HTML and CSS Basics

HTML Basic Tags, CSS Introduction

SoftUni Team

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#fund-common

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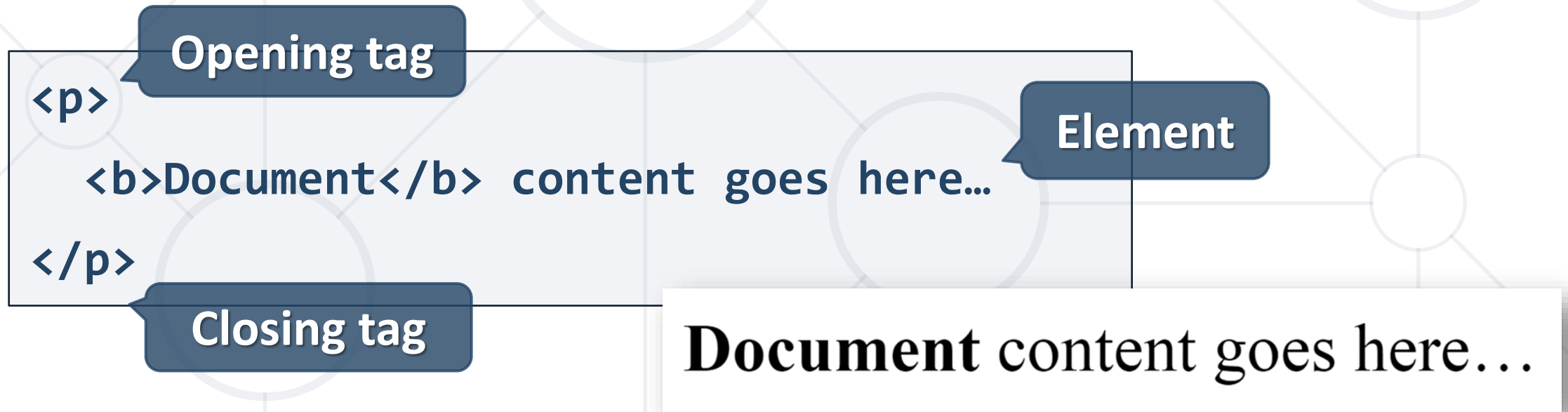3. What is CSS?
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What is HTML?

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

Opening tag

Element

```
<p>
    <b>Document</b> content goes here…
</p>
```

Closing tag

Document content goes here…

HTML – Developer Environments

- **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

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

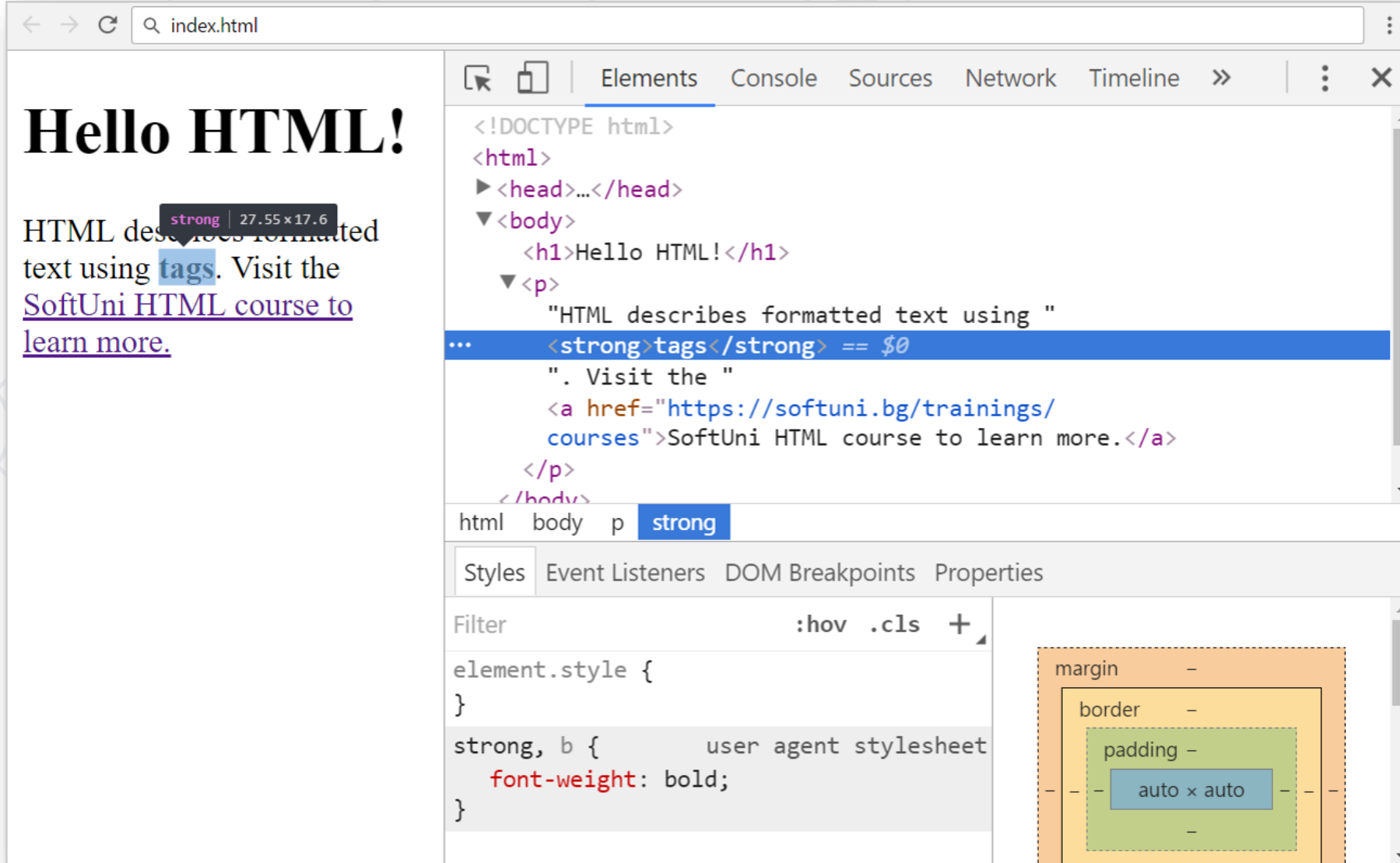

example.html

Hello 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

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

Hyperlinks

- Absolute hyperlink

  Specify the URL

```
<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>
```
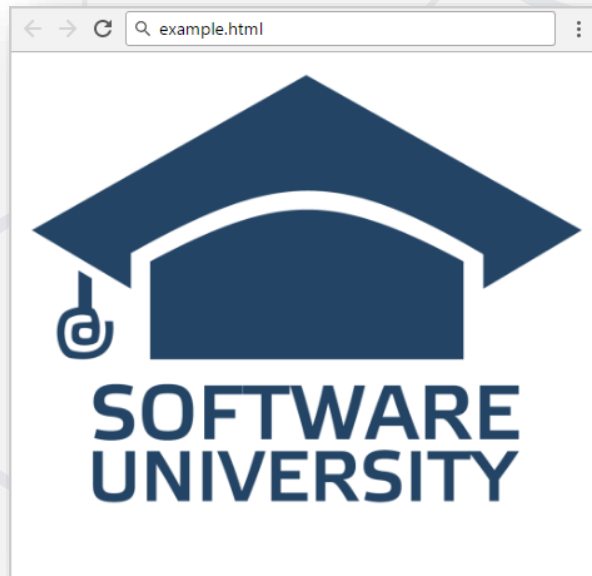
Images

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

```
<img src="images/SoftUni-logo.png" />
```

Problem: Fruits
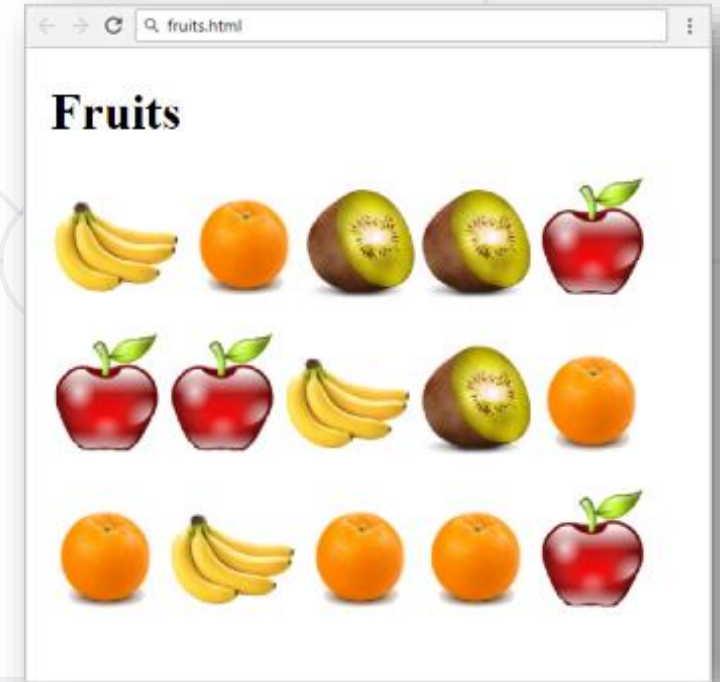
- You are given 4 image files

  - **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

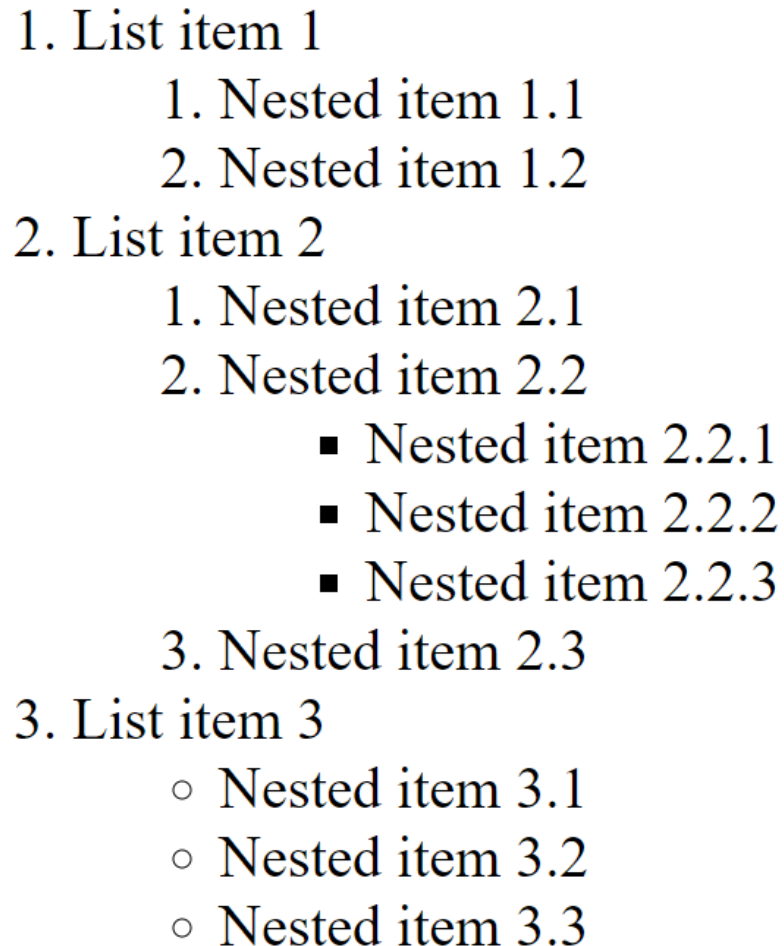- Create an Unordered List using **`<ul></ul>`**
  - Each holding **`<li></li>`**

```
<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

Solution: HTML Lists

```html
<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

Solution: HTML Lists

```
<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>
```
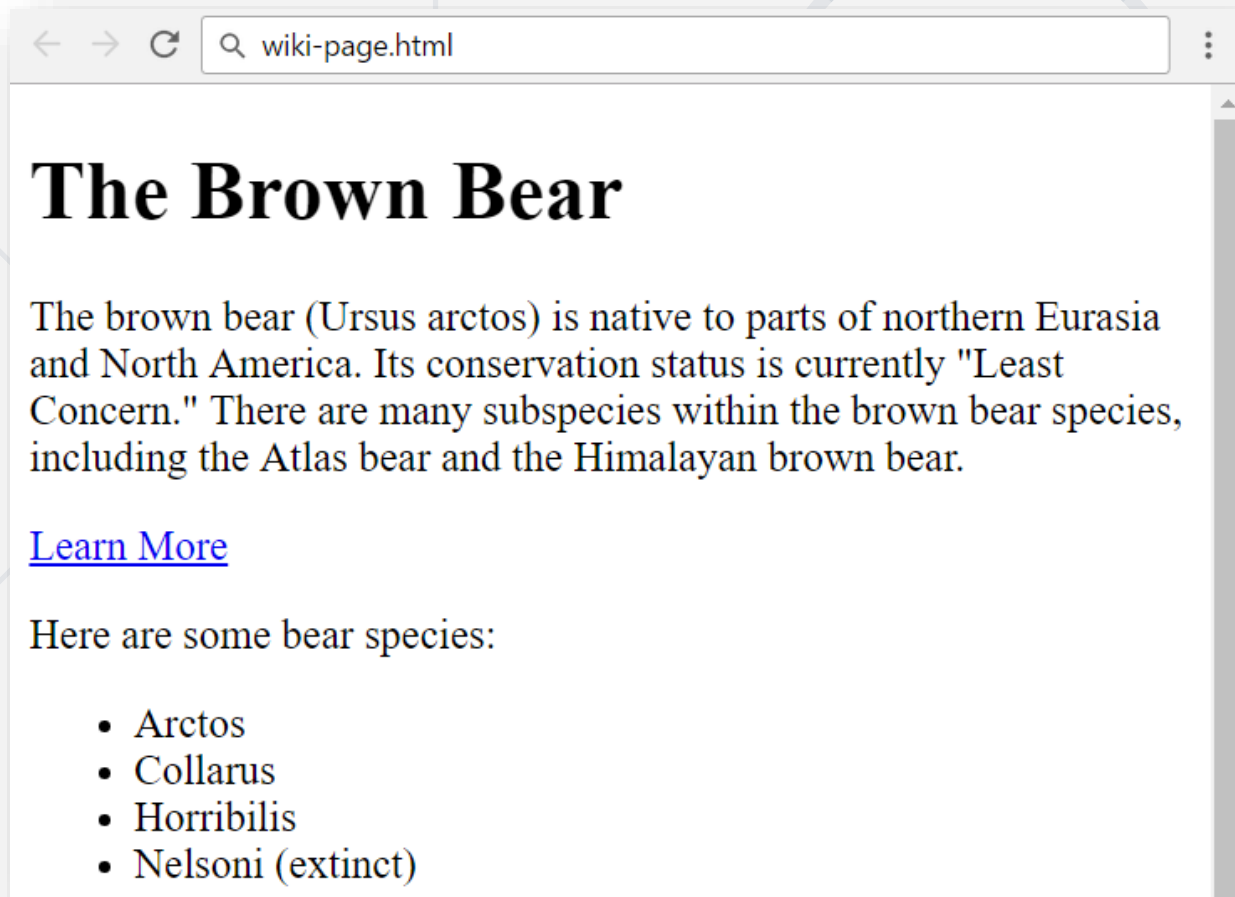
2. List item 2
    1. Nested item 2.1
    2. Nested item 2.2
       ■ Nested item 2.2.1
       ■ Nested item 2.2.2
       ■ Nested item 2.2.3
    3. Nested item 2.3

Solution: HTML Lists

```
<li>
  List item 3
  <ul>
    <li>Nested item 3.1</li>
    <!-- TODO: put the next items here -->
  </ul>
</li>
```
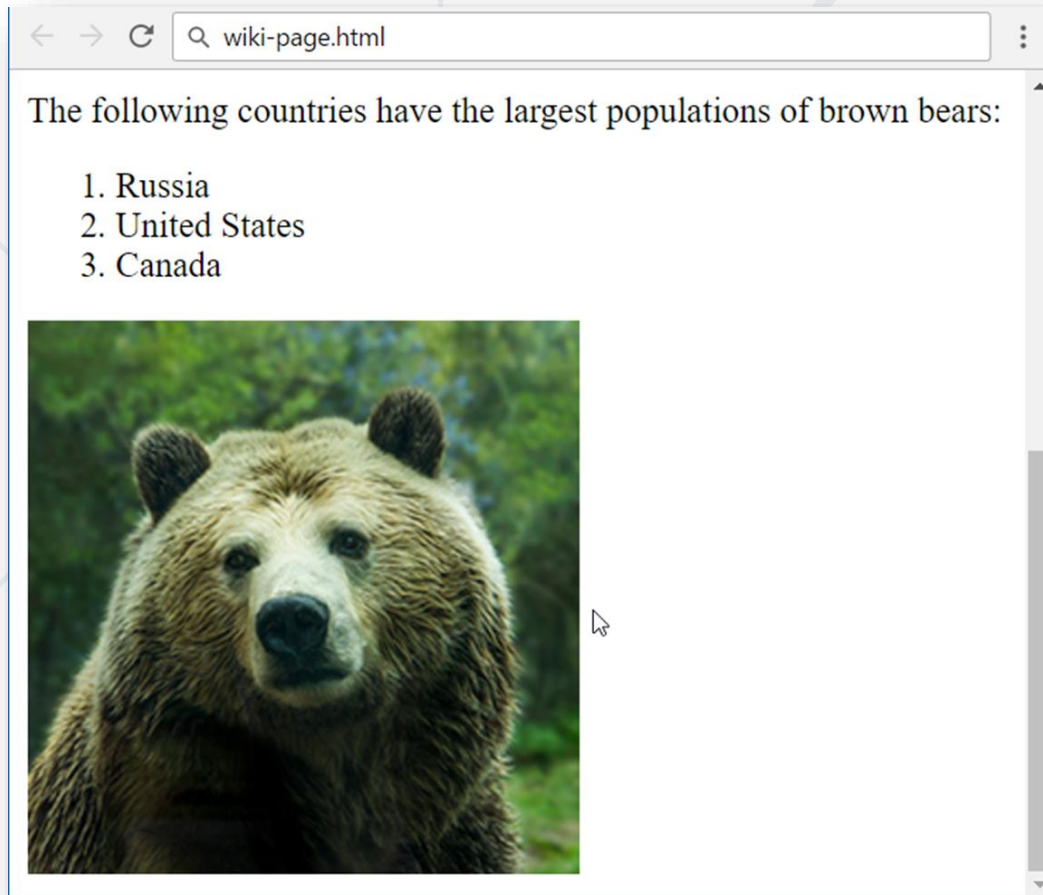
3. List item 3
    - Nested item 3.1
    - Nested item 3.2
    - Nested item 3.3

Problem: Wiki Page

- Create the following HTML page

Problem: Wiki Page

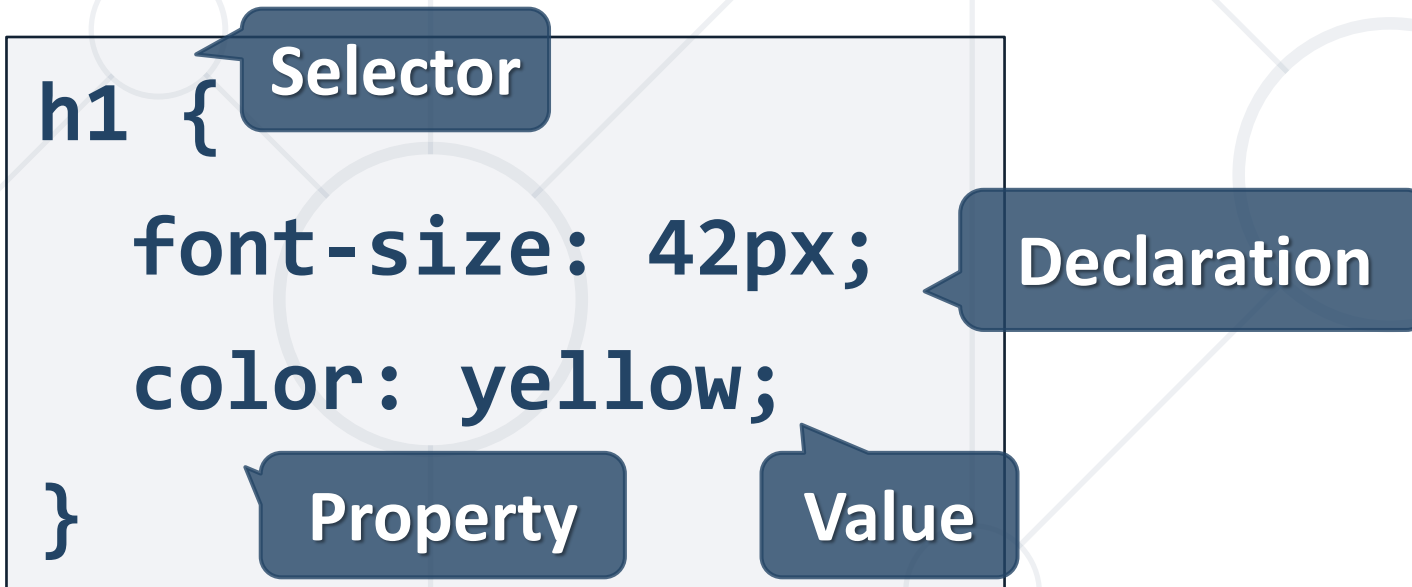- Create the following HTML page

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

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

- Adding more white space after each paragraph

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

Class Selector

- 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;
}
```

Id Selector

- 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;
}
```

Internal Style Sheet

- 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>
```


example.html

This is red

Inline CSS Style

■ The **style** attribute in HTML elements

Attribute "style"

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

Property   **Value**
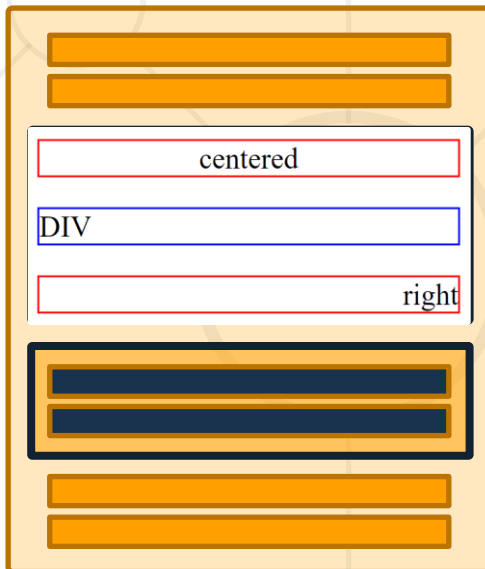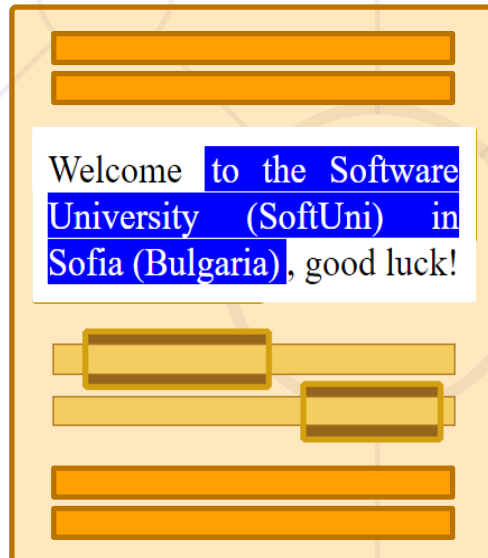
Block Elements

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

display: block

Inline Elements

- **<span>** is an **inline** element

  - Its shape is not always rectangular

  - Can be split across multiple lines

display: inline

Inline-Block Elements

- Elements can be also **inline-block**

  - Rectangles arranged one after another

  - Just like words in a sentence

display: inline-block

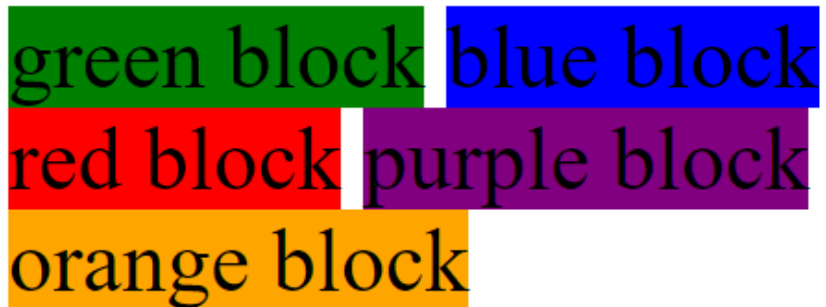- Use the following HTML and style it as the screenshot

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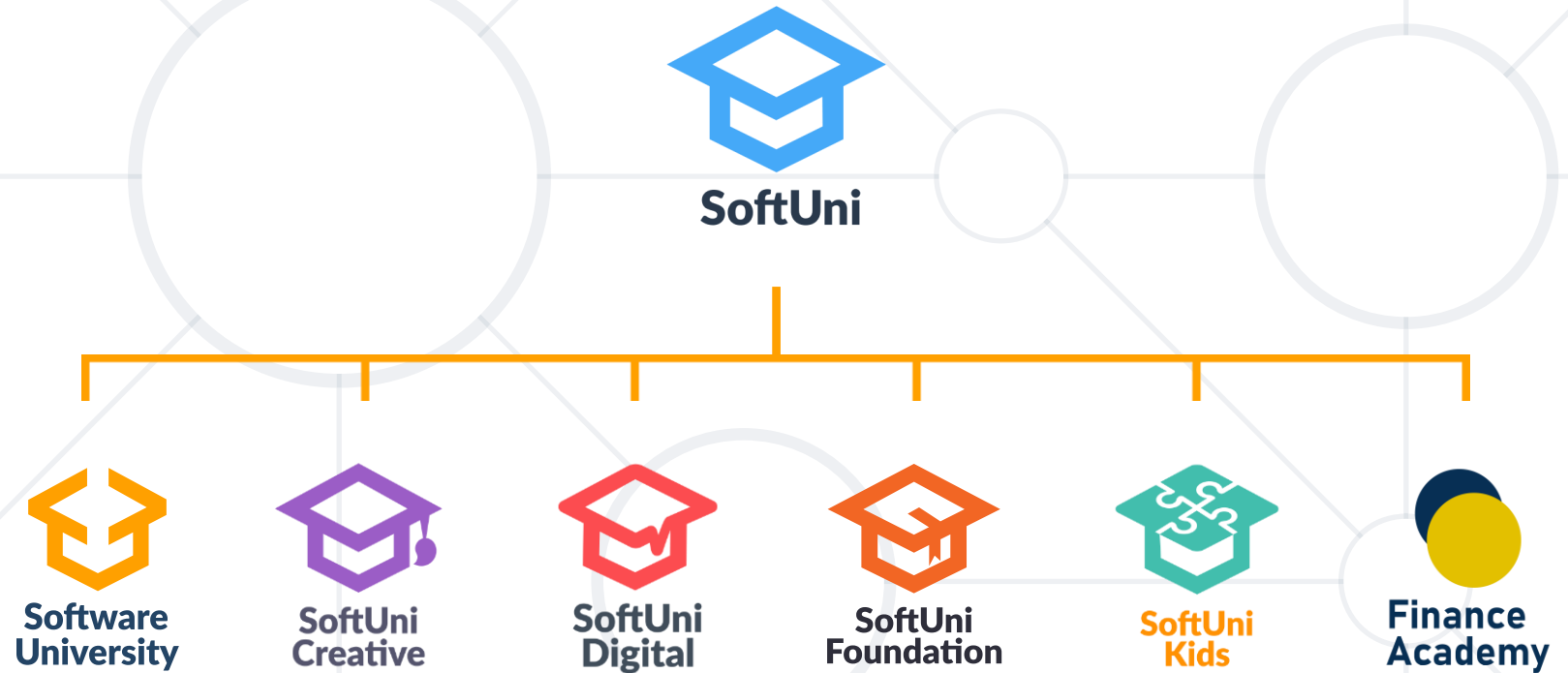
```
div {
  display: inline-block;
}
.green {
  background-color: green;
}
.blue {
  background-color: blue;
}
<!-- Implement rest of the styles -->
```

Summary

- 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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