"Ss. Cyril and Methodius" University in Skopje
FACULTY OF COMPUTER
SCIENCE AND ENGINEERING

INTRODUCTION TO WEB DESIGN

INTRODUCTION TO HTML

STRUCTURE, TEXT, LISTS, CSS

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LECTURE OVERVIEW

Working with text

Working with lists

Introduction to CSS

Understand the web page structure

- Divisions and spans
- HTML5 structural elements

TEXT-RELATED TAGS

There are several HTML tags that are used for text markup in the web pages.

Structural markup:

- the elements used to describe both headings and paragraphs

Semantic markup:

- elements that provide extra information
  - such as where **emphasis** is placed in a sentence,
  - that something you have written is a **quotation** (and who said it),
  - the meaning of **acronyms**,
  - etc.

STRUCURAL MARKUP

HEADINGS

HTML has six “levels” of headings.

Browsers display the contents of headings at different sizes.

- The contents of an **<h1>** element is the largest, and the contents of an **<h6>** element is the smallest
- The exact size at which each browser shows the headings can vary slightly (you can also adjust the size of text in the browser)

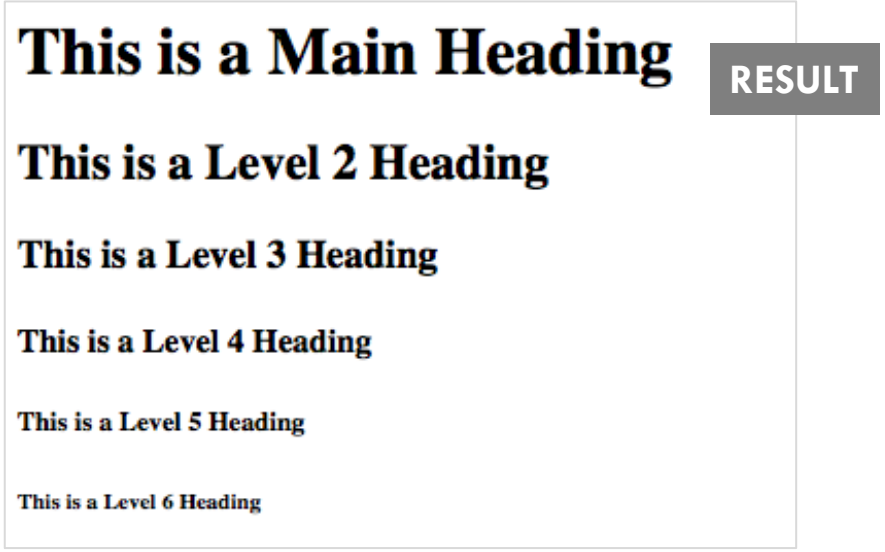
<h1> <h2> <h3> <h4> <h5> <h6>

STRUCTURAL MARKUP

HEADINGS example

```
<h1>This is a Main Heading</h1>
<h2>This is a Level 2 Heading</h2>
<h3>This is a Level 3 Heading</h3>
<h4>This is a Level 4 Heading</h4>
<h5>This is a Level 5 Heading</h5>
<h6>This is a Level 6 Heading</h6>
```

HTML



RESULT

STRUCTURAL MARKUP

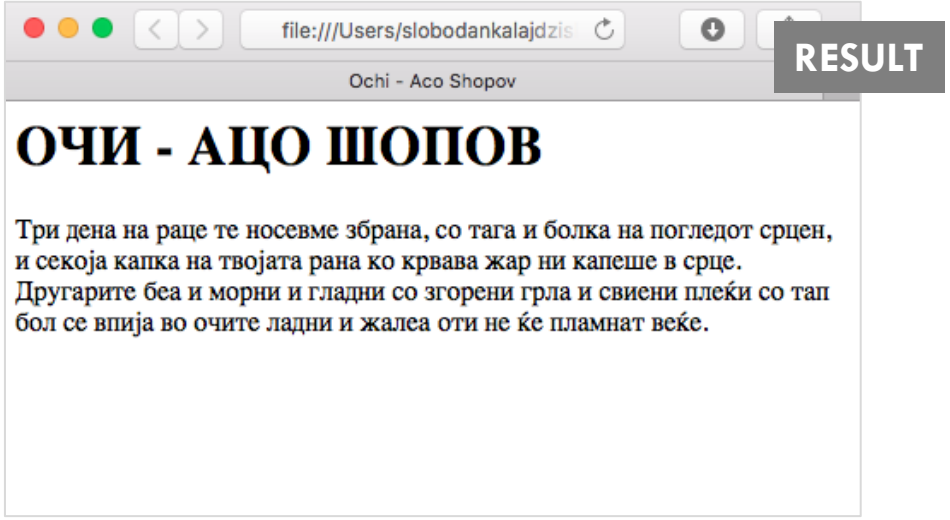
New lines and blanks are ignored in HTML paragraphs

HTML

```
<html>
 <head>
  <title> Ochi - Aco Shopov </title>
 </head>
 <body>
  <h1>ОЧИ - АЦО ШОПОВ</h1>
  <p>
   Три дена на раце те носевме збрана,
   со тага и болка на погледот срцен,
   и секоја капка на твојата рана
   ко крвава жар ни капеше в срце.

   Другарите беа и морни и гладни
   со згорени грла и свиени плеќи
   со тап бол се впија во очите ладни
   и жалеа оти не ќе пламнат веќе.
  </p>
 </body>
</html>
```

RESULT



STRUCTURAL MARKUP

New lines and blanks are ignored in HTML paragraphs

HTML

```
<html>
 <head>
  <title> Ochi - Aco Shopov </title>
 </head>
 <body>
  <h1>ОЧИ - АЦО ШОПОВ</h1>
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   Три дена на раце те носевме збрана,
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   Другарите беа и морни и гладни
   со згорени грла и свиени плеќи
   со тап бол се впија во очите ладни
   и жалеа оти не ќе пламнат веќе.
  </p>
 </body>
</html>
```
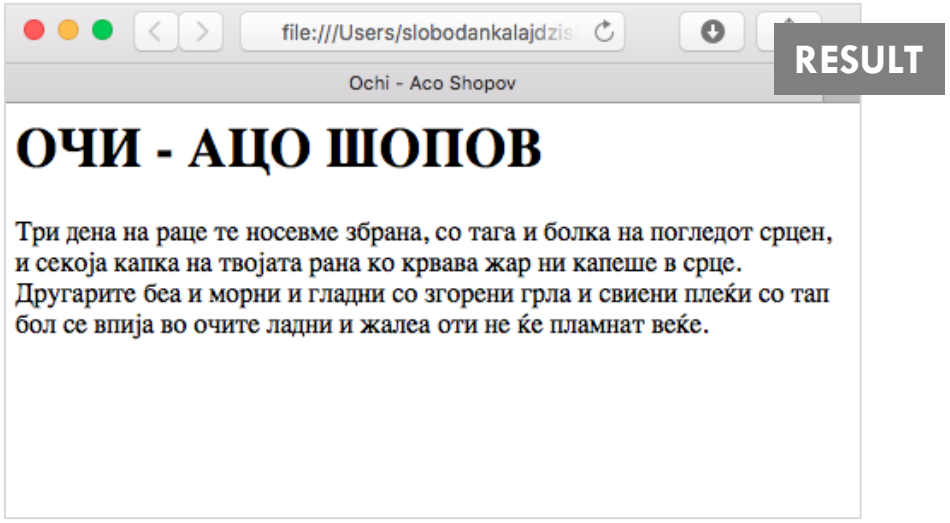

WHITE SPACE COLLAPSING

- When the browser comes across two or more spaces next to each other, it only displays one space.
- Similarly if it comes across a line break, it treats that as a single space too.

RESULT



STRUCTURAL MARKUP

LINE BREAKS

Line break tag **
** is used to add a line break inside the middle of a paragraph

To create a break between themes you can add a horizontal rule between sections by using the **<hr />** tag

 <hr/>

STRUCTURAL MARKUP

LINE BREAKS

example

HTML

```
<html>
 <head>
  <title> Ochi - Aco Shopov </title>
 </head>
 <body>
  <h1>ОЧИ - АЦО ШОПОВ</h1>
  <p>Три дена на раце те носевме збрана,<br/>
   со тага и болка на погледот срцен,<br/>
   и секоја капка на твојата рана<br/>
   ко крвава жар ни капеше в срце.
  </p>
  <p>Другарите беа и морни и гладни<br/>
   со згорени грла и свиени плеќи<br/>
   со тап бол се впија во очите ладни<br/>
   и жалеа оти не ќе пламнат веќе.
  </p>
 </body>
</html>
```

RESULT

ОЧИ - АЦО ШОПОВ

Три дена на раце те носевме збрана,
со тага и болка на погледот срцен,
и секоја капка на твојата рана
ко крвава жар ни капеше в срце.

Другарите беа и морни и гладни
со згорени грла и свиени плеќи
со тап бол се впија во очите ладни
и жалеа оти не ќе пламнат веќе.

STRUCTURAL MARKUP

VISUAL STYLE CHANGE

By enclosing words in the tags **** and **** we can make characters appear bold

By enclosing words in the tags **** and **** we can make characters appear italic.

The **<sup>** element is used to contain characters that should be superscript.

The **<sub>** element is used to contain characters that should be subscript.

  <sup> <sub>

STRUCTURAL MARKUP

VISUAL STYLE CHANGE

example

HTML

```
<html>
 <head>
  <title>Examples</title>
 </head>
 <body>
  <p>Inside a product description you might see
    some <b>key features</b> in bold.</p>
  <p>It's a potato <i>Solanum teberosum</i>.</p>
  <p>On the 4<sup>th</sup> of September you will
    learn about E=MC<sup>2</sup>.</p>
  <p>The amount of CO<sub>2</sub> in the
    atmosphere grew by 2ppm in 2009
    <sub>1</sub>.</p>
 </body>
</html>
```

RESULT

Inside a product description you might see some **key features** in bold.

It's a potato *Solanum teberosum*.

On the 4^{th} of September you will learn about $E=MC^2$.

The amount of CO_2 in the atmosphere grew by 2ppm in 2009_1.

SEMANTIC MARKUP

Semantic markup text elements are not intended to affect the structure of your web pages, but they do add extra information to the pages.

The reason for using these elements is that other programs, such as screen readers or search engines, can use this extra information.

- The voice of a screen reader may add emphasis to the words inside the **** element,
- A search engine might register that your page features a quote if you use the **<blockquote>** element.

  <blockquote> <q>

SEMANTIC MARKUP

STRONG & EMPHASIS

example

```
<html>
 <head>
  <title>Examples</title>
 </head>
 <body>
  <p><strong>Beware:</strong> Pickpockets
    operate in this area.</p>
  <p>This toy has many small pieces and is
    <strong>not suitable for children under
    five years old. </strong></p>
  <p>I <em>think</em> Ivy was the first.</p>
  <p>I think <em>Ivy</em> was the first.</p>
  <p>I think Ivy was the <em>first</em>.</p>
 </body>
</html>
```

HTML

Beware: Pickpockets operate in this area.

This toy has many small pieces and is **not suitable for children under five years old.**

I *think* Ivy was the first.

I think *Ivy* was the first.

I think Ivy was the *first*.

RESULT

SEMANTIC MARKUP

BLOCKQUOTE example

HTML

```
<html>
 <head>
  <title>Examples</title>
 </head>
 <body>
  <blockquote cite="http://en.wikipedia.org/wiki/Winnie-the-Pooh">
   <p>Did you ever stop to think, and forget to start again?</p>
  </blockquote>
  <p>As A.A. Milne said, <q>Some people talk to animals. Not many listen though. That's
   the problem.</q></p>
 </body>
</html>
```

RESULT

Did you ever stop to think, and forget to start again?

As A.A. Milne said, "Some people talk to animals. Not many listen though. That's the problem."

SEMANTIC MARKUP

CITATIONS

When you are referencing a piece of work such as a book, film or research paper, the **<cite>** element can be used to indicate where the citation is from.

```
<p><cite>A Brief History of Time</cite> by Stephen Hawking has sold over ten million copies worldwide.</p>
```

RESULT

A Brief History of Time by Stephen Hawking has sold over ten million copies worldwide.

SEMANTIC MARKUP

DEFINITIONS

The first time when explaining some new terminology (perhaps an academic concept or some jargon) in a document, it is known as the **defining instance** of it.

```
<p><dfn>black hole</dfn> is a region of space from which nothing, not even light, can escape.</p>
```

RESULT

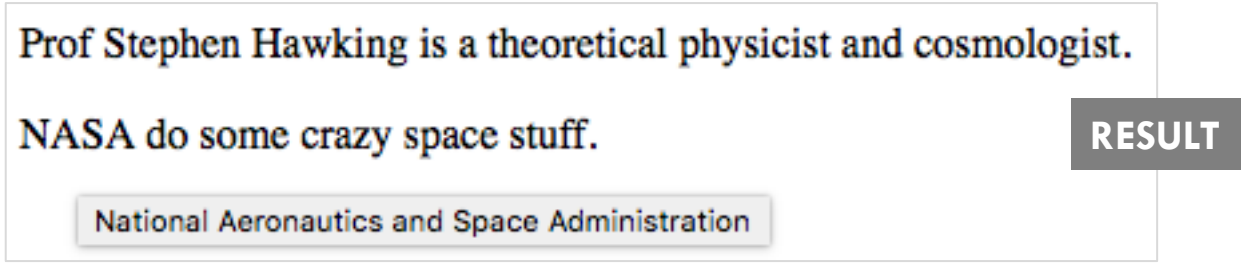
black hole is a region of space from which nothing, not even light, can escape.

SEMANTIC MARKUP

ABBREVIATIONS

When you are using abbreviation of a word, the **<abbr>** element can be used.

```
<p><abbr title="Professor">Prof</abbr> Stephen Hawking is a theoretical physicist and cosmologist.</p>
<p><acronym title="National Aeronautics and Space Administration"> NASA</acronym> do some crazy space stuff.</p>
```



SEMANTIC MARKUP

CHANGES TO CONTENT

The **<ins>** element can be used to show content that has been inserted into a document.

The **<del>** element can show text that has been deleted from it.

The **<s>** element indicates something that is no longer accurate or relevant (but that should not be deleted).

<ins> <del> <s>

SEMANTIC MARKUP

CHANGES TO CONTENT

example

HTML

```
<html>
 <head>
  <title>Examples</title>
 </head>
 <body>
  <p>It was the <del>worst</del>
    <ins>best</ins> idea she
    had ever had.</p>
  <p>Laptop computer:</p>
  <p><s>Was $995</s></p>
  <p>Now only $375</p>
 </body>
</html>
```

RESULT

It was the ~~worst~~ best idea she had ever had.

Laptop computer:

~~Was $995~~

Now only $375

HANDS-ON EXAMPLE

The Story in the Book

Chapter 1

Molly had been staring out of her window for about an hour now. On her desk, lying between the copies of Nature, New Scientist, and all the other scientific journals her work had appeared in, was a well thumbed copy of On The Road. It had been Molly's favorite book since college, and the longer she spent in these four walls the more she felt she needed to be free.

She had spent the last ten years in this room, sitting under a poster with an Oscar Wilde quote proclaiming that Work is the refuge of people who have nothing better to do. Although many considered her pioneering work, unraveling the secrets of the llama DNA, to be an outstanding achievement, Molly did think she had something better to do.

Nature, **New Scientist** & **On The Road** are citations to scientific journals.

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Nature, ~~**New Scientist**~~ & **On The Road** are citations to scientific journals.

Work is the refuge of people who have nothing better to do, is a quotation.

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DNA, is an abbreviation of Deoxyribonucleic acid.

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She had spent the last ten years in this room, sitting under a poster with an Oscar Wilde quote proclaiming that Work is the refuge of people who have nothing better to do. Although many considered her pioneering work, unraveling the secrets of the llama DNA, to be an outstanding achievement, Molly did think she had something better to do.

Nature, **New Scientist** & **On The Road** are citations to scientific journals.

Work is the refuge of people who have nothing better to do, is a quotation.

DNA, is an abbreviation of Deoxyribonucleic acid.

Did, should be emphasized.

WORKING WITH LISTS

HTML provides us three different list types:

- **Ordered lists** are lists where each item in the list is numbered.
  - Set of steps for a recipe that must be performed in order, or
  - A legal contract where each point needs to be identified by a section number.
- **Unordered lists** are lists that begin with a bullet point (rather than characters that indicate order).
- **Definition lists** are made up of a set of terms along with the definitions for each of those terms.

WORKING WITH LISTS

ORDRED LISTS

The ordered list is created with the **<ol>** element.

Each item in the list is placed between an opening **
** tag and a closing **
** tag.

- The **li** stands for *list item*

Browsers indent lists by default.

WORKING WITH LISTS

ORDRED LISTS

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Each item in the list is placed between an opening **
** tag and a closing **
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Browsers indent lists by default.

NOTE

Sometimes you may see a **type** attribute used with the **<ol>** element to specify the type of numbering (numbers, letters, roman numerals and so on).

WORKING WITH LISTS

OREDERED LISTS

example

HTML

```
<ol>
  <li>Chop potatoes into quarters</li>
  <li>Simmer in salted water for 15-20 minutes until tender</li>
  <li>Heat milk, butter and nutmeg</li>
  <li>Drain potatoes and mash</li>
  <li>Mix in the milk mixture</li>
</ol>
```

RESULT

1. Chop potatoes into quarters
2. Simmer in salted water for 15-20 minutes until tender
3. Heat milk, butter and nutmeg
4. Drain potatoes and mash
5. Mix in the milk mixture

WORKING WITH LISTS

UNORDRED LISTS

The unordered list is created with the **<ul>** element.

Each item in the list is placed between an opening **
** tag and a closing **
** tag.

- The **li** stands for *list item*

Browsers indent lists by default.

WORKING WITH LISTS

UNORDRED LISTS

The unordered list is created with the **<ul>** element.

Each item in the list is placed between an opening **
** tag and a closing **
** tag.

- The **li** stands for *list item*

Browsers indent lists by default.

NOTE

Sometimes you may see a **type** attribute used with the **<ul>** element to specify the type of bullet point (circles, squares, diamonds and so on).

WORKING WITH LISTS

UNOREDERED LISTS

example

HTML

```
<ul>
  <li>1kg King Edward potatoes</li>
  <li>100ml milk</li>
  <li>50g salted butter</li>
  <li>Freshly grated nutmeg</li>
  <li>Salt and pepper to taste</li>
</ul>
```

RESULT

- 1kg King Edward potatoes
- 100ml milk
- 50g salted butter
- Freshly grated nutmeg
- Salt and pepper to taste

WORKING WITH LISTS

NESTED LISTS

example

You can put a second list inside an **<li>** element to create a sub- list or **nested list**.

HTML

```
<ul>
 <li>Mousses</li>
 <li>Pastries
  <ul>
   <li>Croissant</li>
   <li>Mille-feuille</li>
   <li>Palmier</li>
   <li>Profiterole</li>
  </ul>
 </li>
 <li>Tarts</li>
</ul>
```

RESULT

- Mousses
- Pastries
  - Croissant
  - Mille-feuille
  - Palmier
  - Profiterole
- Tarts

WORKING WITH LISTS

NESTED LISTS

example

You can put a second list inside an **<li>** element to create a sub- list or **nested list**.

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   <li>Croissant</li>
   <li>Mille-feuille</li>
   <li>Palmier</li>
   <li>Profiterole</li>
  </ul>
 </li>
 <li>Tarts</li>
</ul>
```

RESULT

- Mousses
- Pastries
  - Croissant
  - Mille-feuille
  - Palmier
  - Profiterole
- Tarts

NOTE: Browsers display nested lists indented further than the parent list. In nested unordered lists, the browser will usually change the style of the bullet point too.

WORKING WITH LISTS

DEFINITION LISTS

The definition list is created with the **<dl>** element and usually consists of a series of terms and their definitions.

- Inside the **<dl>** element you will usually see pairs of **<dt>** and **<dd>** elements.

The **<dt>** element is used to contain the term being defined (the definition term).

The **<dd>** element is used to contain the definition.

<dl> <dt> <dd>

WORKING WITH LISTS

DEFINITION LISTS

example

HTML

```
<dl>
  <dt>Sashimi</dt>
  <dd>Sliced raw fish that is served with condiments such as
      shredded daikon radish or ginger root, wasabi and soy
      sauce</dd>
  <dt>Scale</dt>
  <dd>A device used to accurately measure the weight of
      ingredients</dd>
  <dd>A technique by which the scales are removed from
      the skin of a fish</dd>
  <dt>Scamorze</dt>
  <dt>Scamorzo</dt>
  <dd>An Italian cheese usually made from whole cow's
      milk (although it was traditionally made from buffalo
      milk)</dd>
</dl>
```

RESULT

Sashimi
: Sliced raw fish that is served with condiments such as shredded daikon radish or ginger root, wasabi and soy sauce

Scale
: A device used to accurately measure the weight of ingredients
: A technique by which the scales are removed from the skin of a fish

Scamorze

Scamorzo
: An Italian cheese usually made from whole cow's milk (although it was traditionally made from buffalo milk)

HOMEWORK EXCERCISE

Write HTML code that will result in the following document look.

Scrambled Eggs

Eggs are one of my favourite foods. Here is a recipe for deliciously rich scrambled eggs.

Ingredients

- 2 eggs
- 1tbs butter
- 2tbs cream

Method

1. Melt butter in a frying pan over a medium heat
2. Gently mix the eggs and cream in a bowl
3. Once butter has melted add cream and eggs
4. Using a spatula fold the eggs from the edge of the pan to the center every 20 seconds (as if you are making an omelette)
5. When the eggs are still moist remove from the heat (it will continue to cook on the plate until served)

GLOBAL ATTRIBUTES

We have previously seen that lang is a common attribute for every HTML element.

Besides this tag, there are other attributes that can be used in any element; these are called **global attributes**.

Most important global attributes are:

- class
- id

class="..."

id="..."

GLOBAL ATTRIBUTES

ID attribute

Every HTML element can carry the **id** attribute.

It is used to **uniquely identify** that element from other elements on the page.

Its value should start with a letter or an underscore (not a number or any other character).

It is important that no two elements on the same page have the same value for their **id** attributes (otherwise the value is no longer unique).

GLOBAL ATTRIBUTES

ID attribute

example

```
<p>Water and air. So very commonplace are these substances, they
    hardly attract attention - and yet they vouchsafe our very
    existence.</p>
<p id="pullquote">Every time I view the sea I feel a calming sense of
    security, as if visiting my ancestral home; I embark on a voyage of
    seeing.</p>
<p>Mystery of mysteries, water and air are right there before us in the
    sea.</p>
```

You might want to assign one paragraph within the page (perhaps a paragraph containing a pull quote) a different style than all of the other paragraphs.

The paragraph with the **id** attribute whose value is **pullquote** could be made uppercase by using CSS.

GLOBAL ATTRIBUTES

CLASS attribute

Every HTML element can also carry a **class** attribute.

Sometimes, rather than uniquely identifying one element within a document, you will want a way to identify several elements as being different from the other elements on the page.

- To do this you can use the **class** attribute.
- Its value should describe the class it belongs to.

The **class** attribute on any element can share the same value.

GLOBAL ATTRIBUTES

CLASS attribute

example

```
<p class="important">For a one-year period from November 2010, the
    Marugame Genichiro-Inokuma Museum of Contemporary Art
    (MIMOCA) will host a cycle of four Hiroshi Sugimoto
    exhibitions.</p>
<p>Each will showcase works by the artist thematically contextualized
    under the headings "Science," "Architecture," "History" and
    "Religion" so as to present a comprehensive panorama of the
    artist's oeuvre.</p>
<p class="important admittance">Hours: 10:00 – 18:00 (No admittance
    after 17:30)</p>
```

You might want to assign CSS to make elements with a class attribute whose value is *important* uppercase, and elements with a class attribute whose value is *admittance* red.

If you would like to indicate that an element belongs to several classes, you can separate class names with a space, as you can see in the third paragraph in the example.

UNDERSTANDING COMMON CSS TERMS

HTML will define the **content** and **structure** of the web pages.

CSS will define the **visual style** and **appearance** of the web pages.

UNDERSTANDING COMMON CSS TERMS

HTML will define the **content** and **structure** of the web pages.

CSS will define the **visual style** and **appearance** of the web pages.

In addition to HTML terms, there are a few common CSS terms that are used in everyday web design practice.

These terms include:

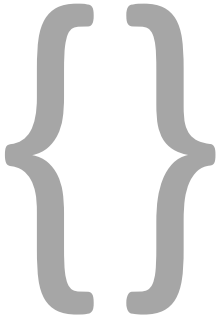
- selectors
- properties
- values

UNDERSTANDING COMMON CSS TERMS

SELECTORS

A **selector** designates exactly which element or elements within the HTML code to target and apply styles (such as color, size, and position) to.

- Selectors generally target an **attribute value**, or target the **type of element**.
- Within CSS, selectors are followed with curly brackets, {}, which encompass the styles to be applied to the selected element.



UNDERSTANDING COMMON CSS TERMS

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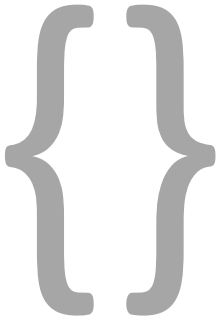
- Selectors generally target an **attribute value**, or target the **type of element**.
- Within CSS, selectors are followed with curly brackets, {}, which encompass the styles to be applied to the selected element.

```
p { . . . }
```



UNDERSTANDING COMMON CSS TERMS

PROPERTIES

A **property** determines the styles that will be applied to the selected element.

- Property names fall after a selector and immediately preceding a colon, **:**.
- There are numerous properties we can use, such as **background**, **color**, **font-size**, **height**, and **width**, and new properties are often added.

color

font-size

UNDERSTANDING COMMON CSS TERMS

PROPERTIES

A **property** determines the styles that will be applied to the selected element.

- Property names fall after a selector and immediately preceding a colon, **:**.
- There are numerous properties we can use, such as **background**, **color**, **font-size**, **height**, and **width**, and new properties are often added.

```
p {
  color: ...;
  font-size: ...; }
```

color

font-size

UNDERSTANDING COMMON CSS TERMS

VALUES

Values can be identified as the text between the colon, :, and semicolon, ;.

- Every property has a predefined values that can be attached to it.

orange

16px

UNDERSTANDING COMMON CSS TERMS

VALUES

Values can be identified as the text between the colon, :, and semicolon, ;.

- Every property has a predefined values that can be attached to it.

```
p {
  color: orange;
  font-size: 16px; }
```

orange
16px

UNDERSTANDING COMMON CSS TERMS

Every CSS statement begins with the selector, which is immediately followed by curly brackets.

Within these curly brackets are declarations consisting of property and value pairs.

Each declaration begins with a property, which is followed by a colon, the property value, and finally a semicolon.

WORKING WITH SELECTORS

Selectors indicate which HTML elements are being styled.

There are different types of selectors, like:

TYPE SELECTORS	they target elements by their element type
CLASS SELECTORS	they allow us to apply the same styles to different elements at once by using the same class attribute value across multiple elements
ID SELECTORS	they use an element's id attribute value as a selector.

WORKING WITH SELECTORS

TYPE SELECTORS

```
p { ... }
```

```
<p> ... </p>
<p> ... </p>
```

WORKING WITH SELECTORS

TYPE SELECTORS

```
p { ... }
```

```
<p> ... </p>
<p> ... </p>
```

CLASS SELECTORS

```
.awesome { ... }
```

```
<p class="awesome"> ... </p>
<h1 class="awesome"> ... </h1>
```

WORKING WITH SELECTORS

TYPE SELECTORS

```
p { ... }
```

```
<p> ... </p>
<p> ... </p>
```

CLASS SELECTORS

```
.awesome { ... }
```

```
<p class="awesome"> ... </p>
<h1 class="awesome"> ... </h1>
```

ID SELECTORS

```
#paragraphId { ... }
```

```
<p id="paragraphId"> ... </p>
```

WORKING WITH SELECTORS

HTML

```
<p class="important">For a one-year period from November 2010, the
    Marugame Genichiro-Inokuma Museum of Contemporary Art (MIMOCA) will
    host a cycle of four Hiroshi Sugimoto exhibitions.</p>
<p>Each will showcase works by the artist thematically contextualized under the
    headings "Science," "Architecture," "History" and "Religion" so as to present
    a comprehensive panorama of the artist's oeuvre.</p>
<p class="important admittance">Hours: 10:00 – 18:00 (No admittance after
    17:30)</p>
```

RESULT

FOR A ONE-YEAR PERIOD FROM NOVEMBER 2010, THE MARUGAME GENICHIRO-INOKUMA MUSEUM OF CONTEMPORARY ART (MIMOCA) WILL HOST A CYCLE OF FOUR HIROSHI SUGIMOTO EXHIBITIONS.

Each will showcase works by the artist thematically contextualized under the headings "Science," "Architecture," "History" and "Religion" so as to present a comprehensive panorama of the artist's oeuvre.

HOURS: 10:00 - 18:00 (NO ADMITTANCE AFTER 17:30)

CSS

```
.important {
  text-transform: uppercase; }
.admittance {
  color: red; }
```

WORKING WITH SELECTORS

HTML

```
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CSS

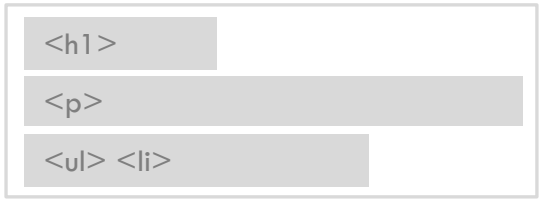
```
.important {
  text-transform: uppercase; }
.admittance {
  color: red; }
```

NOTE: Don’t forget to reference the external CSS

```
<head>
  <link rel="stylesheet" href="main.css">
</head>
```

BUILDING WEB PAGE STRUCTURE

Some elements will always appear to start on a new line in the browser window.
These are known as **block level** elements.



BUILDING WEB PAGE STRUCTURE

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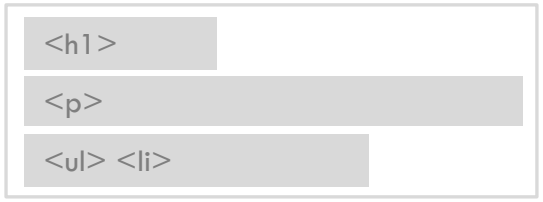
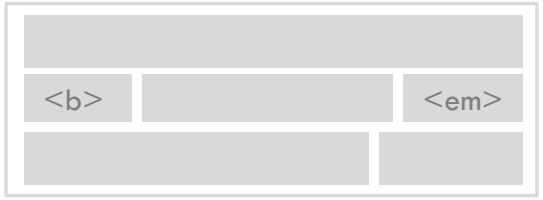


Some elements will always appear to continue on the same line as their neighboring elements. These are known as **inline** elements.



BUILDING WEB PAGE STRUCTURE

Divisions, or ** **s, and ****s are HTML elements that act as **containers** solely for styling purposes.

As generic containers, they do not come with any overarching meaning or semantic value.

Both s and s are extremely valuable when building a website in that they give us the ability to **apply targeted styles** to a **contained set of content**.

DIVISIONS & SPANS

<DIV>

The ** ** element allows you to group a set of elements together in one block-level box (**large groupings** of content). It helps to build a web page's layout and design.

DIVISIONS & SPANS

<DIV>

The ** ** element allows you to group a set of elements together in one block-level box (**large groupings** of content). It helps to build a web page's layout and design.

<SPAN>

The **** element acts like an inline equivalent of the ** ** element, commonly used to identify **smaller groupings** of text within a block-level element. It is used to either:

1. Contain a section of text where there is no other suitable element to differentiate it from its surrounding text
2. Contain a number of inline elements

DIVISIONS & SPANS

<DIV> & <SPAN>

example

```
<!-- Division -->
<div class="social">
  <p>I may be found on...</p>
  <p>Additionally, I have a profile on...</p>
</div>

<!-- Span -->
<p>Soon we'll be <span class="tooltip">writing HTML</span> with
the best of them.</p>
```

DIVISIONS & SPANS

<DIV> & <SPAN>

example

```
<!-- Division -->
<div class="social">
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<!-- Span -->
<p>Soon we'll be <span class="tooltip">writing HTML</span> with the best of them.</p>
```

We'll commonly see s and s with class or id attributes for styling purposes.

Choosing a class or id attribute value, or name, requires a bit of care.

We want to choose a value that refers to the content of an element, not necessarily the appearance of an element.

BUILDING WEB PAGE STRUCTURE

For the longest time the structure of a web page was built using divisions.

- The problem was that divisions provide **no semantic value**, and it was fairly **difficult to determine the intention** of these divisions.

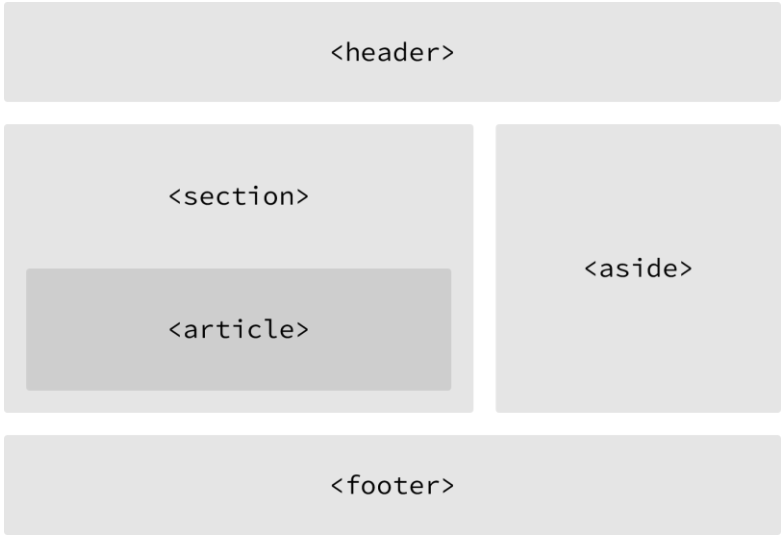
BUILDING WEB PAGE STRUCTURE

For the longest time the structure of a web page was built using divisions.

- The problem was that divisions provide **no semantic value**, and it was fairly **difficult to determine the intention** of these divisions.

Fortunately HTML5 introduced new structurally based elements, including the:

- <header>,
- <nav>,
- <article>,
- <section>,
- <aside>, and
- <footer> elements.



BUILDING WEB PAGE STRUCTURE

The **<header>** element, like it sounds, is used to identify the top of a page, article, section, or other segment of a page.

- In general, the <header> element may include a *heading*, *introductory text*, and *even navigation*.

<header>…</header> <nav>…</nav>

BUILDING WEB PAGE STRUCTURE

The **<header>** element, like it sounds, is used to identify the top of a page, article, section, or other segment of a page.

- In general, the <header> element may include a *heading*, *introductory text*, and *even navigation*.

The **<nav>** element identifies a section of major navigational links on a page.

- The <nav> element should be reserved for primary navigation sections only, such as global navigation, a table of contents, previous/next links, or other noteworthy groups of navigational links.

<header>…</header> <nav>…</nav>

BUILDING WEB PAGE STRUCTURE

The **<article>** element is used to identify a section of independent, self-contained content that may be independently distributed or reused.

- We'll often use the <article> element to mark up blog posts, newspaper articles, user-submitted content, and the like.

<article>…</article> <section>…</section>

BUILDING WEB PAGE STRUCTURE

The **<article>** element is used to identify a section of independent, self-contained content that may be independently distributed or reused.

- We'll often use the <article> element to mark up blog posts, newspaper articles, user-submitted content, and the like.

The **<section>** element is used to identify a thematic grouping of content, which generally, but not always, includes a heading.

- The grouping of content within the <section> element may be generic in nature, but it's useful to identify all of the content as related.
- The <section> element is commonly used to break up and provide hierarchy to a page.

<article>…</article> <section>…</section>

BUILDING WEB PAGE STRUCTURE

The **<aside>** element holds content, such as sidebars, inserts, or brief explanations, that is tangentially related to the content surrounding it.

- When used within an <article> element, the <aside> element may identify content related to the author of the article.

<aside>…</aside> <footer>…</footer>

BUILDING WEB PAGE STRUCTURE

The **<aside>** element holds content, such as sidebars, inserts, or brief explanations, that is tangentially related to the content surrounding it.

- When used within an <article> element, the <aside> element may identify content related to the author of the article.

The **<footer>** element identifies the closing or end of a page, article, section, or other segment of a page.

- Generally the <footer> element is found at the bottom of its parent.
- Content within the <footer> element should be relative information and should not diverge from the document or section it is included within.

<aside>…</aside> <footer>…</footer>

LESSON SUMMARY

HTML elements are used to describe:

- the structure of the page (e.g. headings, subheadings, paragraphs), and
- to provide semantic information (e.g. where emphasis should be placed, the definition of any acronyms used, when given text is a quotation

There are three types of HTML lists:

- Ordered lists use numbers
- Unordered lists use bullets
- Definition lists are used to define terminology

The **id** and **class** attributes allow you to identify particular elements

The ** ** and **** elements allow you to group block-level and inline elements together

HTML5 introduces new structurally based elements