Week5- Topics

CSS positioning

CSS Boxes

CSS treats each HTML element as if it is in its own box

Control the appearance of each box:

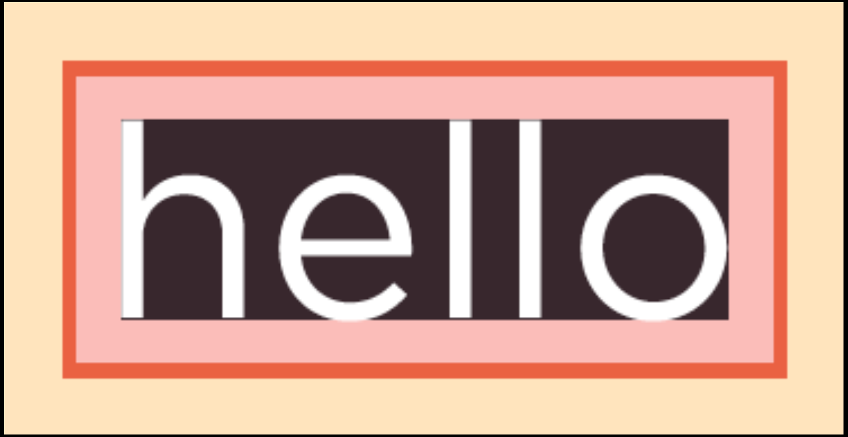
- Dimensions
- Borders
- Margins & padding
- Show & hide

CSS Boxes

Border

Margins – outside the border

Padding – space between the border and the content



CSS Boxes

```
height: 300px;
width: 300px;

min-width: 450px;
max-width: 650px;

min-height: 10px;
max-height: 30px;

overflow: hidden;
overflow: scroll;
```

CSS Boxes

border-width:

thin
medium
thick

border-top-width
border-right-width
border-bottom-width
border-left-width

```
p.one {
        border-width: 2px;}
p.two {
        border-width: thick;}
p.three {
        border-width: 1px 4px 12px 4px;}
```

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border-style:

```
p.one {border-style: solid;}
p.two {border-style: dotted;}
p.three {border-style: dashed;}
p.four {border-style: double;}
p.five {border-style: groove;}
p.six {border-style: ridge;}
p.seven {border-style: inset;}
p.eight {border-style: outset;}
```

ex.css_border_style.html

border-color:

border-top-color
border-right-color
border-bottom-color
border-left-color

```
p.one {
        border-color: #0088dd;}
p.two {
        border-color: #bbbbaa #111111 #ee3e80 #0088dd;}
```

border:

width, style and color in that specific order

```
p {
        width: 250px;
        border: 3px dotted #0088dd;}
```

padding:

Space between the content of an element and its border

Most often - px

padding-top

padding-right

padding-bottom

padding-left

```
p.example {
        padding: 10px;}
```

margin:

Space between the boxes

Most often - px

margin-top

margin-right

margin-bottom

margin-left

```
p.example {
        margin: 20px;}
```

margin:

Space between the boxes (most often – px)

margin-top

margin-right

margin-bottom

margin-left

clockwise order: top, right, bottom, left

```
p.example {
        margin: 20px;}
p.example2 {
        margin: 1px 2px 3px 4px; }
```

Centering boxes

- set a width for the box (otherwise it will take up the full width of the page)
- setting the left and right margins to auto will make the browser put an equal gap on each side of the box
- for older browsers the element that the box sits inside should have a text-align property with its value set to center

display:

converts inline elements into a block-level elements or vice versa

inline

block

inline-block

causes a block-level element to flow like an inline element, while retaining other features of a block-level element

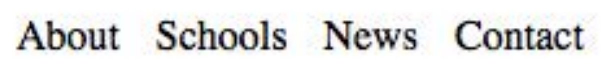
none

hides element form the page

display:

```html
<ul>
<li>Home</li>
<li>Products</li>
<li class="coming-soon">Services</li>
<li>About</li>
<li>Contact</li>
</ul>
```

```css
li {
        display: inline;
        margin-right: 10px;}
li.coming-soon {
        display: none;}
```


About Schools News Contact

display:

hide boxes but leaves a space where the elements would have been

a blank space will appear in place of an element

hidden

visible

Ex. css_display.html

visibility:

```
<ul>
<li>Home</li>
<li>Products</li>
<li class="coming-soon">Services</li>
<li>About</li>
<li>Contact</li>
</ul>
```

```
li {
        display: inline;
        margin-right: 10px;}
li.coming-soon {
        visibility: hidden;}
```

CSS layout

Layout

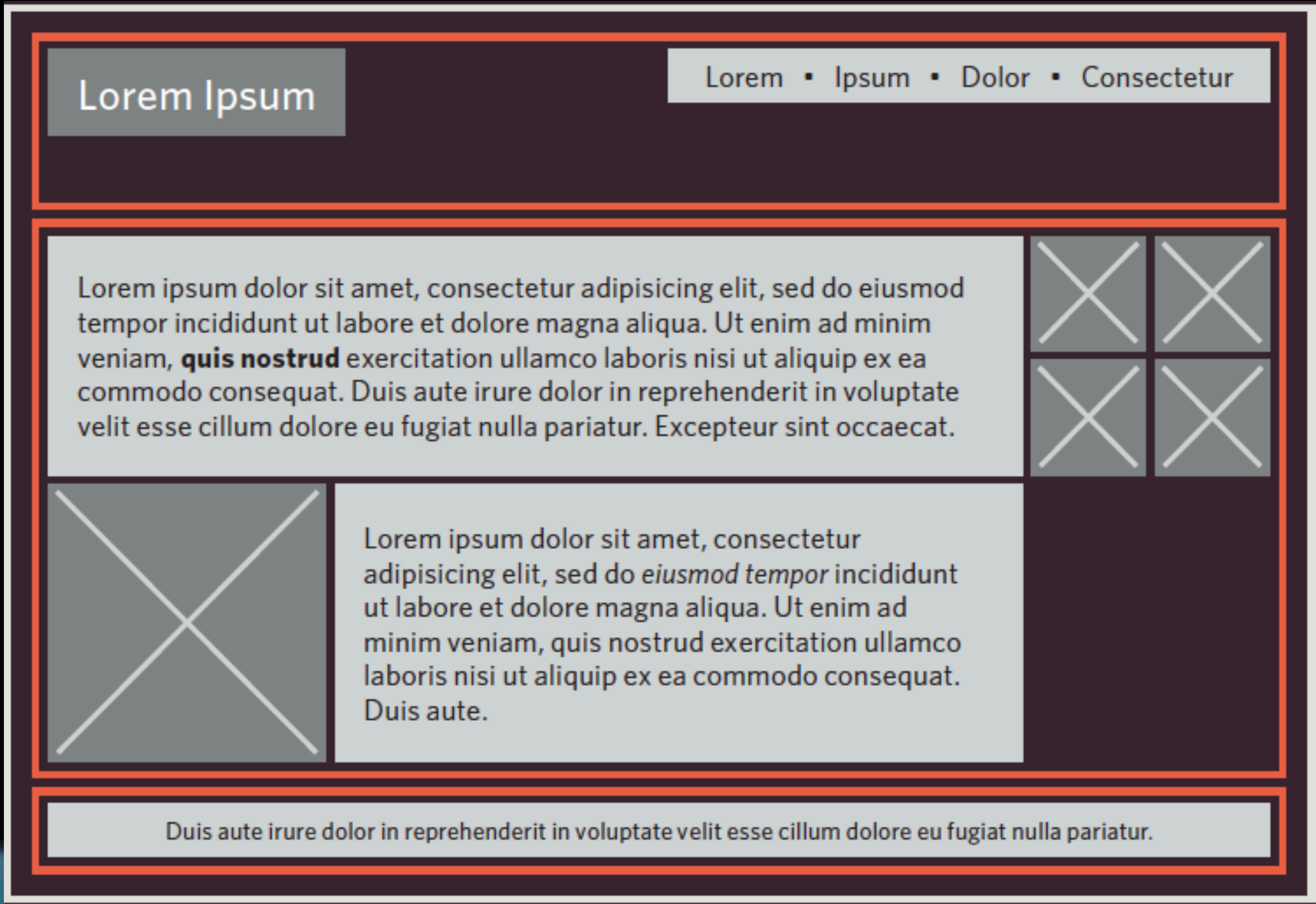
Composition

Positioning

CSS layout

grouping
a number
of elements
together inside
a block - <div>

parent
child



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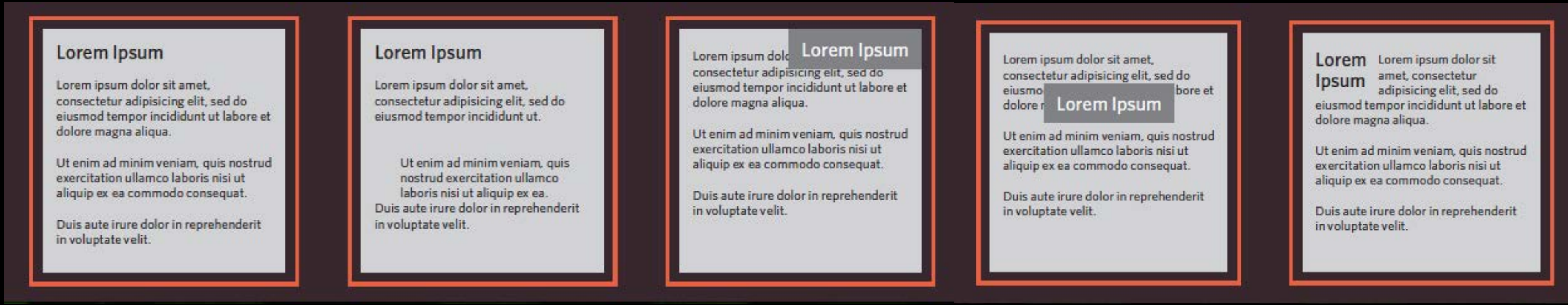
CSS positioning

Normal | Relative | Absolute | Fixed | Floating


Lorem Ipsum
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CSS positioning

normal flow (static)

- Every block-level element appears on a new line, causing each item to appear lower down the page than the previous one – default

```
position: static;
```

relative positioning

- A relative positioned element is positioned relative to its normal position
- does not affect the position of surrounding elements; they stay in the position they would be in in normal flow

```
position: relative;
```

CSS positioning

absolute positioning

- An absolute position element is positioned relative to the first parent element that has a position other than static. If no such element is found, the containing block is <html>
- Removed from the normal flow
- The document and other elements behave like the absolutely positioned element does not exist
- can overlap other elements

```
position: absolute;
```

- Due to the way different mobile browsers treat the viewport, fixed positioning can be somewhat unreliable

CSS positioning

fixed positioning

- An element with fixed position is positioned relative to the browser window
- will not move even if the window is scrolled

```
position: fixed;
```

floating elements

- Floated element is taken out of normal flow and positioned
- it to the far left or right of a containing box
- other content can flow around

```
float: right;
```

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CSS positioning

floating elements

- Floated element is taken out of normal flow and positioned
- it to the far left or right of a containing box
- other content can flow around

```
float: right;
```

Ex. css_float.html

CSS positioning

clear:

- no other element should touch the sides of a box

    left

    right

    both

    none

```
.clear { clear: left;}
…
<p class="clear">
```

CSS positioning

- Parents of floating elements can be treated as no width, no border, etc.
- To avoid it add overflow: auto; & width: properties.

```
div {
        border: 1px solid #665544;
        /*overflow: auto;*/
        /*width: 100%;}*/
        }
```

Ex. css_parent_float.html

Multiple columns with <div> and floats

- <div> element used to group items in a box

width:	sets the width of the columns
float:	positions the columns next to each other
margin:	creates a gap between the columns

```
.column1 { float: left; width: 620px; margin: 10px;}
.column2 { float: left; width: 300px; margin: 10px;}
```

CSS Layout

Dektop	Mobile
960-1000 px width	960 – 1024 px- .etc.
570-600 px height	640 – 768 px – etc.

- Variable key message areas
- Above the fold – area that users can see without scrolling
- Less than a second
- Concise content intro
- Hint at more content
- Responsive designs change depending on the screen size

CSS stacking order

Z- index

used to determine the stacking order of positioned elements

```
z-index: 10;
```

used to overlay elements on top of each other to create a specific visual effect

Fixed Width Layouts (px)

Pros

- do not change size
- greater control over the appearance and position of items on the page
- control the lengths of lines of text regardless of the size of the user's window
- image size remain the same relative to the rest of the page

Cons

- change size depending on the user screen / device
- If a user increases font sizes, text might not fit into the allotted spaces
- works best on devices that have a site or resolution similar to target design
- the page will often take up more vertical space than a liquid layout with the same content

Liquid Layouts (%)

Pros

- Expand, Stretch and contract
- the page can contract to fit it without the user having to scroll to the side
- tolerant of users setting font sizes larger than the designer intended (because the page can stretch)

Cons

- no control the width of sections
- the design can look very different
- unexpected gaps around certain
- elements or items squashed together
- lines of text can become illegible
- words may be squashed and you can end up with few words on each line
- fixed width items (images) can overflow over the text

CSS Images

width: height:

consistently sized images across a web site

CSS control the sizes of the

```
img.large { width: 500px; height: 500px;}
img.medium { width: 250px; height: 250px;}
img.small { width: 100px; height: 100px;}
```

CSS Images

```
img.align-left {
        float: left;
        margin-right: 10px;}
img.align-right {
        float: right;
        margin-left: 10px;}
img.medium {
        width: 250px;
        height: 250px;}
```

CSS Images

```
img.align-left {
        float: left;
        margin-right: 10px;}
img.align-right {
        float: right;
        margin-left: 10px;}
img.medium {
        width: 250px;
        height: 250px;}

<img src="images/print1.jpg" alt=”flower" class="align-right medium" />
```

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CSS Images

```
img.align-center {
	display: block; margin: 0px auto;}
img.medium {
	width: 250px; height: 250px;}



<img src="images/print1.jpg" alt=”flower" class="align-center medium"
" />
```

CSS Images

background-image:

```
body {
background-image: url("images/pattern.gif");}
```

CSS Images

```
background-repeat:
        repeat-x
        repeat-y
        no-repeat
Background-attachment:
        fixed
        scroll
body {
        background-image: url("images/header.gif");
        background-repeat: repeat-x;
        background-attachment: fixed;}
```

CSS Images

background-position:

in the browser window

left top left

center left

bottom center

top center

center center

bottom right

top right

center right

bottom

CSS Images

```
body {
		background-image: url("images/flower.jpg");
		background-repeat: no-repeat;
		background-position: center top;}
```

CSS Images

background:

1: background-color

2: background-image

3: background-repeat

4: background-attachment

5: background-position

```
body {
        background: #ffffff url("images/tulip.gif")
        no-repeat top right;}
```

CSS rollovers

```
a.button {
		height: 36px;
		background-image: "borderimage1.jpg");
		text-indent: -9999px;
		display: inline-block;}
a#add-to-basket {
		width: 174px;
		background-position: 0px 0px;}
a#framing-options {
		width: 210px;
		background-position: -175px 0px;}
a#add-to-basket:hover {
		background-position: 0px -40px;}
a#framing-options:hover {
		background-position: -175px -40px;}
```

```
<a class="button" id="add-to-basket">
Add to basket</a>
<a class="button" id="framing-options">
Framing options</a>
```

CSS3 gradient

```
#gradient {
/* fallback color */
background-color: #66cccc;
/* fallback image */
background-image: url(images/fallback-image.png);
/* Firefox 3.6+ */
background-image: -moz-linear-gradient(#336666,
#66cccc);
/* Safari 4+, Chrome 1+ */
background-image: -webkit-gradient(linear, 0% 0%,
0% 100%, from(#66cccc), to(#336666));
/* Safari 5.1+, Chrome 10+ */
background-image: -webkit-linear-gradient(#336666,
#66cccc);
/* Opera 11.10+ */
background-image: -o-linear-gradient(#336666,
```

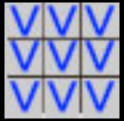
CSS Layout

exercise

CSS3 border-image:

applies an image to the border of any box

background image is sliced it into 9 pieces



1: The URL of the image

2: Where to slice the image

3: What to do with the straight edges;

the possible values are:

stretch stretches the image repeat repeats the image round like repeat but if the tiles do not fit exactly, scales the tile image

Ex.css_border_image.html

CSS3 box-shadow:

Drops shadow around a box

inset – crates inner shadow

horizontal offset - Negative values position the shadow to the left

vertical offset - Negative values position the shadow to the top

blur distance - If omitted, the shadow is a solid line like a border

spread of shadow -positive value will cause the shadow to expand in all directions, and a negative value will make it contract

Ex. css_box_shadow.html

CSS3 border-radius:

Creates rounded corners on any box

The value indicates the size of the radius in pixels

border-top-right-radius

border-bottom-right-radius

border-bottom-left-radius

border-top-left-radius

```
p {
    border: 5px solid #cccccc;
    padding: 20px;
    width: 275px;
    text-align: center;
    border-radius: 10px;
    -moz-border-radius: 10px;
    -webkit-border-radius: 10px;}
```

Ex. css_border_radius.html

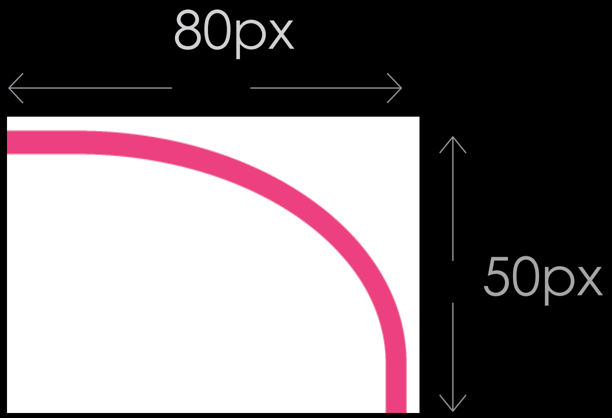
CSS3 elliptical shapes

more complex elliptical shapes

specify different distances for the horizontal and the vertical parts of the rounded corners

border-radius: 80px 50px;

ex.css_elliptical_shapes.html



CSS list properties

list-style-type: - controls the shape/style of a bullet <ol> <ul> <li>

<ul>

none

disc

circle

square

Ex.css_list_tables.html

CSS list properties

<ol>

decimal

1 2 3

decimal-leading-zero

01 02 03

lower-alpha

a b c

upper-alpha

A B C

lower-roman

i. ii. iii.

upper-roman

I II III

CSS list properties

list-style-image: - specifies an image to act as a bullet point

```
ul {
        list-style-image: url("images/star.png");}
li {
        margin: 10px 0px 0px 0px;}
```

CSS list properties

list-style-position: - specifies if the marker appears on the inside or the outside of the box containing the main points

ouside inside

```
ul {
        width: 150px;}
li {
        margin: 10px;}
ul.illuminations {
        list-style-position: outside;}
ul.season {
        list-style-position: inside;}
```

CSS list properties

list-style: - addresses all the above (shorthand)

```
ul {
        list-style: inside circle;
        width: 300px;}
li {
        margin: 10px 0px 0px 0px;}
```

CSS table properties

width:

padding:

text-transform: converts the content of the table headers to uppercase

letter-spacing, font-size: adds additional styling to the content of the table headers

border-top, border-bottom: sets borders above and below the table headers

text-align:

background-color:

:hover - highlights a table row when a user's mouse goes over it

CSS table styling tips

padding to add space between cells

distinguish headings (<th> or bold, etc.)

shade alternate rows for legibility

align numerals

CSS table styling tips

empty-cells: specifies if empty table cell borders are shown

show

hide

inherit - the nested table cells will obey the rules of the container

```
td {
		border: 1px solid #0088dd;
		padding: 15px;}
table.one {
		empty-cells: show;}
table.two {
		empty-cells: hide;}
```

CSS table styling tips

border-spacing: controls the distance between adjacent cells

border-collapse: collapses adjacent borders of inside cells to prevent the width of lines twice that of the outside edges

collapse

separate

Ex.css_list_tables.html