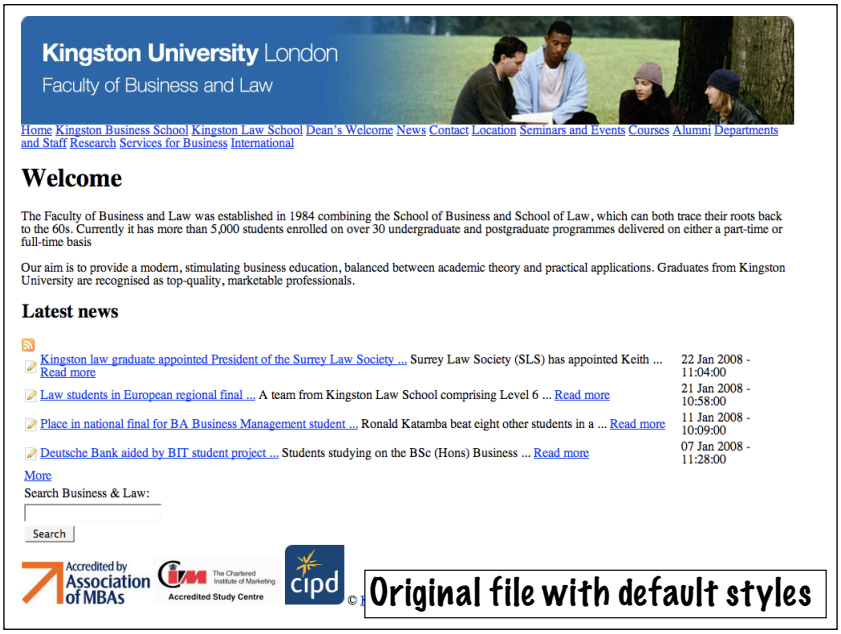
  http://developer . yahoo.com/yui/reset/

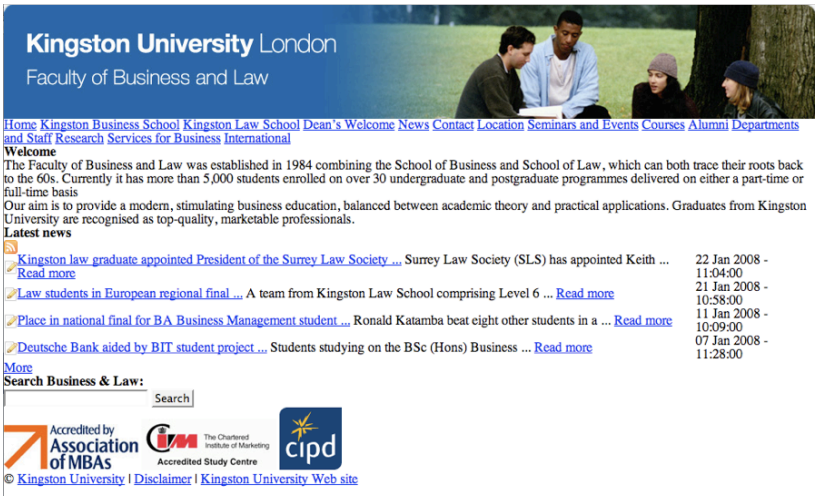
- References

  `http://meyerweb.com/eric/thoughts/2004/09/15/emreallyem-undoing-htmlcss/`

  `http://tantek.com/log/2004/09.html`

- Normalised files look slightly different

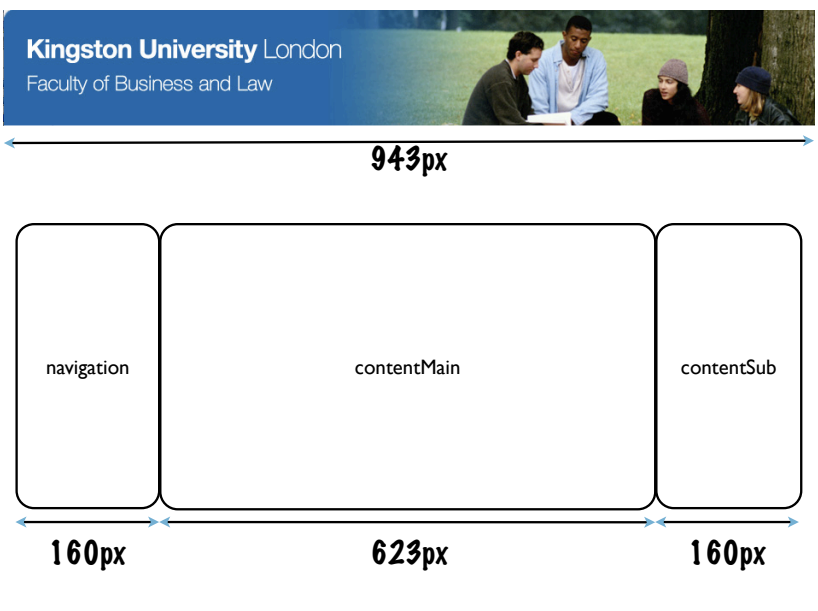




Normalised file

Step	Action
1	Strip all CSS out
2	Only keep / apply semantic HTML
3	Mark out logical content blocks (div and span)
4	Create Overall CSS file
5	Normalise CSS
6	Create layout, colour, typography CSS

6	Create layout, colour, typography CSS
6.1	Shape the containing blocks using widths, float and clear
6.2	Set overall fonts
6.3	Set margins, borders, padding for content areas
6.4	Style the content of each area
6.5	Overall tidying

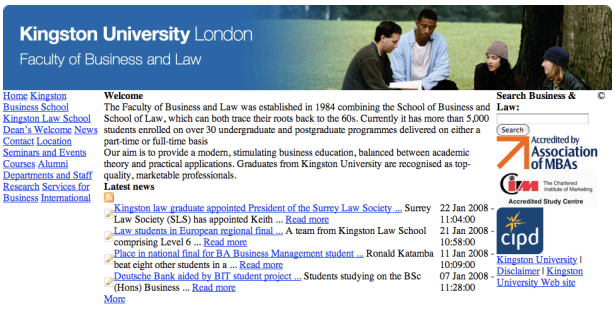


- Use layout.css to set width and float the columns

```
#navigation {
width: 160px;
float: left;
}

#contentMain {
width: 623px;
float: left;
}

#contentSub {
width: 160px;
float: left;
}
```



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More

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More

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- Use layout.css to clear siteInfo

```
#siteInfo {
clear: left;
}
```

6	Create layout, colour, typography CSS
6.1	Shape the containing blocks using widths, float and clear
6.2	Set overall fonts
6.3	Set margins, borders, padding for content areas
6.4	Style the content of each area
6.5	Overall tidying

So ... • Edit typography.css to set the body font

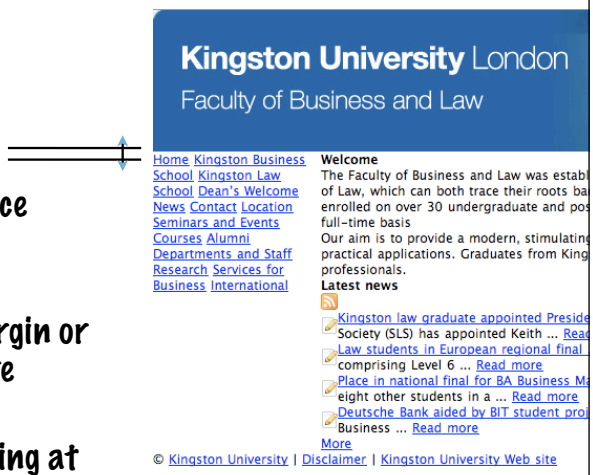
```
body {
    font: 12px "Lucida Grande", Lucida, Verdana, sans-serif;
}
```

- Will cascade down into all the enclosed elements

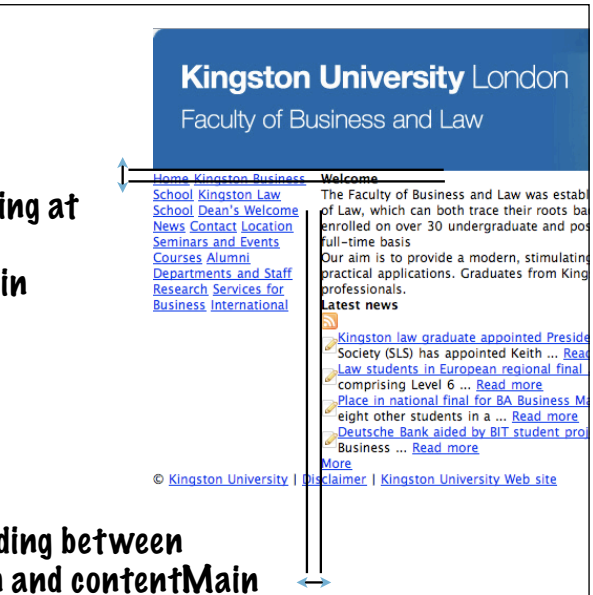
6	Create layout, colour, typography CSS
6.1	Shape the containing blocks using widths, float and clear
6.2	Set overall fonts
6.3	Set margins, borders, padding for content areas
6.4	Style the content of each area
6.5	Overall tidying

- branding box is fine for the moment

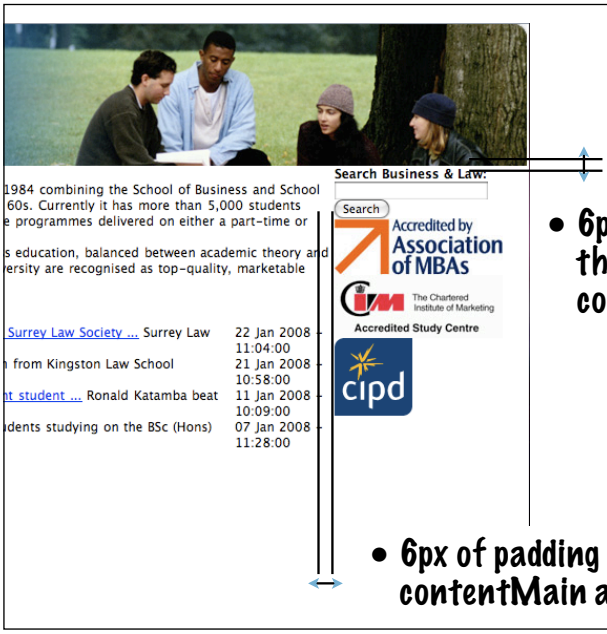
- Need to space these out
- Can use margin or padding here
- 6px of padding at the top of navigation



- 6px of padding at the top of contentMain
- 6px of padding between navigation and contentMain



- 6px of padding at the top of contentSub
- 6px of padding between contentMain and contentSub



- Use layout.css to set the padding

```
#navigation {
width: 160px;
float: left;
padding-top: 6px;
padding-right: 3px;
}

#contentMain {
width: 623px;
float: left;
padding-right: 3px;
padding-top: 6px;
padding-left: 3px;

}

#contentSub {
width: 160px;
float: left;
padding-top: 6px;
padding-left: 3px;
}
```

6	Create layout, colour, typography CSS
6.1	Shape the containing blocks using widths, float and clear
6.2	Set overall fonts
6.3	Set margins, borders, padding for content areas
6	Style the content of each area
6.5	Overall tidying

navigation styling

display: block

Home Kingston Business School Kingston Law School Dean's Welcome News Contact Location Seminars and Events Courses Alumni Departments and Staff Research Services for Business International

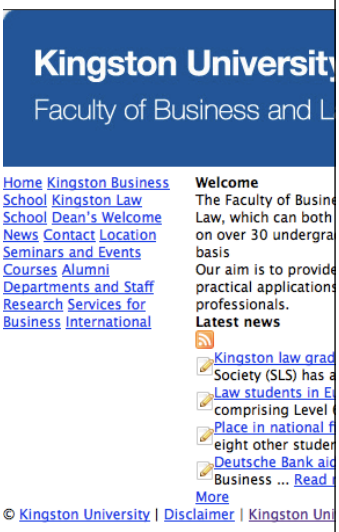
Home
Kingston Business School
Kingston Law School
Dean's Welcome
News
Contact
Location
Seminars and Events
Courses
Alumni
Departments and Staff
Research
Services for Business
International

display: block;
text-decoration: none;
min-height: 18px;
padding: 4px;

Home
Kingston Business School
Kingston Law School
Dean's Welcome
News
Contact
Location
Seminars and Events
Courses
Alumni
Departments and Staff
Research
Services for Business
International

- But in this instance we only want to style the anchors in the navigation area

CSS has a way of styling elements that are inside an id



Styling the navigation anchors

- Use the # symbol to indicate an id name in the style sheet followed by the element inside that id to be styled

id and element style

In layout.css

```
#navigation a {
display: block;
min-height: 18px;
padding: 4px;
}
```

In typography.css

```
#navigation a {
text-decoration: none;
}
```

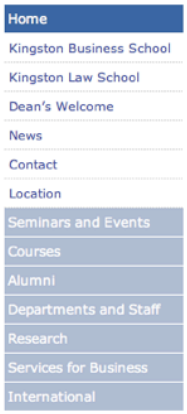
Problem: How to distinguish between the Home, Upper Menu and Lower Menu links?

Home
Kingston Business School
Kingston Law School
Dean's Welcome
News
Contact
Location
Seminars and Events
Courses
Alumni
Departments and Staff
Research
Services for Business
International

Home

Upper Menu

Lower Menu



Even though we try to avoid adding to the original HTML, we will have to in this case.

Choices: Use DIVs to mark up the sub areas

```
<div id=" ... ">
<a href="/index.php">Home</a>
</div>

<div id=" ... ">
<a href="/flavor2.php?id=320">Kingston Business School</a>
<a href="/flavor2.php?id=342">Kingston Law School</a>
<a href="/flavor2.php?id=295">Dean's Welcome</a>
<a href="/news.php">News</a>
<a href="/flavor2.php?id=293">Contact</a>
<a href="/flavor2.php?id=294">Location</a>
</div>

<div id=" ... ">
<a href="/events.php">Seminars and Events</a>
<a href="/flavor2.php?id=378">Courses</a>
<a href="/flavor2.php?id=323">Alumni</a>
...
```

Too much extra markup?

Lost the flow of 'links'?

Use a class instead

- Edit the original source to include classes
- Semantic names would be better, but none available

```
<div id="navigation">
<a class="home" href="/index.php">Home</a>
<a class="upperMenu" href="/flavor2.php?id=320">Kingston Business School</a>
<a class="upperMenu" href="/flavor2.php?id=342">Kingston Law School</a>
<a class="upperMenu" href="/flavor2.php?id=295">Dean's Welcome</a>
<a class="upperMenu" href="/news.php">News</a>
<a class="upperMenu" href="/flavor2.php?id=293">Contact</a>
<a class="upperMenu" href="/flavor2.php?id=294">Location</a>
<a class="lowerMenu" href="/events.php">Seminars and Events</a>
<a class="lowerMenu" href="/flavor2.php?id=378">Courses</a>
<a class="lowerMenu" href="/flavor2.php?id=323">Alumni</a>
<a class="lowerMenu" href="/flavor2.php?id=319">Departments and Staff</a>
<a class="lowerMenu" href="/flavor2.php?id=351">Research</a>
<a class="lowerMenu" href="/flavor2.php?id=327">Services for Business</a>
<a class="lowerMenu" href="/flavor2.php?id=321">International</a>
</div>
```

Styling the navigation anchors (cont)

- Use the . symbol to indicate a class name in the style sheet

Edit color.css

```
#navigation a.home {
color:  #fff;
background-color: #00529B;
}

#navigation a.upperMenu {
color:  #00529B;
}

#navigation a.lowerMenu {
color:  #fff;
background-color: #9AAFCD;
}
```

Edit layout.css

```
#navigation a.upperMenu {
border-bottom-style: dotted;
border-bottom-width: 1px;
}

#navigation a.lowerMenu {
border-bottom-style: dotted;
border-bottom-width: 1px;
}
```

Styling contentMain

- Edit typography.css

```
#contentMain h1 {
color: #00529B;
font-size: 14px;
margin-bottom: 5px;
}

#contentMain p {
margin-bottom: 10px;
text-align: justify;
}
```

Welcome

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Styling news header

- Edit typography.css

```
#news h2 {
color: #CB6F0B;
font-size: 14px;
margin-right: 5px;
}
```

- Edit layout.css

```
#news h2 {
display: inline;
}
```

Latest news

Kingston law graduate appointed Society (SLS) has appointed Keith

Law students in European regiona

Latest news

Kingston law graduate ap Society (SLS) has appoint

Law students in Europea

Styling news table

Problem: How to distinguish between the icon, the story and story date?

Kingston law graduate appointed President of the Surrey Law Society ... Surrey Law Society (SLS) has appointed Keith ... Read more		22 Jan 2008 - 11:04:00
Law students in European regional final ... A team from Kingston Law School comprising Level 6 ... Read more		21 Jan 2008 - 10:58:00
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Deutsche Bank aided by BIT student project ... Students studying on the BSc (Hons) Business ... Read more		07 Jan 2008 - 11:28:00

icon story story date

Use classes in the HTML

Styling news table

- Edit the original source to include the following classes

```
<table>
<tbody>
<tr><td class="icon"><img src="images/report.gif" alt="news_icon"></td>
    <td class="story"><a href="/news_item.php?id=82">
        Kingston law graduate appointed President of the Surrey Law Society ...</a>
        Surrey Law Society (SLS) has appointed Keith ...
        <a href="/news_item.php?id=82">Read more</a></td>
    <td class="storyDate">22 Jan 2008 - 11:04:00</td>
</tr>
<tr><td class="icon"><img src="images/report.gif" alt="news_icon"></td>
    <td class="story"><a href="/news_item.php?id=81">
        Law students in European regional final ...</a>
        A team from Kingston Law School comprising Level 6 ...
        <a href="/news_item.php?id=81">Read more</a></td>
    <td class="storyDate">21 Jan 2008 - 10:58:00</td>
</tr>
<tr><td class="icon"><img src="images/report.gif" alt="news_icon"></td>
    <td class="story"><a href="/news_item.php?id=80">
        Place in national final for BA Business Management student ...</a>
        Ronald Katamba beat eight other students in a ...
        <a href="/news_item.php?id=80">Read more</a></td>
    <td class="storyDate">11 Jan 2008 - 10:09:00</td>
</tr>
....etc
```

Styling news table

- Edit layout.css

```
#news td.icon {
width: 25px;
}

#news td.story {
padding-bottom: 8px;
}

#news td.storyDate {
width: 150px;
}
```

Kingston law graduate appointed President of the Surrey Law Society ... Surrey Law Society (SLS) has appointed Keith ... Read more — 22 Jan 2008 - 11:04:00

Law students in European regional final ... A team from Kingston Law School comprising Level 6 ... Read more — 21 Jan 2008 - 10:58:00

Place in national final for BA Business Management student ... Ronald Katamba beat eight other students in a ... Read more — 11 Jan 2008 - 10:09:00

Deutsche Bank aided by BIT student project ... Students studying on the BSc (Hons) Business ... Read more — 07 Jan 2008 - 11:28:00

More

Styling contentSub

- Edit layout.css

```
#contentSub h1 {
padding: 3px;
}

#badges {
text-align:center;
}

#badges img {
margin-top: 20px;
}
```

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- Edit color.css

```
#contentSub h1 {
color: #fff;
background-color: #00529B;
}
```

Styling siteInfo

- Edit layout.css

```
#siteInfo {
text-align: center;
}
```

Services for Business
International
More

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International

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Original

XHTML + CSS version

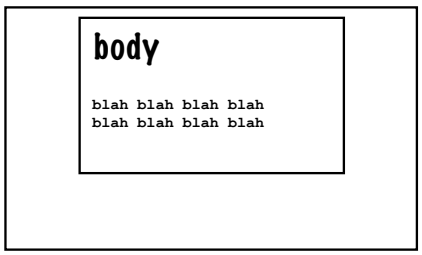
6	Create layout, colour, typography CSS
6.1	Shape the containing blocks using widths, float and clear
6.2	Set overall fonts
6.3	Set margins, borders, padding for content areas
6.4	Style the content of each area
7	Overall tidying

Seventeen Placing content in centre of browser

- Edit layout.css

```
html {
text-align:center;
}

body {
position:relative;
width:966px;
margin: 0 auto;
text-align: left;
}
```

Browser window



Placing border around whole content

```
<div id="content">
```

```
</div>
```

Placing border around whole content

- Edit Source

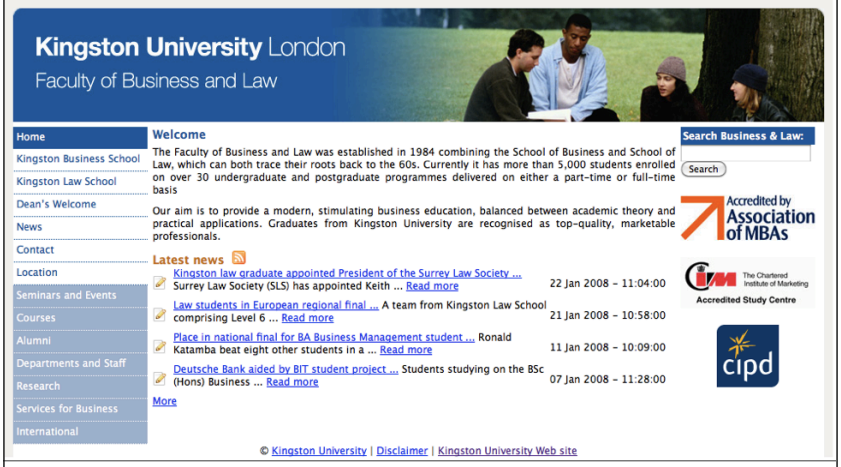
Add a new div container for the whole document

```
<body>

<div id="content">

<div id="branding">
<img src="images/logo_index.jpg" alt="logo"

.....

<div id="siteInfo">
© <a href=....
<a href=....
<a href=....
</div>

</div>
</body>
</html>
```

- Edit layout.css to add a coloured frame

```
#content {
width: 100%;
border-width:10px;
border-color: #F1F0EE;
border-top-style:solid;
border-right-style:solid;
border-left-style:solid;
}
```

Final XHTML + CSS version



Version comparison

Original	New version
Content in with design	Separate files
Unreadable	Readable
Long	Short
Unmaintainable	Maintainable
Not standards compliant	Standards compliant

How the web works - 2

Transmission Control Protocol / Internet Protocol

Domain Name System

Names and Numbers

Translating between names

www. google. com

To numbers

74. 125. 77. 103

Problems with TCP/IP

Numbering system not intuitive

148. 87 .9 .44

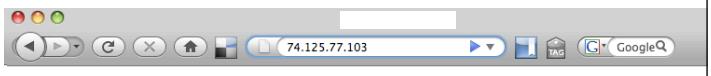
141. 241. 2. 11

Can't work out location, service or even remember easily

Names much better

Can work out location, service and remember easily

What happens when you browse?



Of course - can't really be seen like this

Web Browser software

Server on the internet

192. 0. 0. 1 <----------> 148. 87. 9. 44

Simplest way to implement the conversion

Use a text file with columns of names and IP numbers

```
localhost              127.0.0.1
www.oracle.com         148.87.9.44
```

A simple lookup process converts the name to number

Called the hosts file

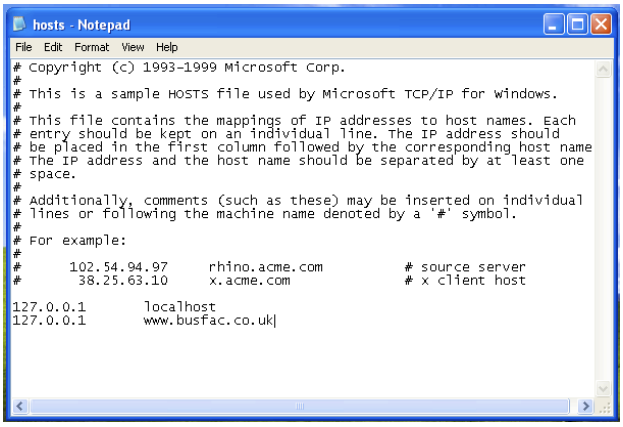
This file still exists on machines today and is checked before the DNS/BIND system is used

Demo

- Changing a hosts file to associate a name with an IP number
- Using ping command to see if it works

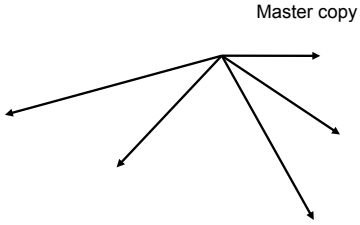
Demo

- Changing a hosts file to associate a name with an IP number



Works for very small number of machines

- Have one copy of the hosts file held centrally
- Regularly copied to other machines



Obvious problems

- Doesn't scale well
- Synchronisation problems
- How do names outside the domain get managed
- Name collisions / management problems

So: DNS and BIND

Domain Name System	Standard
Berkeley Internet Name Domain	Software

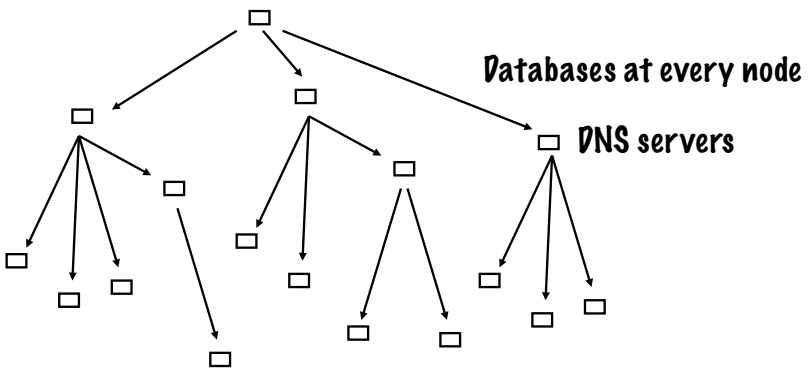
So: DNS and BIND

A distributed database system initially invented by Paul Mockapetris

RFCs 882, 883, 1034, 1035 + others

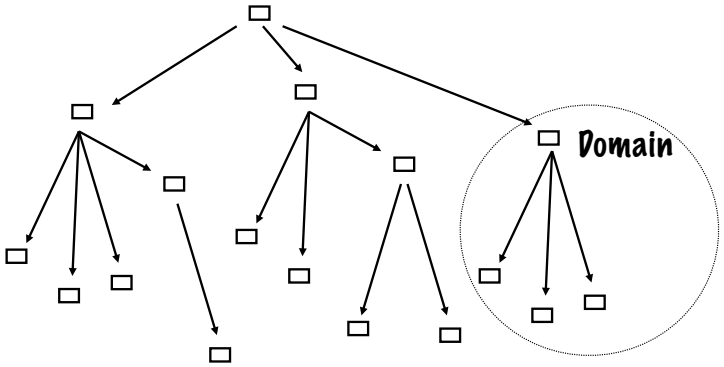
BIND is the most popular software for DNS

DNS can be visualised as an inverted tree

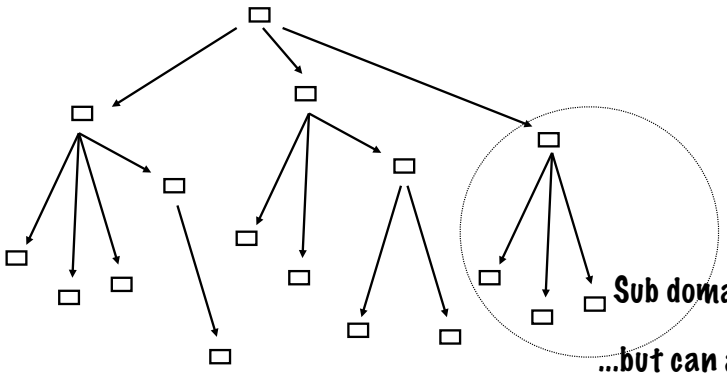


Other terms used

Top level DNS servers

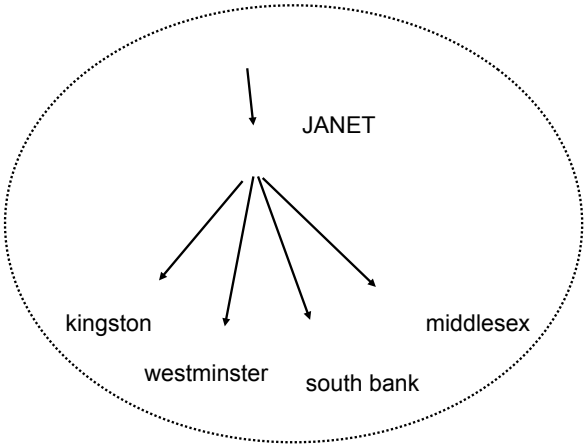


Other terms used



Domains and sub domains

academic domain .ac.uk Run by JANET

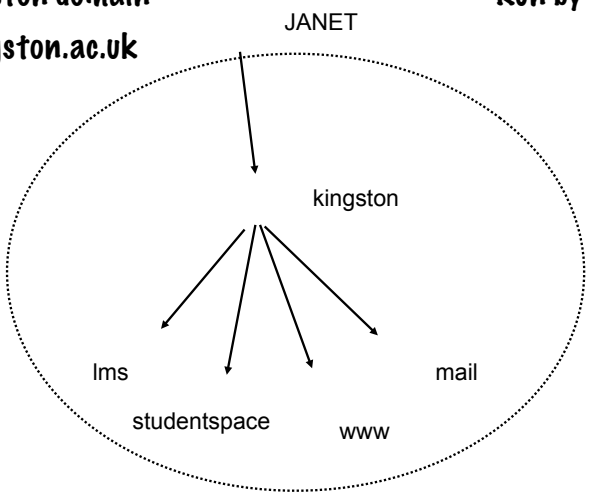


Domains and sub domains

kingston domain

kingston.ac.uk

Run by Kingston



Note how names are formed

- names formed from right to left
- we control the names in our domains

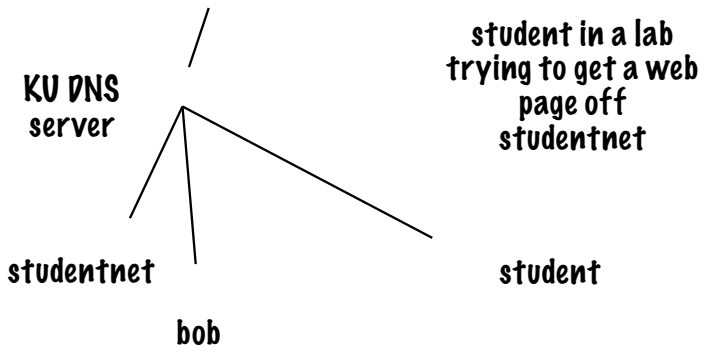
- if we have a computer called bob
- if westminster have a computer called bob

No name conflict

bob.kingston.ac.uk

bob.westminster.ac.uk

So how does name resolution work? Local example



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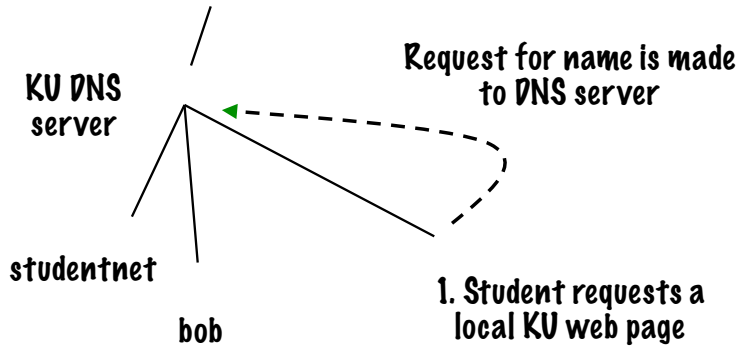

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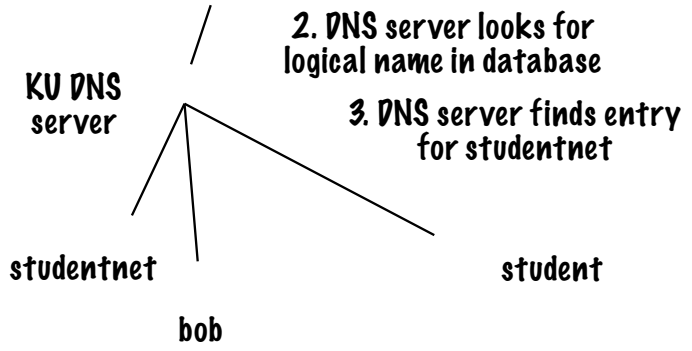

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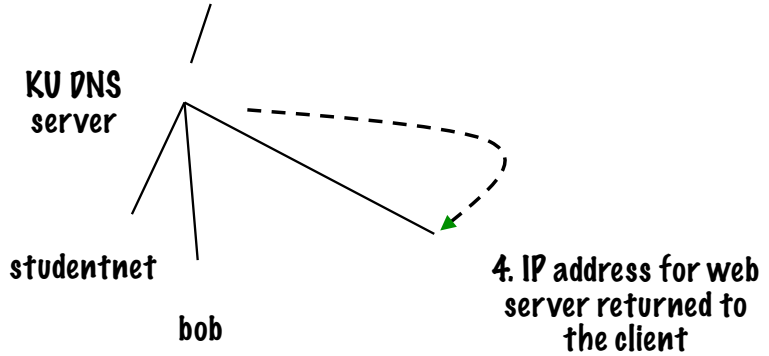
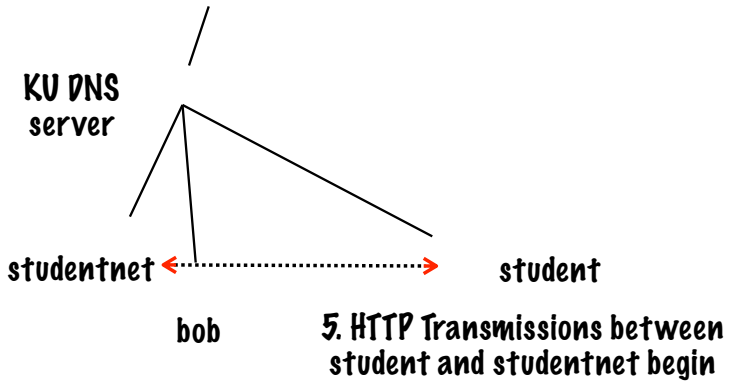
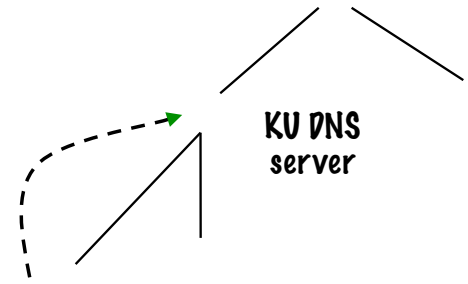
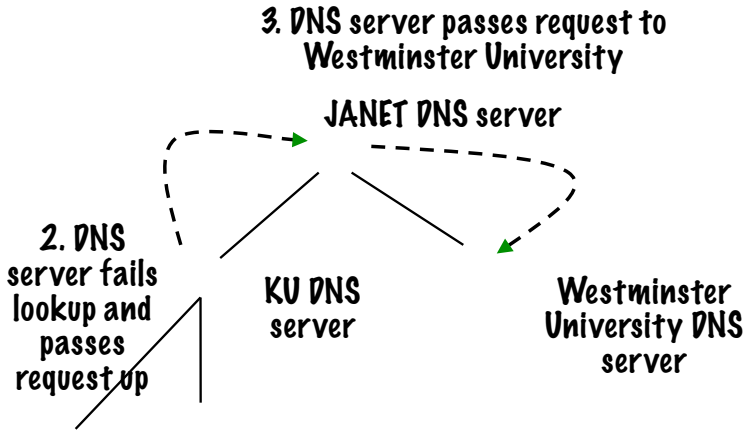


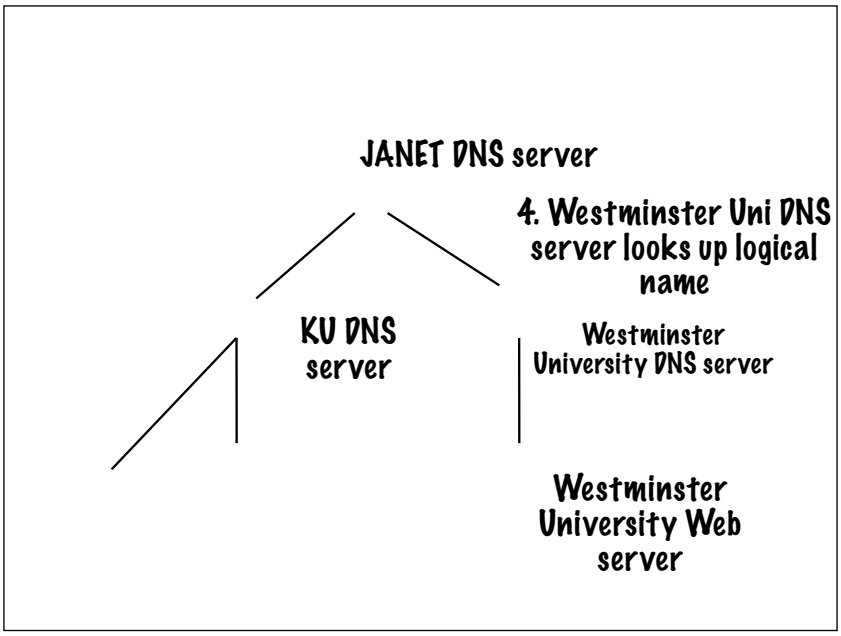
So how does name resolution work? Local example

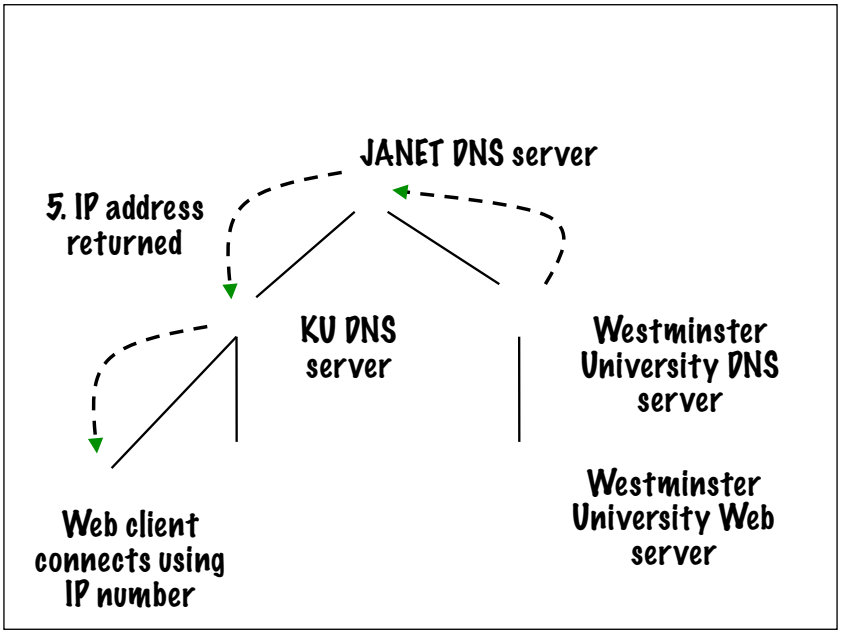


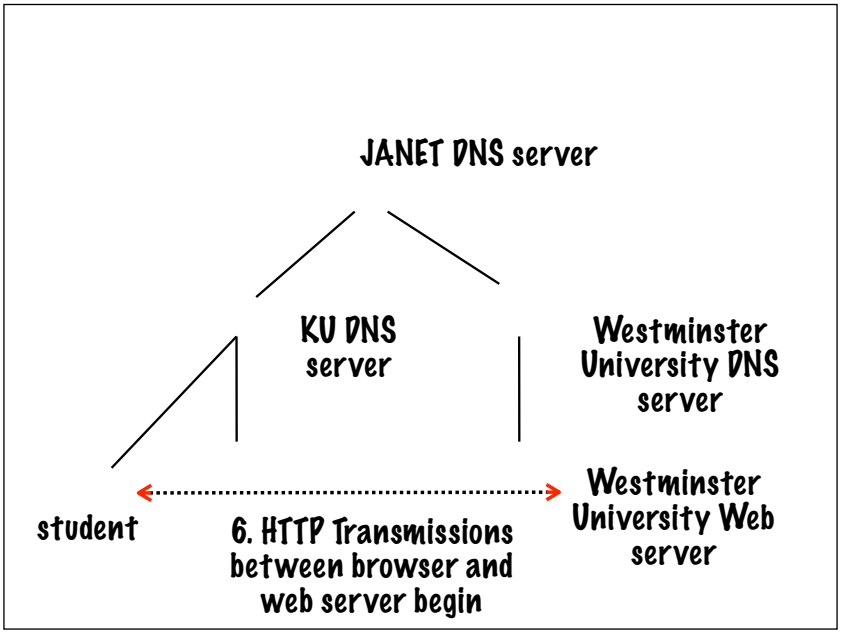
Name resolution - JANET domain example



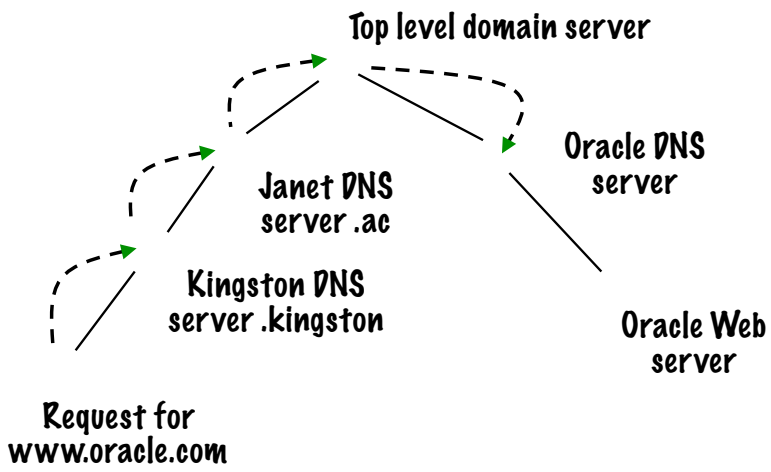



JANET DNS server
4. Westminster Uni DNS server looks up logical name
KU DNS server
Westminster University DNS server
Westminster University Web server


JANET DNS server
5. IP address returned
KU DNS server
Westminster University DNS server
Westminster University Web server
Web client connects using IP number


JANET DNS server
KU DNS server
Westminster University DNS server
Westminster University Web server
student
6. HTTP Transmissions between browser and web server begin

Name resolution – top level domain example



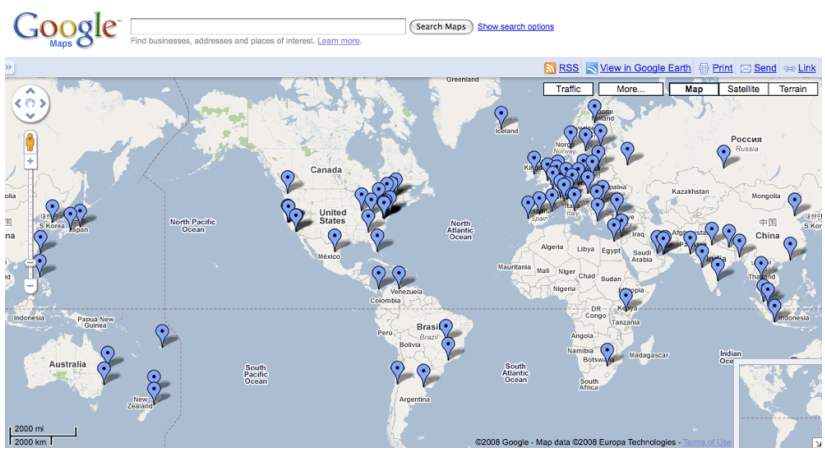
Points to note

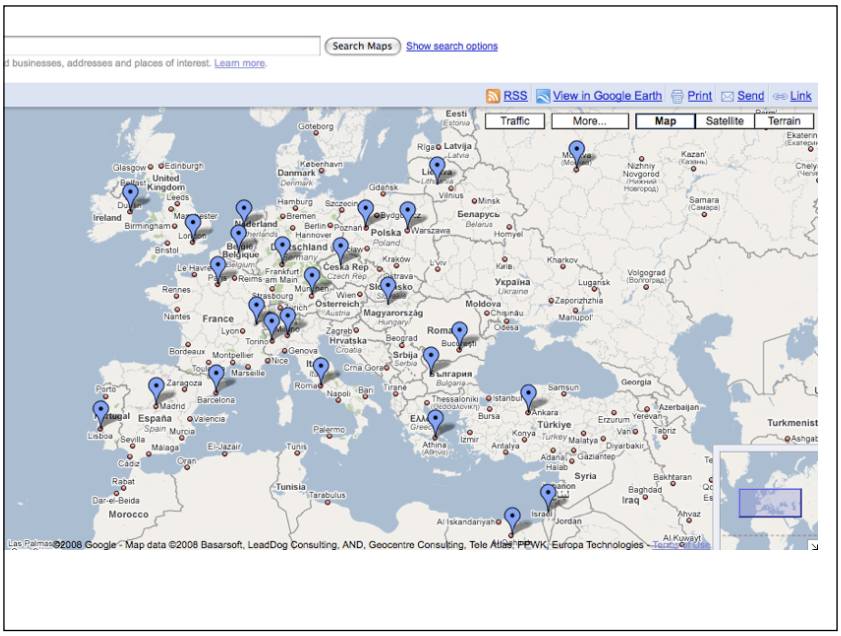
Queries only travel up the tree as far as needed

Each DNS server has link to next level up

Cache at each level can reduce the amount of traffic

In fact many top level servers (replicated to overcome failures)

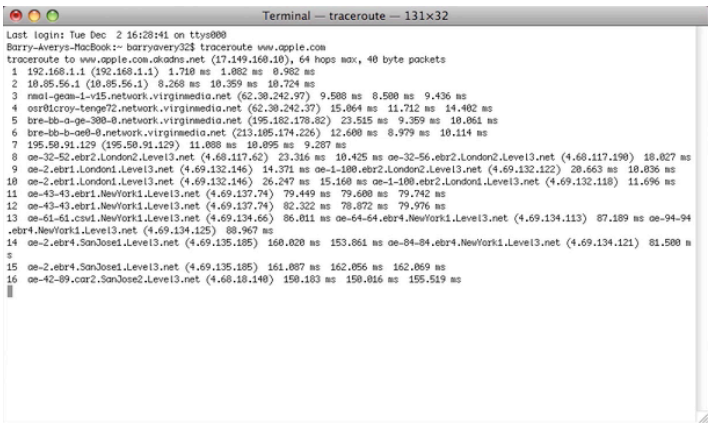




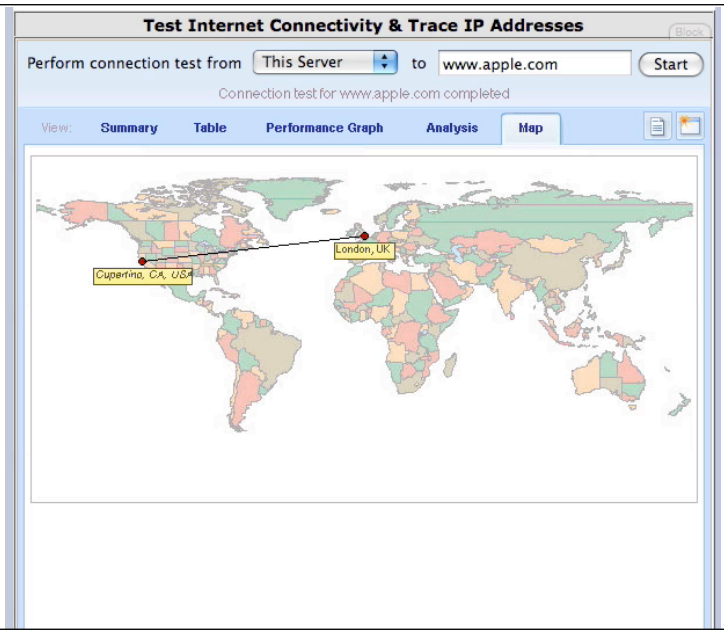
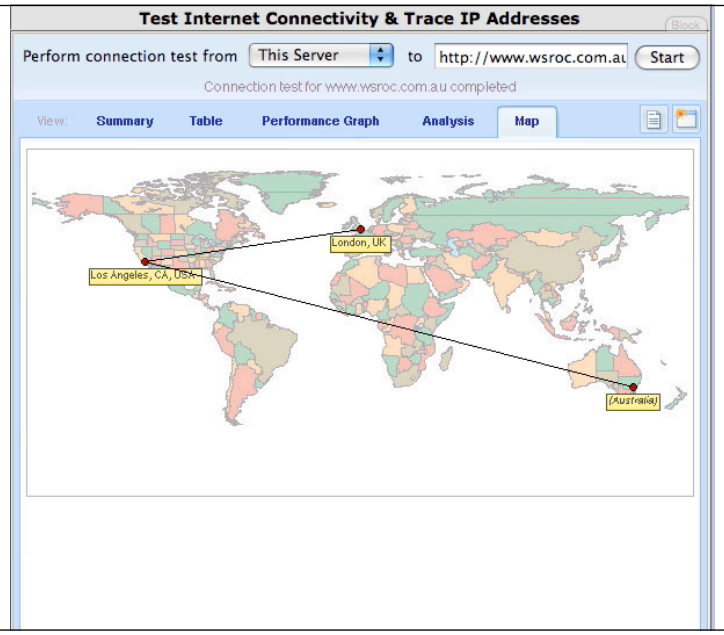
Things to try at home

traceroute name

Shows the route and time taken for the hops



Things to try at home

http://visualroute.visualware.com/

Visually shows the route and time taken for the hops