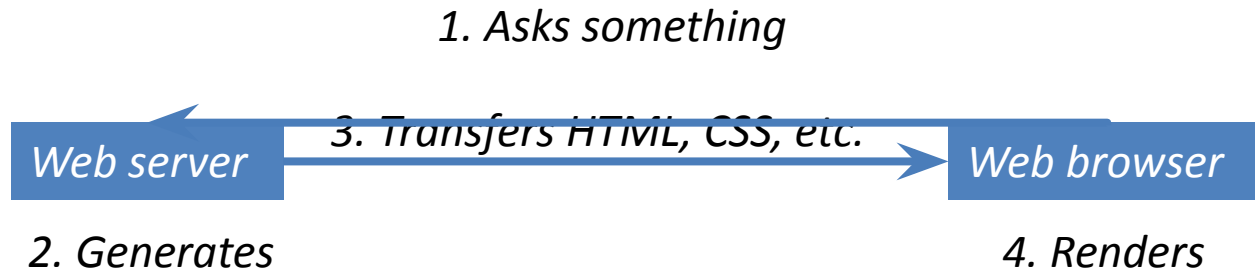# HTML+CSS course

Module 1. Introduction: Terminology, Syntax, Structure, Coding Practices

HTML and CSS: Agenda

- Differences
- Terms
- Syntax
- Structure

- Linking together

Background – how Internet works

1. Asks something

Web server   3. Transfers HTML, CSS, etc. →   Web browser

2. Generates   4. Renders

Background – how Internet works

Open HTML →

Web browser

Render HTML

HTML & CSS: first look

- HTML is a **hyper text markup language** created to give content structure and meaning.
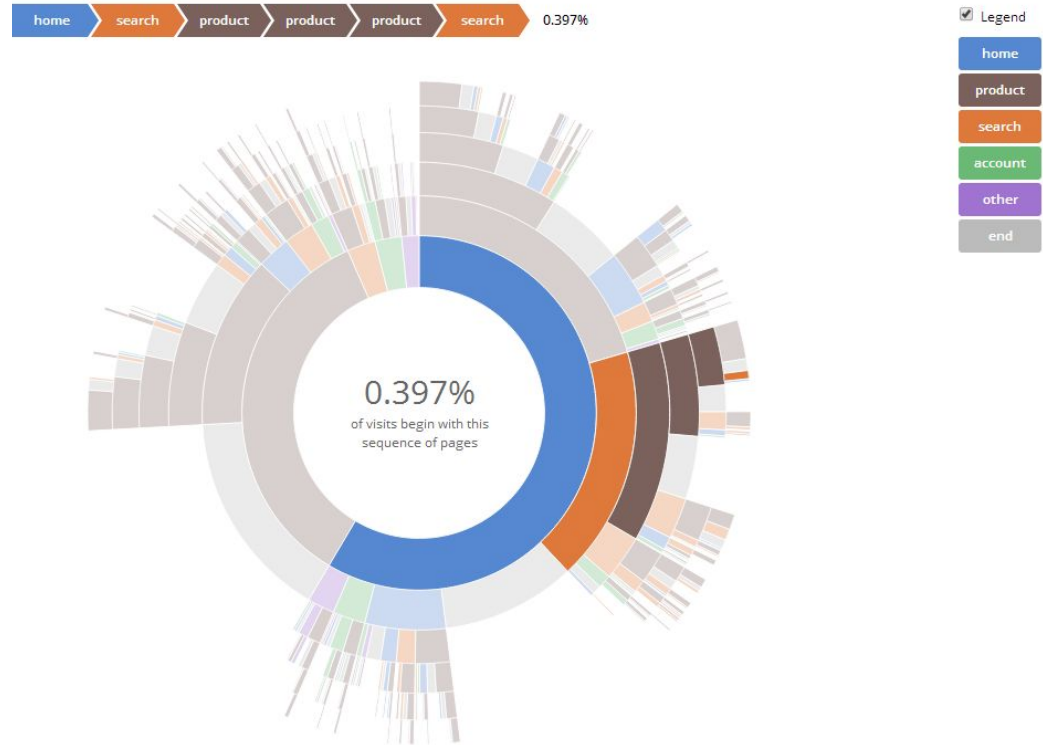- CSS, or **cascading style sheets**, is a presentation language created to give content style and appearance.

Example: HTML element <p> … </p> is used to

display few words on a web page, CSS selects

this element to determine its appearance.

Your long–term goal

- http://bl.ocks.org/

D3.JS library:
JavaScript renders
SVG elements inside
XHTML file and uses
CSS to style SVG.

HTML versions & declaration

Version	Year
HTML	1991
HTML+	1993
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2012

Browser can only display an HTML page 100% correctly if it knows the HTML type and version used

Declare HTML5:
<!DOCTYPE html>

HTML Terms: elements

- **Elements:**

  h1, h2, h3, h4, h5, h6, p, a, div, span, strong, em, etc.

- **Tags are decorating elements:**

  - **some text** — content inside opening and closing tags.

  - **
** — the void elements are *area, base, br, col, hr, img, input, link, meta, param, etc.*

- **Attributes:**

  - Visit us!

General HTML document

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Hello World</title>
    </head>
    <body>
        <h1>Hello World</h1>
        <p>This is a website<br>with <em>br</em> element</p>
        <a href="http://softserve.ua">Visit us!</a>
    </body>
</html>
```
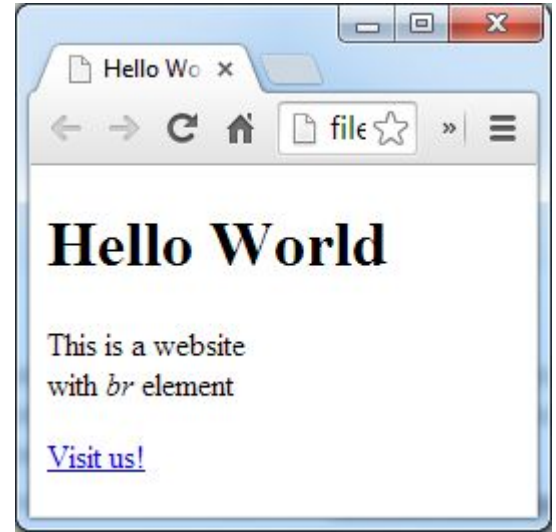
H1 is the same as **h1**

**
 and <br /> are OK!**
**
 is better.**

SoftServe

```html
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Hello World</title>
    </head>
    <body>
        <h1>Hello World</h1>
        <p>This is a website<br>with <em>br</em> element</p>
        <a href="http://softserve.ua">Visit us!</a>
    </body>
</html>
```

CSS Terms, Structure & Syntax

- **Selectors:**

  span { ... }

- **Properties and values:**

  p {

    color: #ff0;

    font–size: 16px;

  }

```
Selector → p {
Declaration → color: #ff0;
            font-size: 16px;
}           ↑           ↑
         Property    Value
```

SoftServe

CSS Selectors

HTML	CSS
...	p { ... }
<div class="awesome">...</div>	.awesome { ... }
<div id="brilliant">...</div>	#brilliant { ... }
<div id="somediv"> <h2>Some text</h2> <p>Other text</p> </div>	div#somediv h2 { … } div#somediv p { … }

Comments within HTML & CSS

- **HTML comments** wrap the content starting with <!-- and end with -->.

- **CSS comments** wrap the content starting with /* and end with */.

Referencing CSS in HTML

■ **Inline CSS**

<p style="color: #f60; font-size: 16px">

■ **Internal CSS**

<style type="text/css">

p {...}

</style>

<p> ... </p>

■ **External CSS File**

<link rel="stylesheet" href="file.css">