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CSS

Thinking Inside The Box

- Imagine an invisible box around every HTML element

- CSS allows you to define how each box is presented

Associating Style With an HTML Element

- CSS works by associating rules with HTML elements

- Rule is constructed of
  - Selector – for which element style should be used
  - Declaration – how element should be styled

CSS Properties

- Declaration
  - Property – aspect of the element that should be changed
  - Value – settings that should be used
- Using one rule for multiple elements

```
h1, h2, h3 {
          font-family: Arial;
          color: yellow;}
```

PROPERTY   VALUE

CSS Selectors

- Applying a rule to a specific element (element targeting)

- Universal selector
  Applies to all elements in the document

```css
* {
    background-color: whitesmoke;
}
```

- Type selector
  Matches element names

```css
h1, h2, h3 {
    color: blue;
}
```

ID and Class Selectors

- ID
  - Matches an element based on element **id** attribute value

```html
<p id="introduction">...</p>
```

```css
#introduction {
    color: purple;
}
```

- Class
  - Matches an element based on element **class** attribute value

```html
<p class="note">...</p>
```

```css
.note {
    background-color: yellow;
}
p.note {
    background-color: yellow;
}
```

Using CSS on page

- Internal CSS
- External CSS

- <style> element is used
  for "internal" (on-page) CSS

Main Title

Lorem ipsum dolor sit amet consectetur adipisicing elit. Minus reiciendis cupiditate alias veritatis fugit doloribus neque enim quos! In expedita, distinctio dolorem delectus beatae perferendis autem debitis amet quos quia.

Subtitle

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```html
<html>
    <head>
        <title>Inline CSS Example</title>
        <style type="text/css">
            h1 {
                color: red;
            }
            h2 {
                color: blue;
            }
        </style>
    </head>
    <body>
        <h1>Main Title</h1>
        <p>
            Lorem ipsum dolor sit amet consectetur adipisicing elit.
            Minus reiciendis cupiditate alias veritatis fugit doloribus
            neque enim quos! In expedita, distinctio dolorem delectus
            beatae perferendis autem debitis amet quos quia.
        <p>

        ...

    </body>
</html>
```

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Exercise

External CSS

- CSS is located in a separate file
- <link> element is used for including CSS on page

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

```
<!doctype html>
<html>
    <head>
        <title>Inline CSS Example</title>
        <link rel="stylesheet" href="main.css">
    </head>
    <body>
        <h1>Main Title</h1>
        <p>
            Lorem ipsum dolor sit amet consectetur adipisicing elit.
            Minus reiciendis cupiditate alias veritatis fugit doloribus
            neque enim quos! In expedita, distinctio dolorem delectus
            beatae perferendis autem debitis amet quos quia.
        <p>

        ...

    </body>
</html>
```

```
h1 {
    color: red;
}
h2 {
    color: blue;
}
```

Main Title

Lorem ipsum dolor sit amet consectetur adipisicing elit. Minus reiciendis cupiditate alias veritatis fugit doloribus neque enim quos! In expedita, distinctio dolorem delectus beatae perferendis autem debitis amet quos quia.

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Exercise

Child and Descendant Selectors

- Child
  - Matches an element that is a direct child of another

```css
p > a {
    color: ■blueviolet;
}
```

```html
<p>
    <a href="google.com">Google</a>
</p>
```

- Descendant
  - Matches an element that is a descendent of another specified element

```css
p span {
    background-color: ■greenyellow;
}
```

```html
<p>
    <a href="mailto:office@bgit.rs">
        office@<span>bgit.rs</span>
    </a>
</p>
```

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Exercises

Defining Rules Correctly

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- When there is multiple rules defined for the same element, which rule will be used?

- **Last** rule – when both selectors are identical, last one will be used

- More **specific** – if one is more specific than the other, the more specific one will be used

- **Important** – rule property can be append with **!important**, and it will be treated as a property with higher priority

```
.note {
    color: ■yellow !important;
}
```

CSS Rules Inheritance

- Parent element property is propagated on child elements
- Force a child property to use a parent's property value (**inherit**)

```html
<div class="page">
    <h1>Potatoes</h1>

    <p>There are dozens of different potatovarieties.</p>

    <p>They are usually described as early, second early
        and maincrop potatoes.</p>
</div>
```

```css
body {
    font-family: Arial, Verdana, sans-serif;
    color: #665544;
    padding: 10px;
}
.page {
    border: 1px solid #665544;
    background-color: #efefef;
    padding: inherit;
}
```
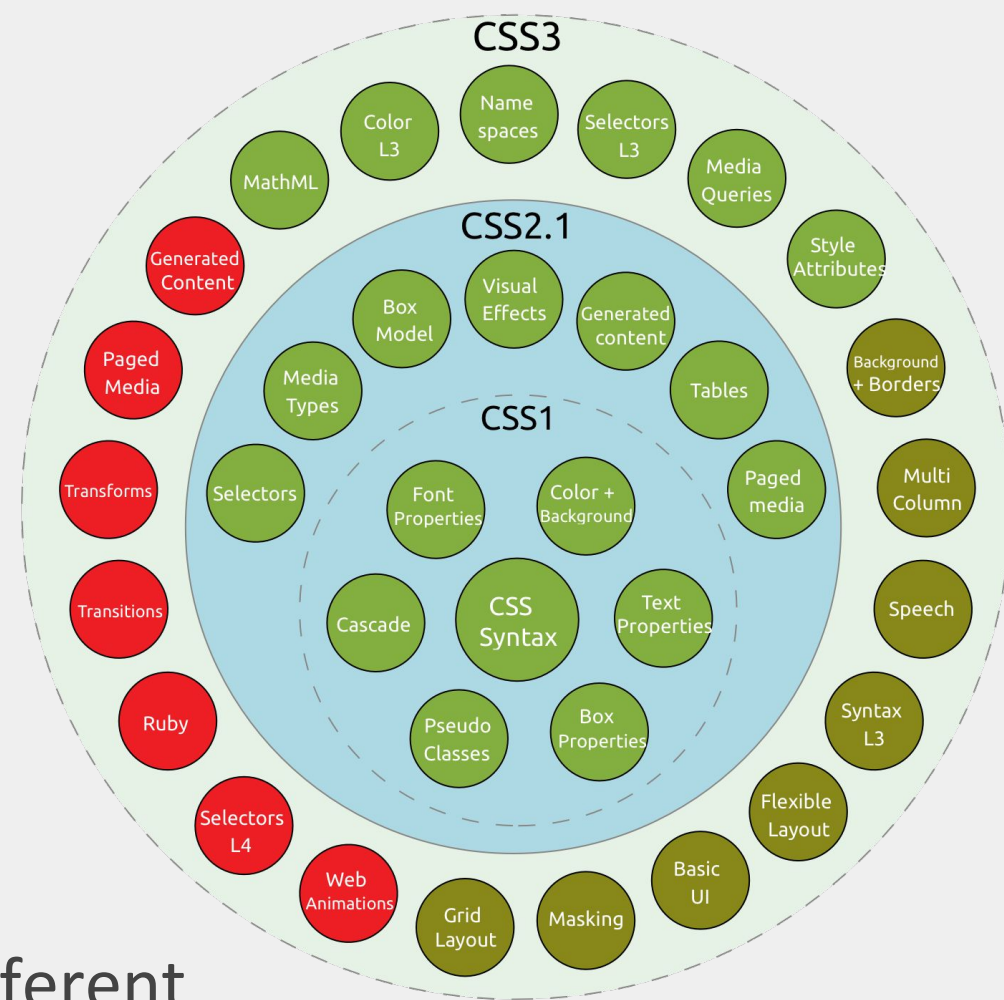
Potatoes

There are dozens of different potatovarieties.

They are usually described as early, second early and maincrop potatoes.

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Exercises

CSS versions

- CSS1 released in 1996
- CSS2 released in 1998
- CSS3 currently in development

- Browser support https://caniuse.com/

- Browsers can show some styles slightly different
  - Check the website in different browsers
  - Use one of online services to see what the website looks like in different browsers

BIT Summary

- CSS treats each HTML element as if it appears inside its own box and uses rules to indicate how that element should look.

- Rules are made up of selectors and declarations.

- Different types of selectors allow you to target your rules at different elements.

- Declarations are made up of two parts: the properties of the element that you want to change, and the values of those properties.

- CSS rules usually appear in a separate document, although they may appear within an HTML page.

References

CSS History - https://goo.gl/9eU6VA

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