

# HTML and CSS Basics

HTML Basic Tags, CSS Introduction



**SoftUni Team**  
Technical Trainers



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**#fund-common**

## 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>
```



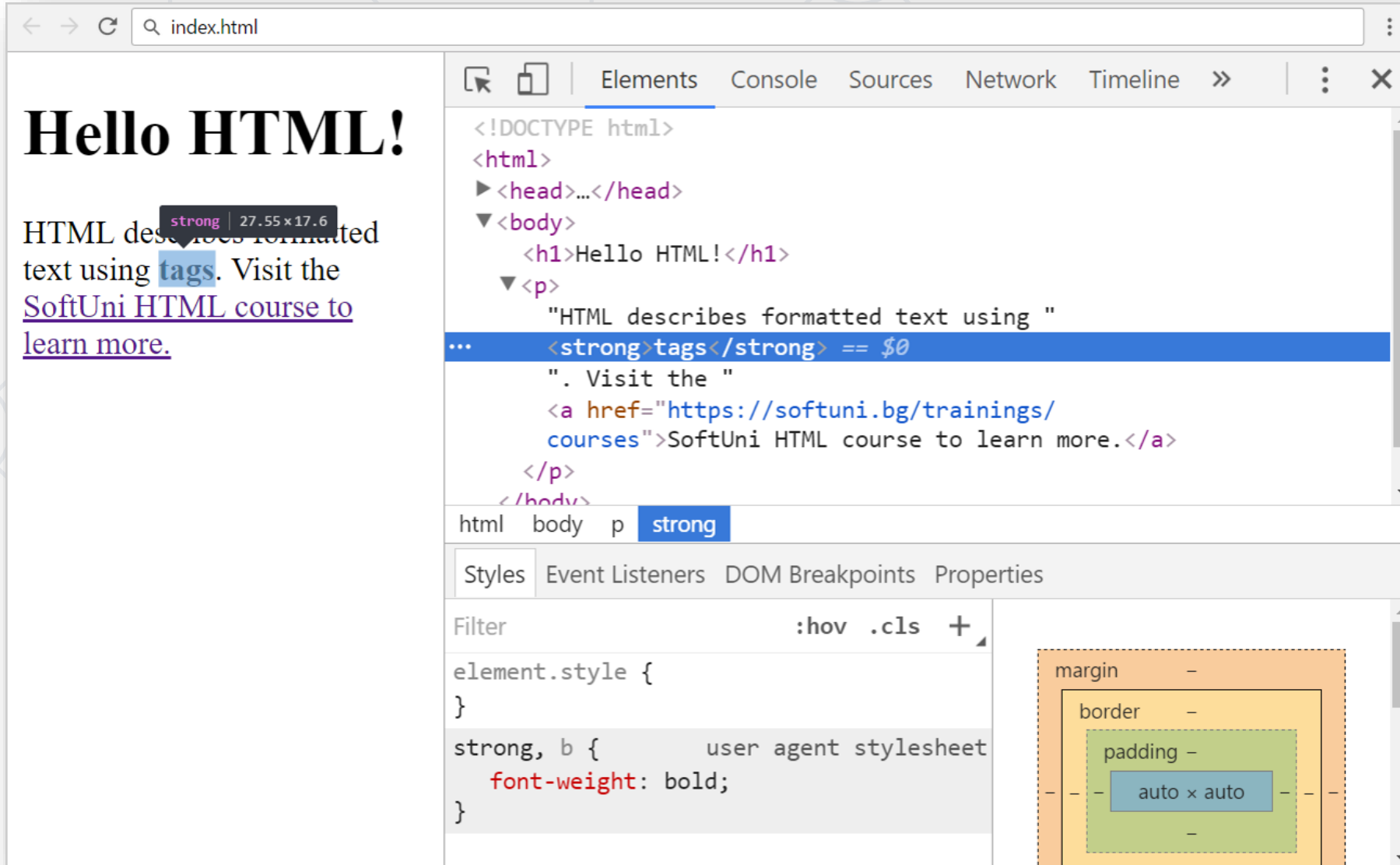
# Problem: Welcome to HTML

- 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 **<strong>** tag





# Developer Tools: [F12] in the Browser



The screenshot displays a web browser window with the address bar showing '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' indicates it is a 'strong' element with dimensions '27.55 x 17.6'.

The Chrome DevTools interface is open on the right, with the 'Elements' tab selected. The DOM tree shows the following structure:

```
<!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>
```

The breadcrumb below the DOM tree shows the path: html > body > p > strong. The 'Styles' pane is active, showing the default user agent styles for 'strong' and 'b' elements:

```
element.style {
}

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

On the right side of the Styles pane, a box model diagram is shown with the following values:

- margin: -
- border: -
- padding: -
- Content area: 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 `<a href="#exercises" target="_blank">exercises</a>`

- Relative hyperlink

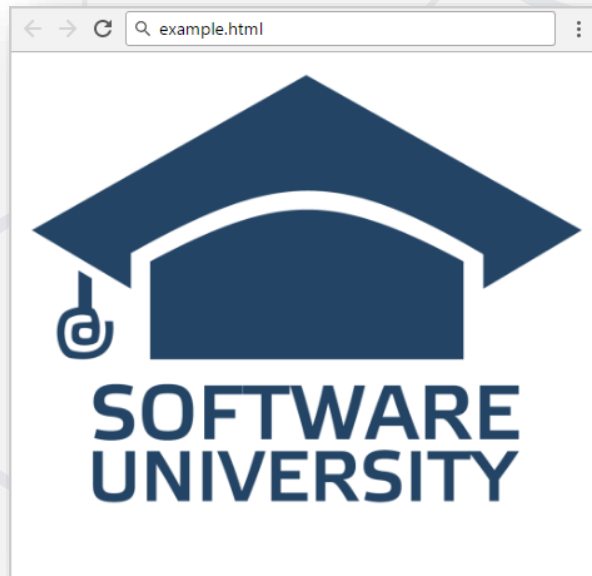
```
<a href="../../../2.%20HTML5-Overview.pptx">presentation</a>
```

# Images

- Images are external files, inserted through the `<img>` tag

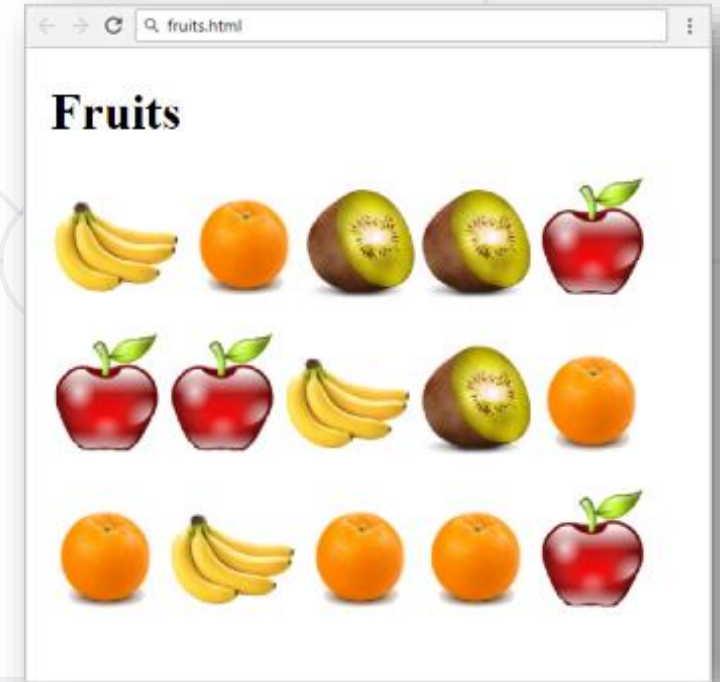
```

```




# 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 `<ol></ol>`
  - Each holding `<li></li>`



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

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



# Unordered Lists

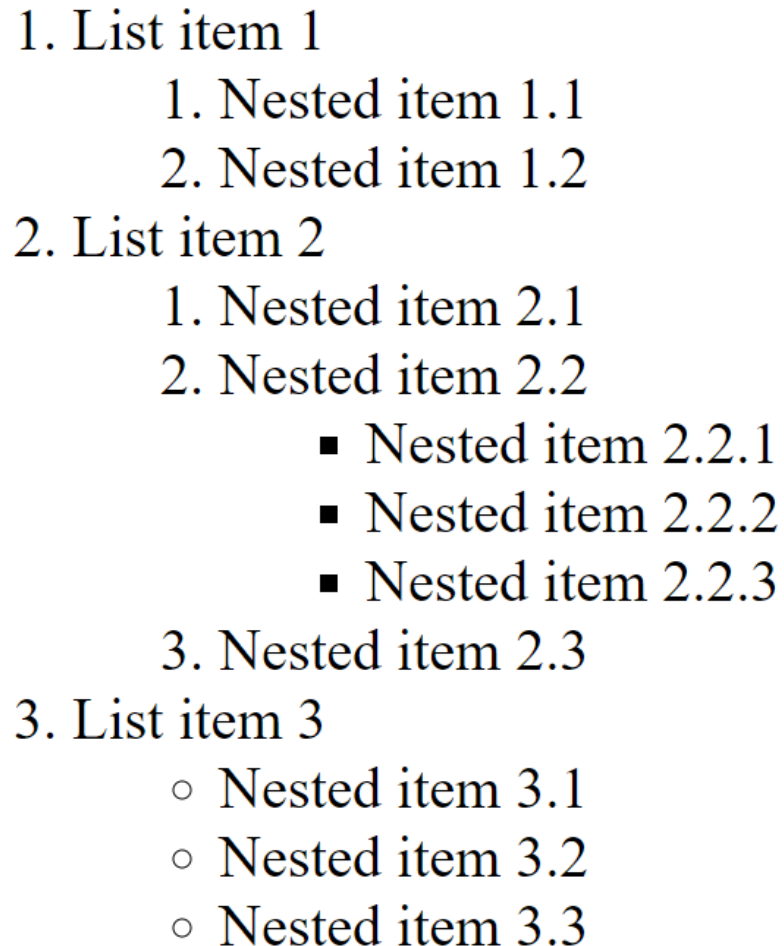
- Create an Unordered List using `<ul></ul>`
  - Each holding `<li></li>`

```
<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

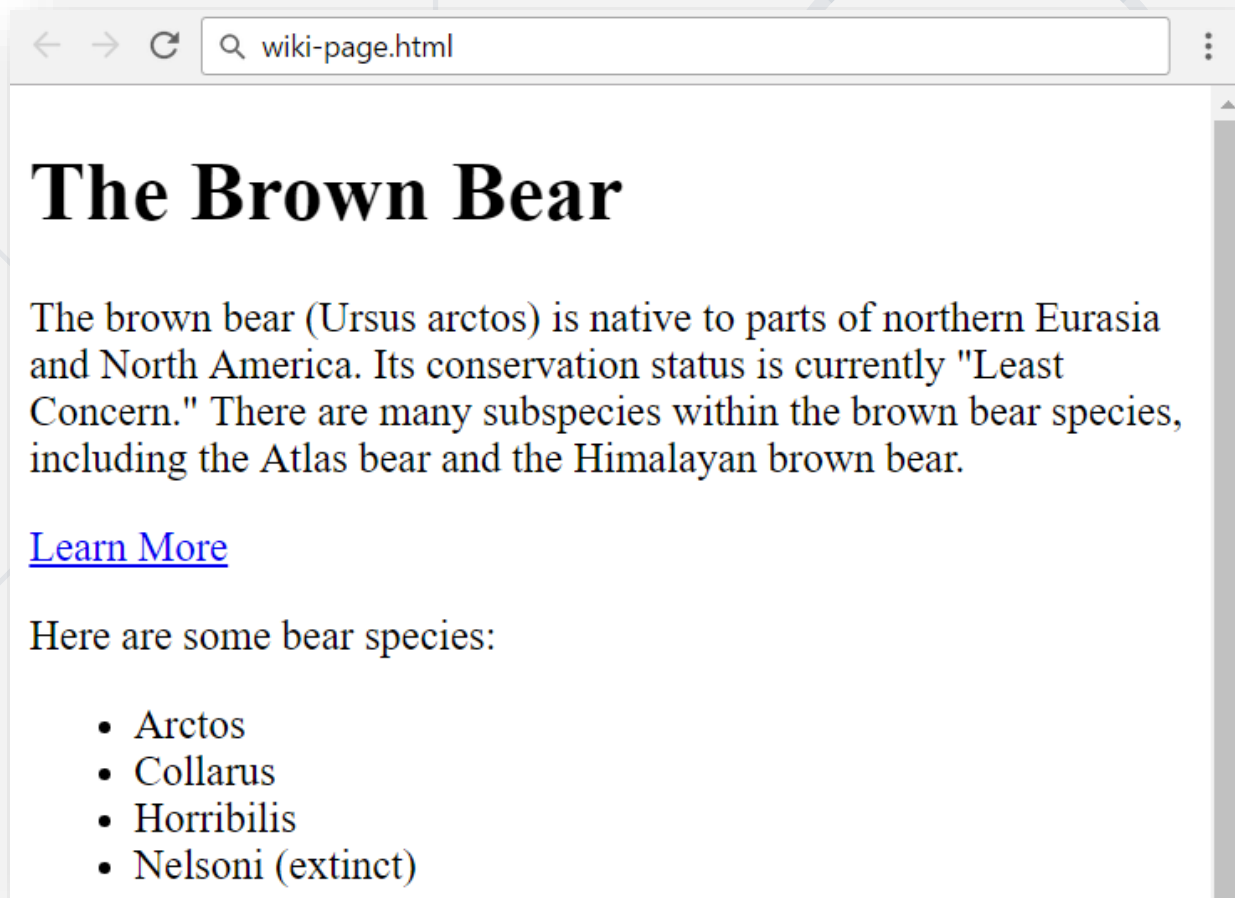
1. Nested item 2.1
2. Nested item 2.2
  - Nested item 2.2.1
  - Nested item 2.2.2
  - Nested item 2.2.3
3. Nested item 2.3

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

## 3. List item 3

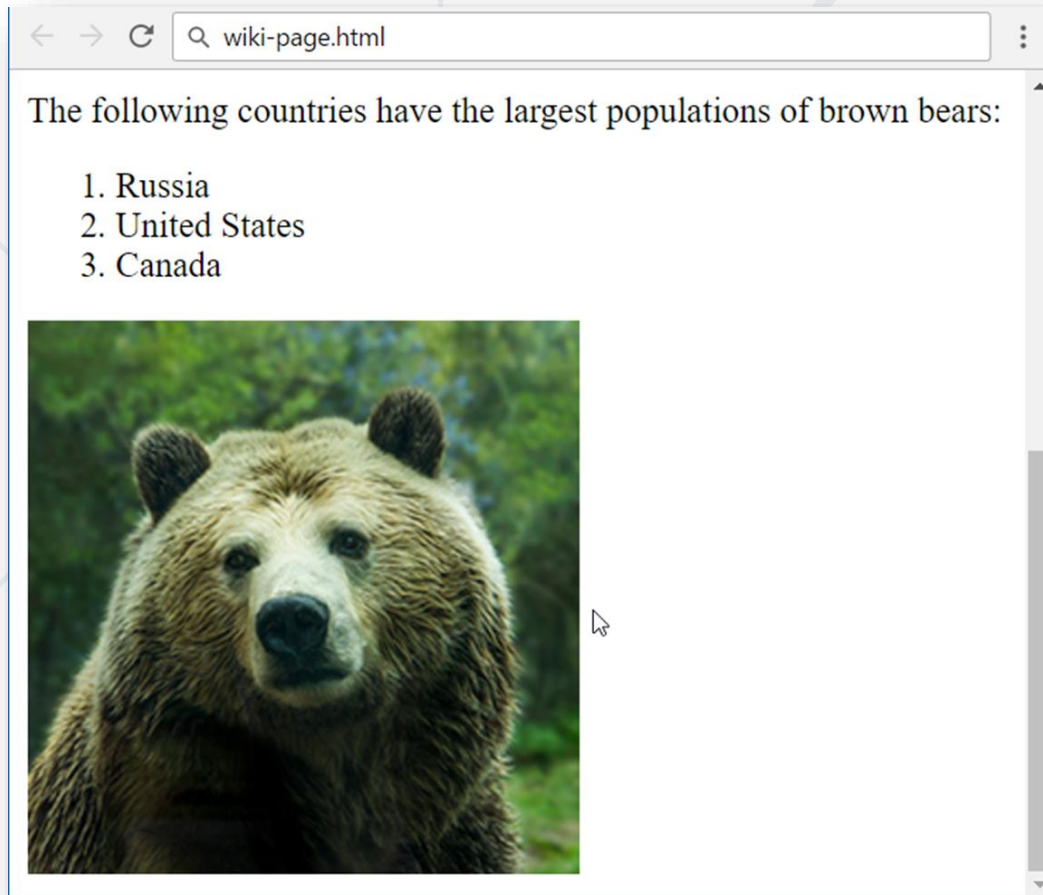
- Nested item 3.1
- Nested item 3.2
- Nested item 3.3

- Create the following HTML page



# Problem: Wiki Page

- Create the following HTML page





**What is CSS?**



# 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;  
}
```

**Selector**

**Declaration**

**Property** **Value**

# 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>
```

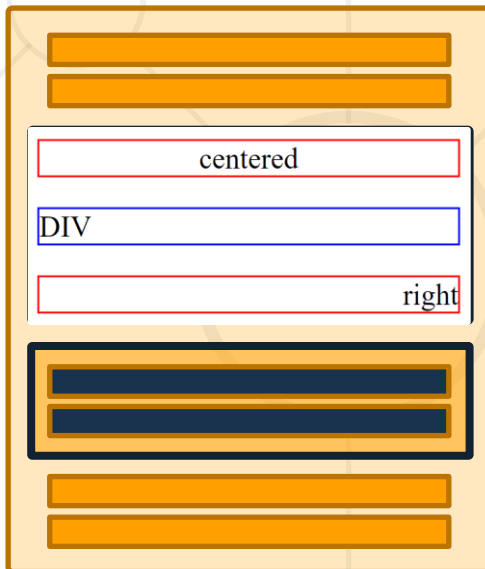
Property

Value



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

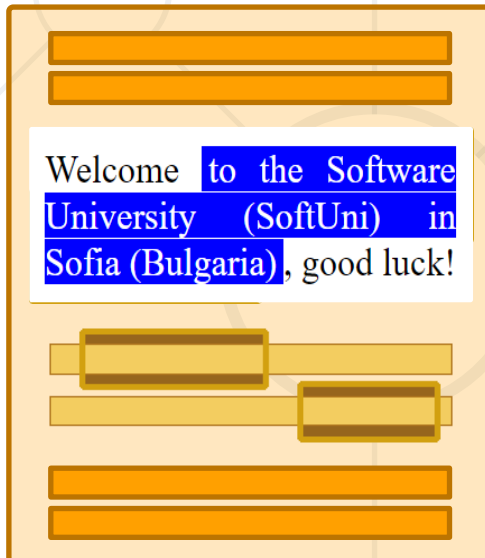
**display: block**





- **<span>** 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

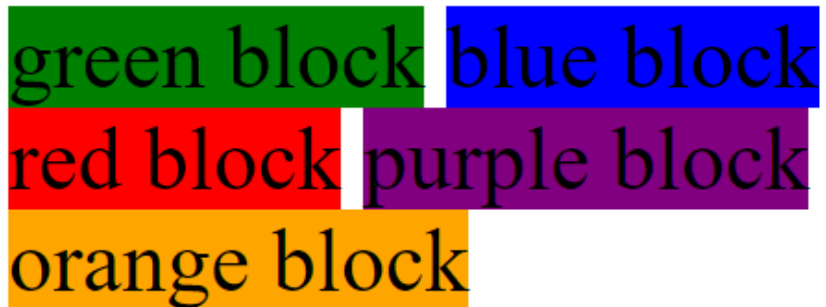
**display: inline-block**



# 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 -->
```

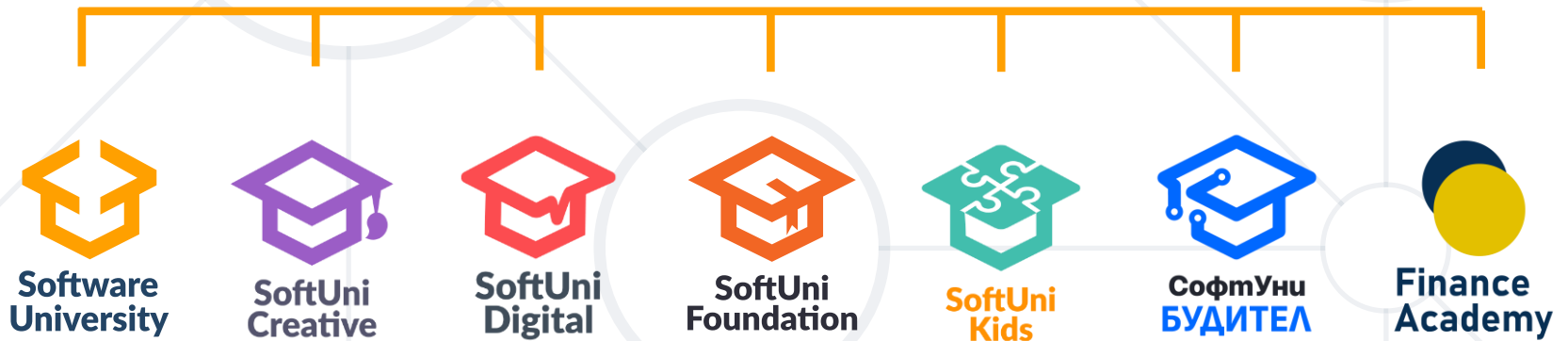
- HTML **describes** structures content
  - Text, images, tables, figures, etc.
- CSS **describes** how HTML elements should be **displayed**
  - Styles may be: **external**, **internal** and **inline**



# Questions?



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