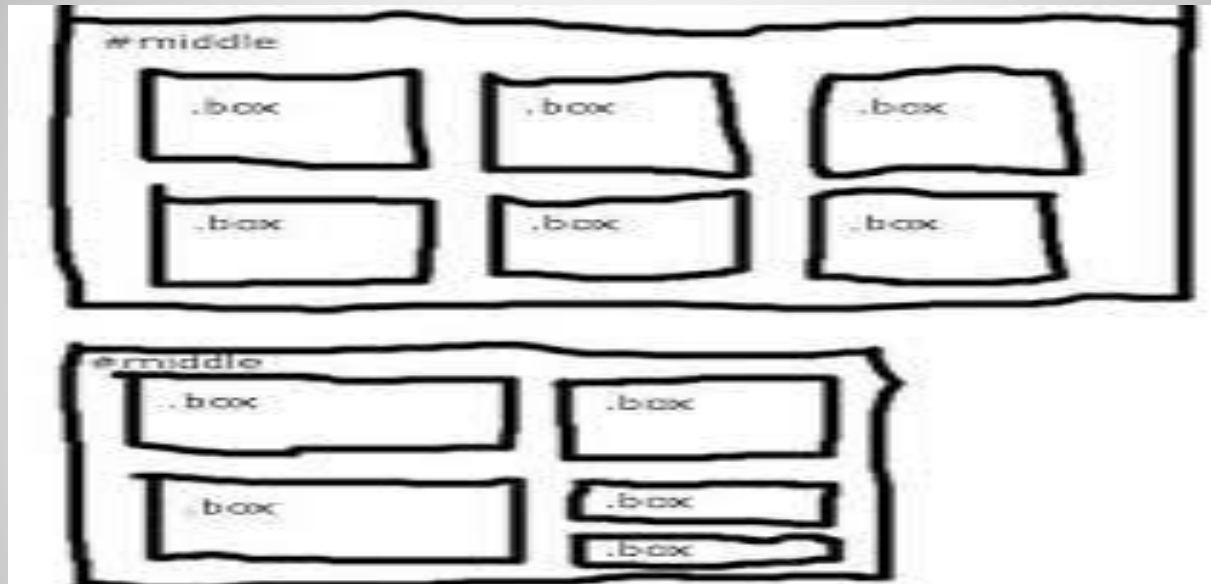# Web Development Introduction

Using Flex boxes revisited
Lecturer: Marie Brennan

Sophisticated horizontal nav bars

- In this week's class we are going to learn how to:
  - style unorderd lists into professional looking horizontal navigation bars "navbars"
- Different strategies
  - *float: left/right*
  - *display: inline-block*
  - *display: flex*

- We'll learn to use:

  ```
  display: flex;
  ```

- REMEMBER: you must test using Google Chrome !

The 4 rules for effective use of: Unordered lists for navbars

- The 4 steps for simple (vertical) navigation bars
  1. remove bullets and margins and padding
  2. <a> display as blocks
  3. <a> define :hover style
  4. <a> define .current_page style
  + (add some pretty CSS colors/padding/border etc.)

- Two new steps:
  - Make list block <ul> a flex box container
  - Make the list items <li> share space flexibly

RECAP –

Steps 1 – 4 for simple nav bars

Nav lists …

- Features of unordered lists:
  - Indentation of whole list
  - Bullet points

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <title>IT Blanchardstown</title>
</head>

<body>

<nav>
    <ul>
        <li><a href="index.html">home</a></li>
        <li><a href="about.html">about</a></li>
        <li><a href="products.html">products</a></li>
        <li><a href="contact.html">contact</a></li>
    </ul>
</nav>

</body>
</html>
```

- • home
- • about
- • products
- • contact

- Use CSS to <u>remove spacing and bullet points</u>:

- Note – descendent selector
  - So only <ul> inside <nav> affected …

```css
nav ul {
        margin: 0;
        padding: 0;
        list-style-style: none;
}
```

home
about
products
contact

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <title>IT Blanchardstown</title>
</head>

<body>

<nav>
    <ul>
        <li><a href="index.html">home</a></li>
        <li><a href="about.html">about</a></li>
        <li><a href="products.html">products</a></li>
        <li><a href="contact.html">contact</a></li>
    </ul>
</nav>

</body>
</html>
```

```css
nav ul {
        margin: 0;
        padding: 0;
        list-style-style: none;
}
```

home

about

products

contact

step 2

display <a> as block

```
nav ul {
        margin: 0;
        padding: 0;
        list-style-style: none;
}
```

step 1

```
nav ul li a {
        display: block;
        background-color: yellow;
        padding: 1em;
        border: 1px solid black;
}
```

step 2

home

about

products

contact

step 3 style a:hover for link when mouse over

step 1

step 2

```css
nav ul {
        margin: 0;
        padding: 0;
        list-style-style: none;
}
```

```css
nav ul li a {
        display: block;
        background-color: yellow;
        padding: 1em;
        border: 1px solid black;
}
```

```css
/* step 3 - :hover style for links */

nav ul li a:hover {
        background-color: black;
        color: yellow;
        text-decoration: none;
}
```

home

about

products

Slide 8

contact

style current page differently

```
nav ul {
        margin: 0;
        padding: 0;
        list-style-style: none;
}
```

```
nav ul li a {
        display: block;
        background-color: yellow;
        padding: 1em;
        border: 1px solid black;
}
```

step 2

```
/* step 3 - :hover style for links
nav ul li a:hover {
        background-color: black;
        color: yellow;
        text-decoratic
}
```

step 3

step 4

```
<li>
  <a href="about"
     class="current_page">about</a>
</li>
```

```
nav ul li a.current_page {
        background-color: pink;
}
```

step 4

home

about

Slide 9

Make <ul> block a FLEX container

- At the core of horizontal navbars is a list that is a flex box:

```
nav ul {
    display: flex;
}
```

- Note – at present the ITB Chrome version is a little old, so you also need to write the –webkit- version of the CSS property

```
nav ul {
 display: flex;
 display: -webkit-flex;
}
```

Make <li> items expand (flex) to use up extra space

- If all list items have flex ratio of '1', they will all take an equal share of remaining horizontal space
- So the list items will expand to 'spread' out

```
nav ul li {

    flex: 1;

}



/* can shorten, if only ever one list in your
'nav' blocks */

nav li {

    flex: 1;

}
```

- Note – at present the ITB Chrome version is a little old, so you also need to write the –webkit- version of the CSS property

```
nav ul li {

    flex: 1;

    -webkit-flex: 1;

}
```

a basic horizontal navigation bar
using a FLEX 'ul' containing block (so 'li' items can stack up horizontally on the same line) and each 'li'
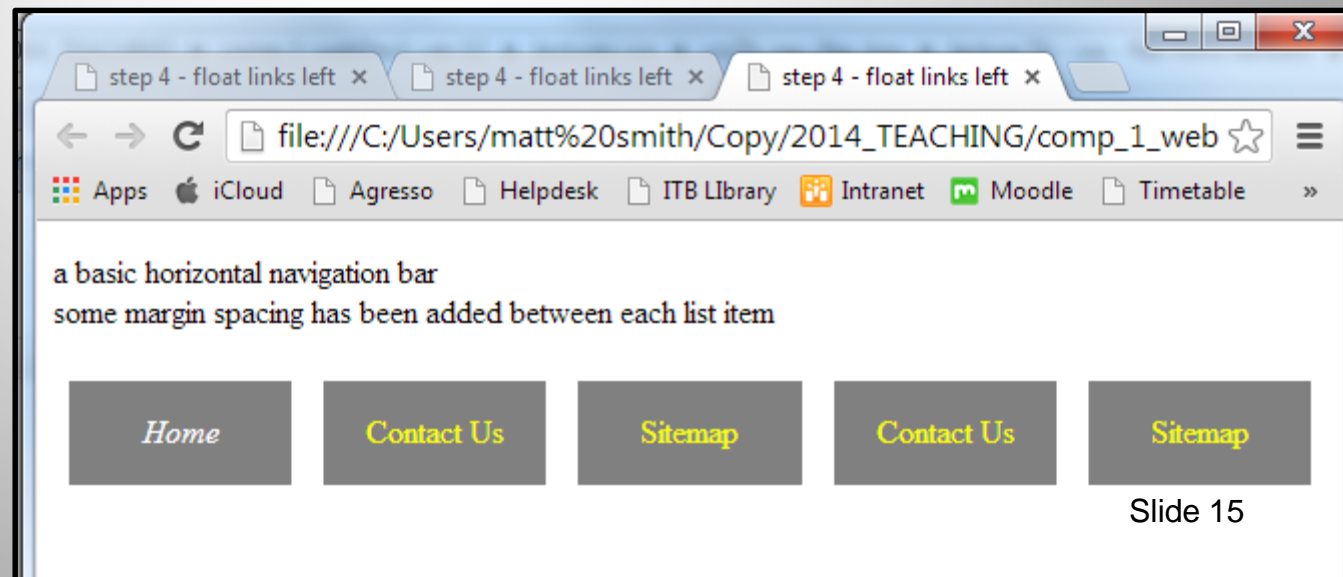element stretches to use up spare spacing

| Home | Contact Us | Sitemap | Contact Us | Sitemap |

- Above – basic horizontal navbar
- Below – some margin spacing added between each item

```
nav li {

    margin: 0.5em;

}
```

step 4 - float links left   step 4 - float links left   step 4 - float links left

file:///C:/Users/matt%20smith/Copy/2014_TEACHING/comp_1_web

Apps   iCloud   Agresso   Helpdesk   ITB LIbrary   Intranet   Moodle   Timetable   »

a basic horizontal navigation bar
some margin spacing has been added between each list item

| Home | Contact Us | Sitemap | Contact Us | Sitemap |

Summary and Conclusions
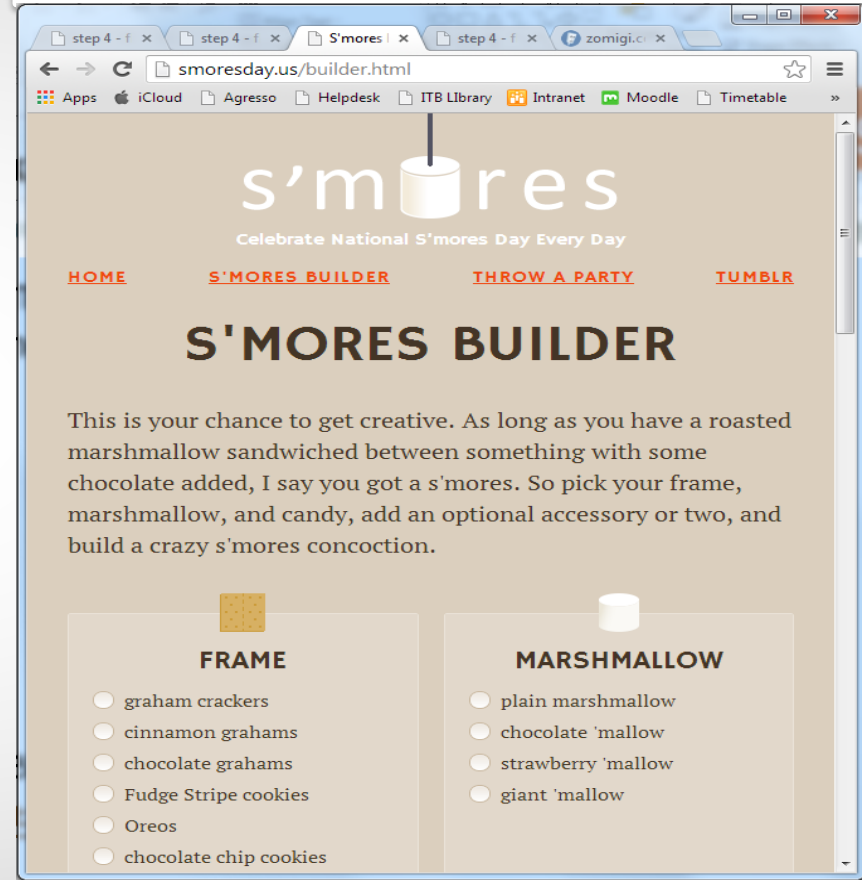
- 2 simple rules
  - one for 'parent' , and one for 'child'

```
nav ul {

    display: flex;

}
nav li {

    flex: 1;

}
```

- To learn more see:
  - http://smoresday.us/builder.html

To cope with older Chrome version
add the –webkit- version of each CSS property

```css
nav ul {
        display: flex;
        display: -webkit-flex;
}


nav li {
        flex: 1;
        -webkit-flex: 1;
}
```

Great CSS presenations by: zomigi.com
Zoe Mickley Gillenwater = ZO (e) MI (ckley) GI (llenwater)

- If you want to get an idea of where CSS is going soon ...

- lots of up to date CSS - including flex box
  - http://zomigi.com/events/blend-conference/
  - http://www.slideshare.net/zomigi/the-future-of-css-layout

- list of Zoe's presentations:
  - http://zomigi.com/speaking/

- And not forgetting 'smores day' website demo of flex ...
  - `http://smoresday.us/builder.html`

Wrapping of items for narrow windows ...

Enable 'wrapping' of nav items if a narrow browser window …
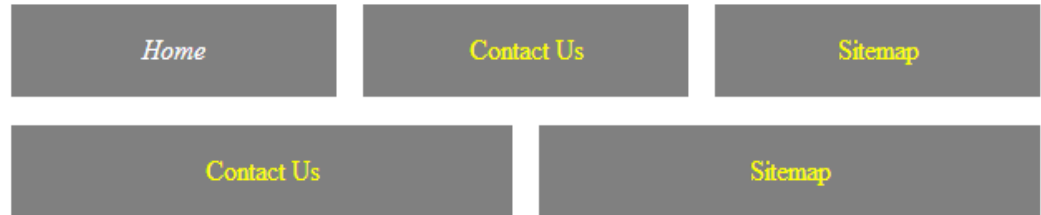
- 2 simple rules
  - one for 'parent' : wrap items if they cannot all fit
  - and one for 'child' : set minimum width for items

allow WRAPPING (onto next line) of the flex'd items inside 'ul'
NOTE: need to set MIN width greater than default 0px, to allow WRAP of nav bar items when browser window is narrow

try changing the WIDTH of this browser window ......
and see the nav bar items 'wrap' onto the next line
(and automatically stretch to use up all the width :-)

Home	Contact Us	Sitemap
Contact Us		Sitemap

```
nav ul {
    display: flex;
    flex-wrap: wrap;
}


nav ul li {
    flex: 1 0 12em;
} /* could replace '12em' with '200px' etc. */
```

And here is –webkit- version …

```
nav ul {
 display: flex;
 display: -webkit-flex;
 flex-wrap: wrap;
 -webkit-flex-wrap: wrap;
}
nav ul li {
 flex: 1 0 12em;
 -webkit-flex: 1 0 12em;
}
```
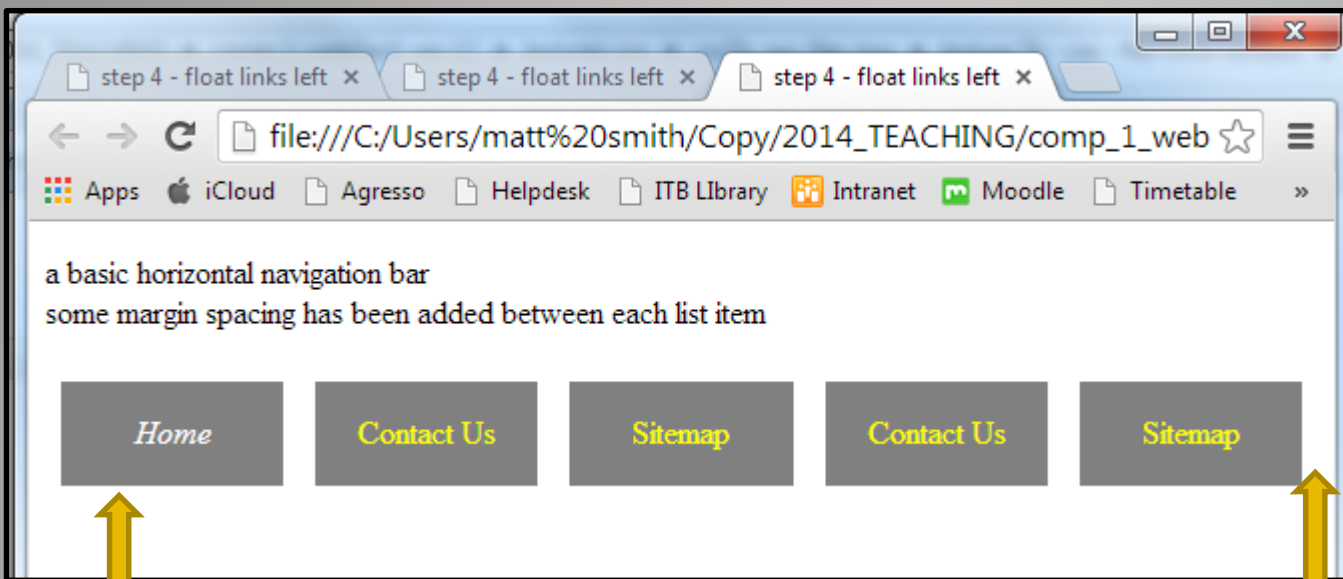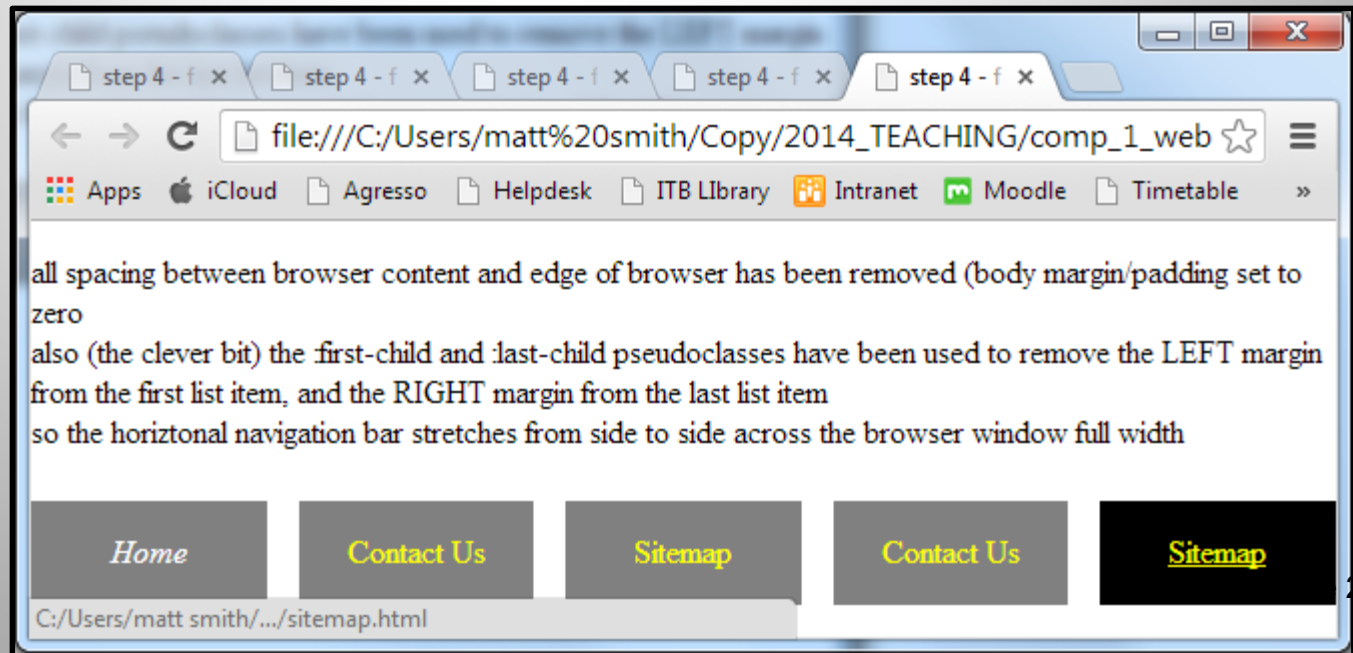
Something a bit clever …

Removing left and right margins with pseudoclasses

So navbar FULL WIDTH available

- We can remove LEFT margin for FIRST list item
- And remove RIGHT margin for LAST list item

The solution ...

```css
/* remove padding/margin around all of 'body'
   for that 'edge to edge' browser effect    */
body {
    margin: 0;
    padding: 0;
}



nav li:first-child {
    margin-left: 0;
}



nav li:last-child {
    margin-right: 0;
}
```