

HTML and CSS Basics

HTML Basic Tags, CSS Introduction



SoftUni Team
Technical Trainers



SoftUni



Software University

<https://softuni.bg>

1. What is HTML?

- HTML Page
- HTML Developer Elements

2. HTML Common Elements

- Headings, Paragraphs, Hyperlinks, Images
- Ordered and Unordered Lists

3. What is CSS?

- External, Internal and Inline CSS Style





What is HTML?

What is HTML?

- The HTML language describes Web content (Web pages)
 - Text with formatting, images, lists, hyperlinks, tables, forms, etc.
 - Uses **tags** to define **elements** in the Web page



Document content goes here...

- **WebStorm**
 - Powerful IDE for HTML, CSS and JavaScript, paid product
- **Visual Studio**
 - Many languages and technologies, Windows & Mac
- **Visual Studio Code, Brackets, NetBeans**
 - Good free tools for HTML5, cross-platform

HTML Page – Example

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>HTML Example</title>
  </head>
  <body>
    <h1>Hello HTML!</h1>
  </body>
</html>
```

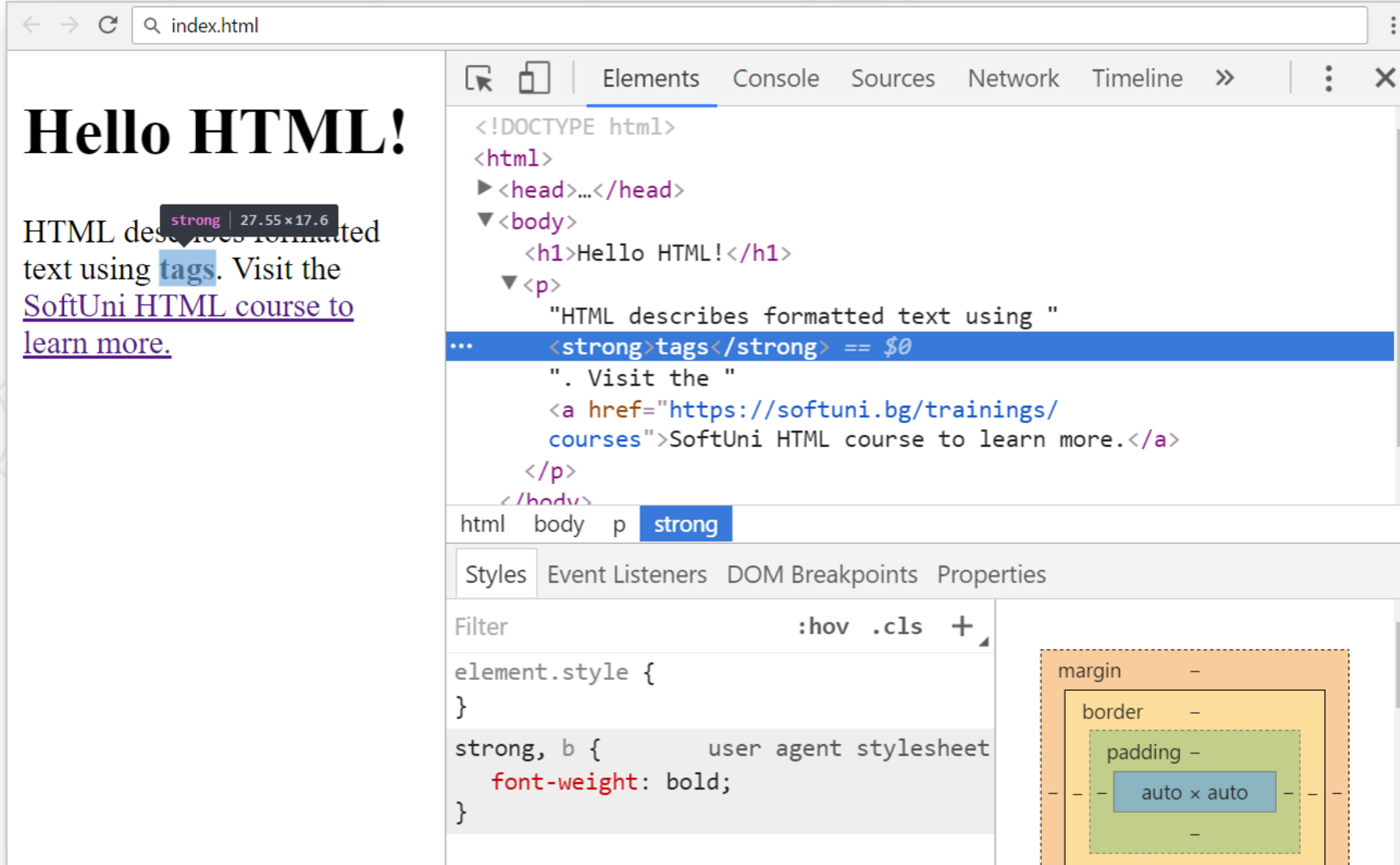


Problem: Welcome to HTML

- Create your first HTML page
 - File name: **welcome.html**
 - Title: Welcome
 - Paragraph of text:
I am learning **HTML** and **CSS**!
- Hints:
 - Modify the code from the previous slide, use **** tag



Developer Tools: [F12] in the Browser



The screenshot shows a web browser window with the address bar displaying 'index.html'. The page content includes a large heading 'Hello HTML!' and a paragraph: 'HTML describes formatted text using tags. Visit the [SoftUni HTML course to learn more.](https://softuni.bg/trainings/courses)'. A tooltip over the word 'tags' shows 'strong' and dimensions '27.55 x 17.6'. The developer tools are open, showing the 'Elements' panel with the HTML structure. The 'strong' element is selected, and the 'Styles' panel shows the default user agent style for 'strong, b' with 'font-weight: bold;'. A box model diagram is visible on the right side of the Styles panel.

index.html

Hello HTML!

HTML describes formatted text using tags. Visit the [SoftUni HTML course to learn more.](https://softuni.bg/trainings/courses)

```
<!DOCTYPE html>
<html>
  <head>...</head>
  <body>
    <h1>Hello HTML!</h1>
    <p>
      "HTML describes formatted text using "
      <strong>tags</strong> == $0
      ". Visit the "
      <a href="https://softuni.bg/trainings/courses">SoftUni HTML course to learn more.</a>
    </p>
  </body>
</html>
```

html body p strong

Styles Event Listeners DOM Breakpoints Properties

Filter :hov .cls +

```
element.style {
}
strong, b {      user agent stylesheet
  font-weight: bold;
}
```

margin -
border -
padding -
auto x auto



HTML Common Elements

Headings

- Headings: `<h1>` to `<h6>`

```
<h1>This is Heading 1 (Biggest)</h1>
```

```
<h2>This is Heading 2 (Smaller)</h2>
```

```
<h3>This is Heading 3 (Even Smaller)</h3>
```

```
<h4>This is Heading 4 (The smallest)</h4>
```

This is Heading 1 (Biggest)

This is Heading 2 (Smaller)

This is Heading 3 (Even Smaller)

This is Heading 4 (The smallest)



Paragraphs

- Paragraphs: `<p></p>`

```
<p>First paragraph</p>
```

```
<p>Second paragraph</p>
```

```
<p>Third paragraph</p>
```

First paragraph

Second paragraph

Third paragraph



- Absolute hyperlink

Specify the URL

SoftUni

```
<a href="https://softuni.bg">SoftUni</a>
```

- HTML hyperlink

```
<h1 id="exercises">Exercises</h1>
```

...

See the `exercises`

- Relative hyperlink

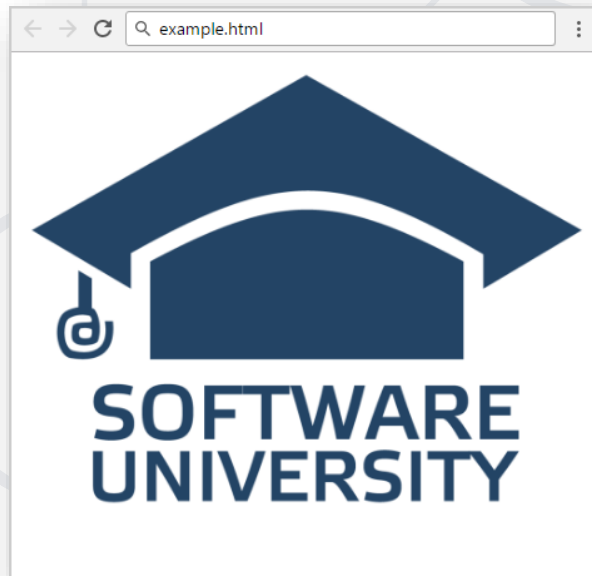
```
<a href="../../../2.%20HTML5-Overview.pptx">presentation</a>
```

Images

- Images are external files, inserted through the `` tag

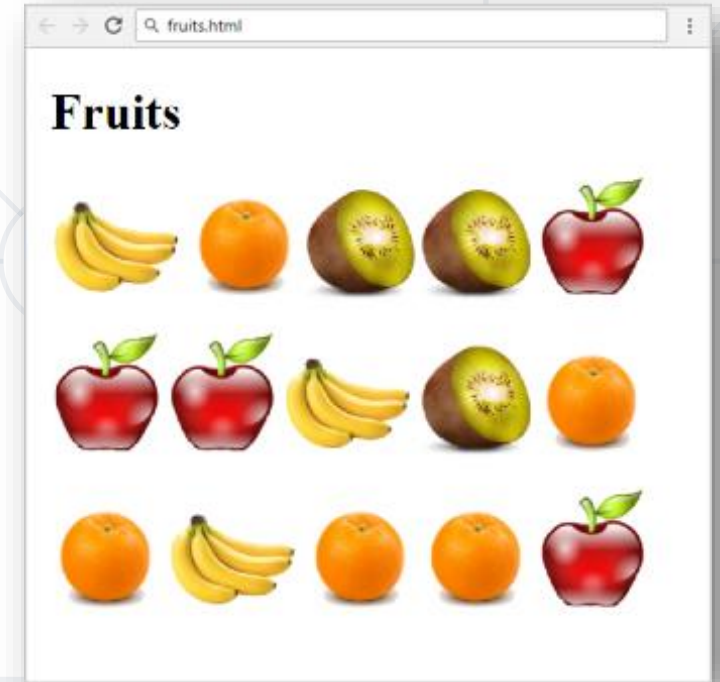
```

```




Problem: Fruits

- You are given 4 image files
 - **apple.png, banana.png, kiwi.png, orange.png**
- Create a web page like the screenshot on the right
 - Use 3 paragraphs - each holding 5 images



Ordered Lists

- Create an Ordered List
- Use ``
 - Each holding ``



```
<ol>  
  <li>One</li>  
  <li>Two</li>  
  <li>Three</li>  
</ol>
```

```
1. One  
2. Two  
3. Three
```

Unordered Lists

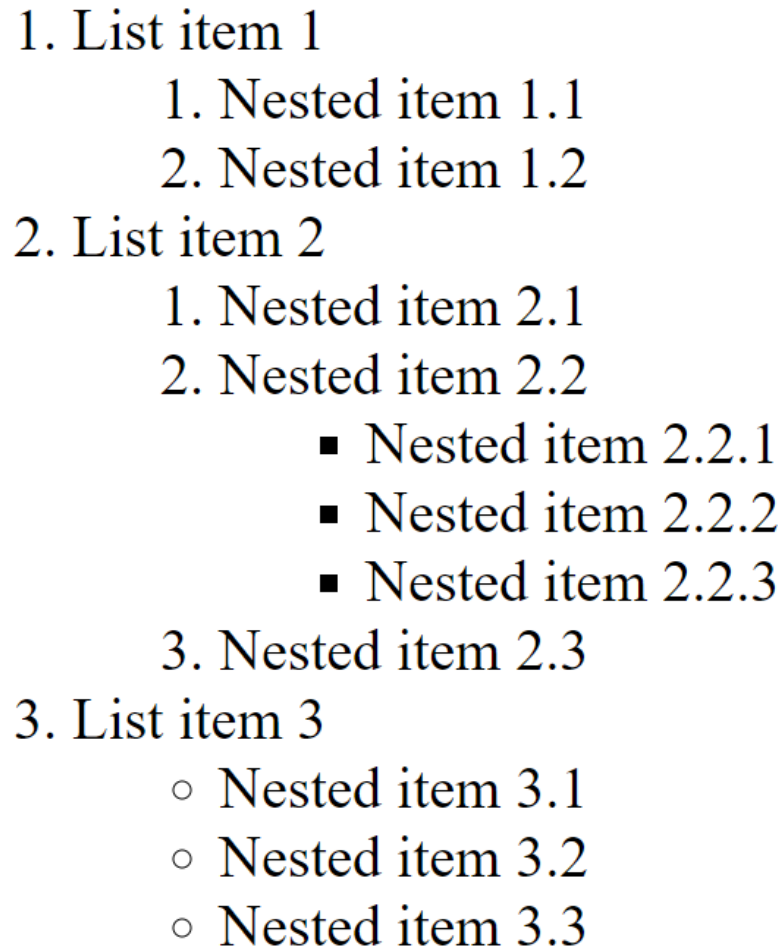
- Create an Unordered List using ``
 - Each holding ``

```
<ul>  
  <li>First item</li>  
  <li>Second item</li>  
  <li>Third item</li>  
</ul>
```

- First item
- Second item
- Third item



- Create a HTML page, holding **nested lists**, like the example:

- 
1. List item 1
 1. Nested item 1.1
 2. Nested item 1.2
 2. List item 2
 1. Nested item 2.1
 2. Nested item 2.2
 - Nested item 2.2.1
 - Nested item 2.2.2
 - Nested item 2.2.3
 3. Nested item 2.3
 3. List item 3
 - Nested item 3.1
 - Nested item 3.2
 - Nested item 3.3

```
<ol>
  <li>List item 1
    <ol>
      <li>Nested item 1.1</li>
      <li>Nested item 1.2</li>
    </ol>
  </li>
  <!-- TODO: put List item 2 and List item 3 here -
->
</ol>
```

1. List item 1
 1. Nested item 1.1
 2. Nested item 1.2

```
<li>List item 2
  <ol>
    <li>Nested item 2.1</li>
    <li>Nested item 2.2
      <ul>
        <li>Nested item 2.2.1</li>
        <!-- TODO: put the next items here-->
      </ul>
    </li>
    <li>Nested item 2.3</li>
  </ol>
</li>
```

2. List item 2

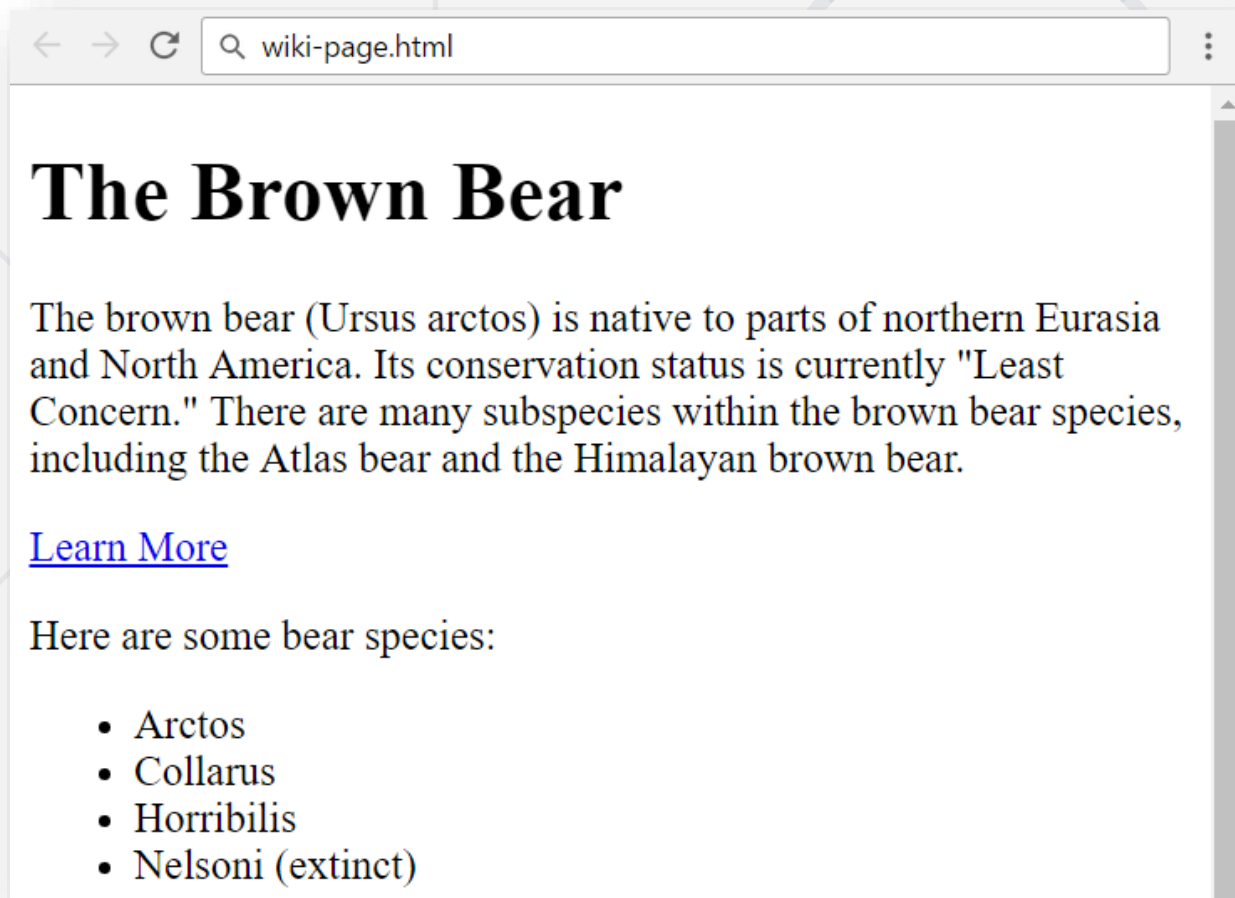
1. Nested item 2.1
2. Nested item 2.2
 - Nested item 2.2.1
 - Nested item 2.2.2
 - Nested item 2.2.3
3. Nested item 2.3

```
<li>
  List item 3
  <ul>
    <li>Nested item 3.1</li>
    <!-- TODO: put the next items here -->
  </ul>
</li>
```

3. List item 3

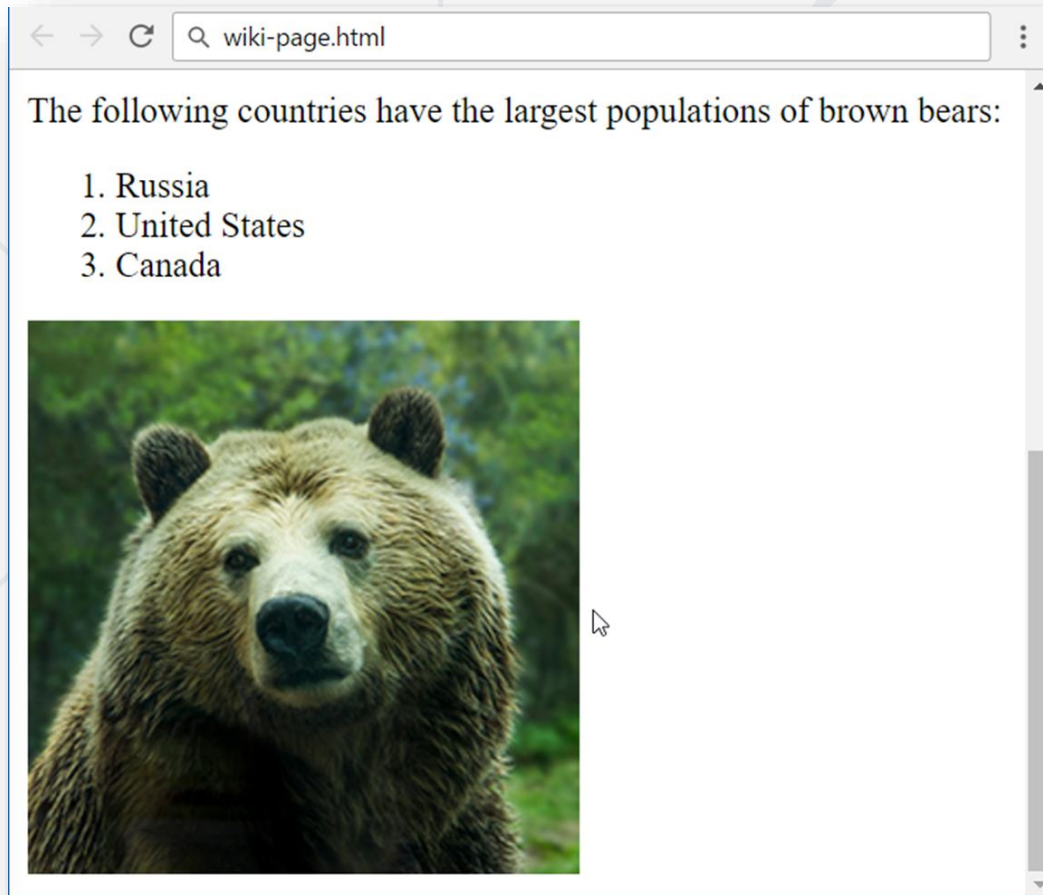
- Nested item 3.1
- Nested item 3.2
- Nested item 3.3

- Create the following HTML page



Problem: Wiki Page

- Create the following HTML page





What is CSS?

- CSS defines styling of the HTML elements
 - Specifies fonts, colors, margins, sizes, positioning, floating, ...
 - CSS rules format: **selector { prop1:val1; prop2:val2; ... }**
- CSS rule example

```
h1 {  
  font-size: 42px;  
  color: yellow;  
}
```



The diagram illustrates the components of a CSS rule. A light blue box contains the CSS rule: `h1 { font-size: 42px; color: yellow; }`. Labels in dark blue boxes with white text point to specific parts of the rule: 'Selector' points to `h1`, 'Declaration' points to the entire rule block, 'Property' points to `font-size`, and 'Value' points to `42px`.

Combining HTML and CSS Files (External Style)

using-css.html

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="styles.css">
  </head>
  <body>
  </body>
</html>
```

styles.css

```
/* CSS here */
```

Element Selector

- Selects all elements with **the specified element name**
- Style all headings

```
h1 {  
    text-align: center;  
    color: #000;  
}
```

- Adding more white space after each paragraph

```
p {  
    padding-bottom: 15px;  
}
```



- Uses the HTML class attribute, and is defined with a "."

```
.class {  
  text-align: center;  
}
```

```
<h2 class="class">...</h2>
```

- Only one HTML tag can be specified to be affected by a class

```
p.right {  
  text-align: right;  
}
```

- The **#id** selector styles the element with the specified id
- Uses the **id attribute** of the HTML element

```
<h1 id="header">My Header</h1>
```

- Defined with a **"#"** in the CSS

```
#header {  
  border: 1px solid #CCC;  
  border-width: 1px 0;  
}
```

- Put a `<style>` element in the HTML `<head>` section

```
<!DOCTYPE html>
<html>
<head>
  <style>
    .red {
      color:red;
    }
  </style>
</head>
</html>
```

```
<body>
  <p class="red">This is red</p>
</body>
```



- The **style** attribute in HTML elements

Attribute "style"

```
<h1 style="color:blue">This is a blue heading</h1>
```

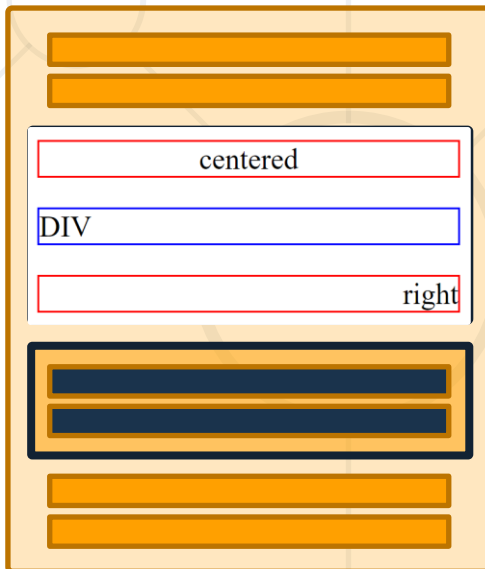
Property

Value



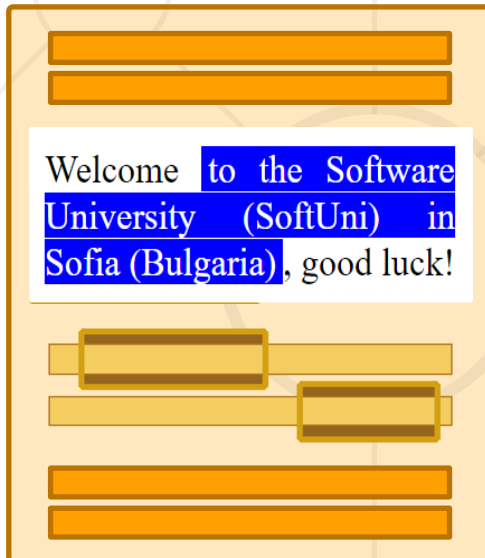
- `<div>` and `<p>` are **block** elements (rectangles)
 - Fill the entire container width
 - Stack vertically one after another

display: block



- **** is an **inline** element
 - Its shape is not always rectangular
 - Can be split across multiple lines

display: inline



- Elements can be also **inline-block**
 - Rectangles arranged one after another
 - Just like words in a sentence

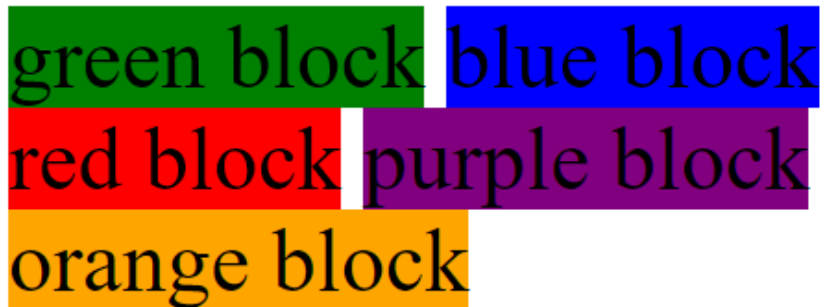
display: inline-block



Problem: Color Blocks

- Use the following HTML and style it as the screenshot

```
<div class="green">green block</div>  
<div class="blue">blue block</div>  
<div class="red">red block</div>  
<div class="purple">purple block</div>  
<div class="orange">orange block</div>
```



green block blue block
red block purple block
orange block

Solution: Color Blocks

```
div {  
  display: inline-block;  
}  
.green {  
  background-color: green;  
}  
.blue {  
  background-color: blue;  
}  
<!-- Implement rest of the styles -->
```

- HTML **describes** structures content
 - Text, images, tables, figures, etc.
- CSS **describes** how HTML elements should be **displayed**
 - Styles may be: **external**, **internal** and **inline**

