

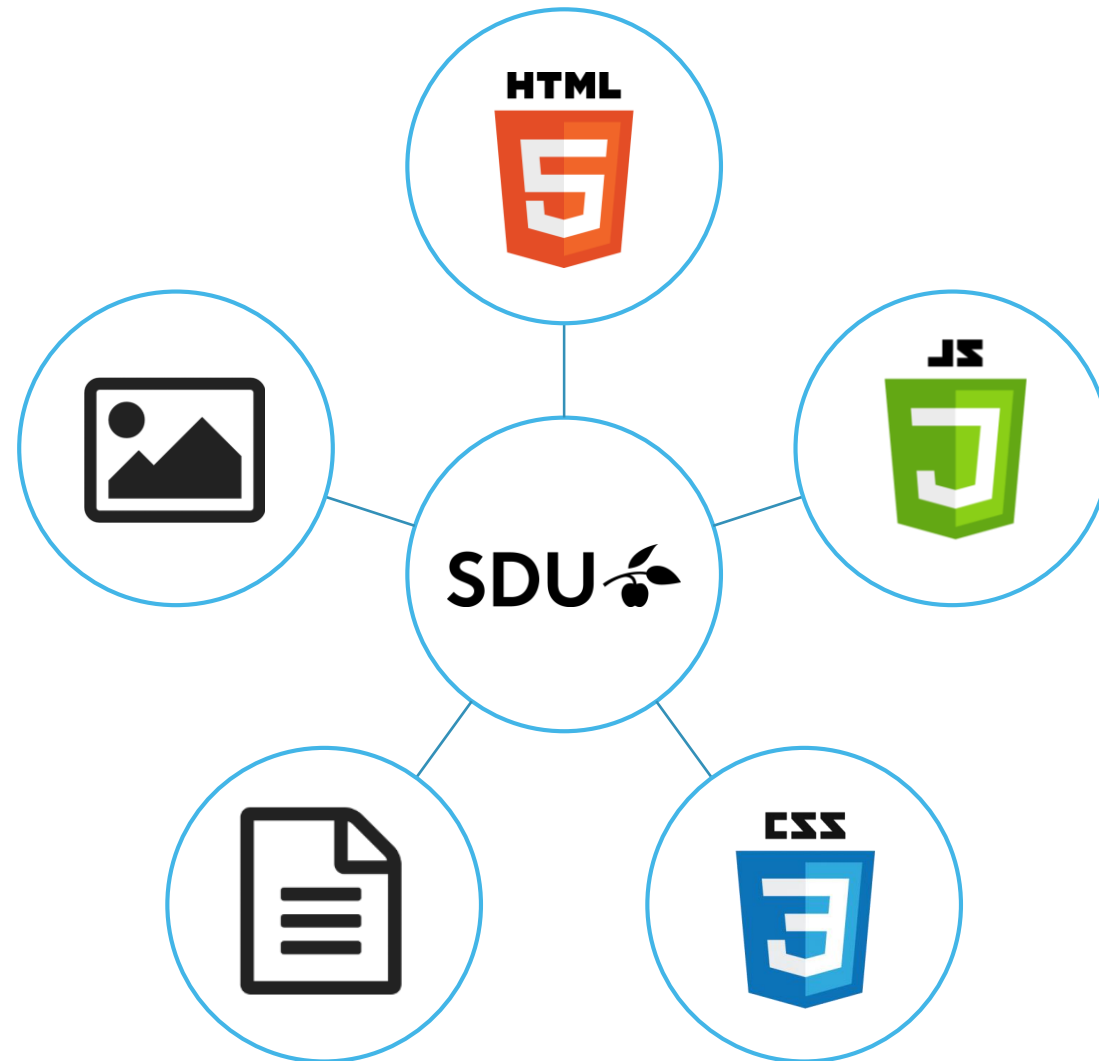
# HTML



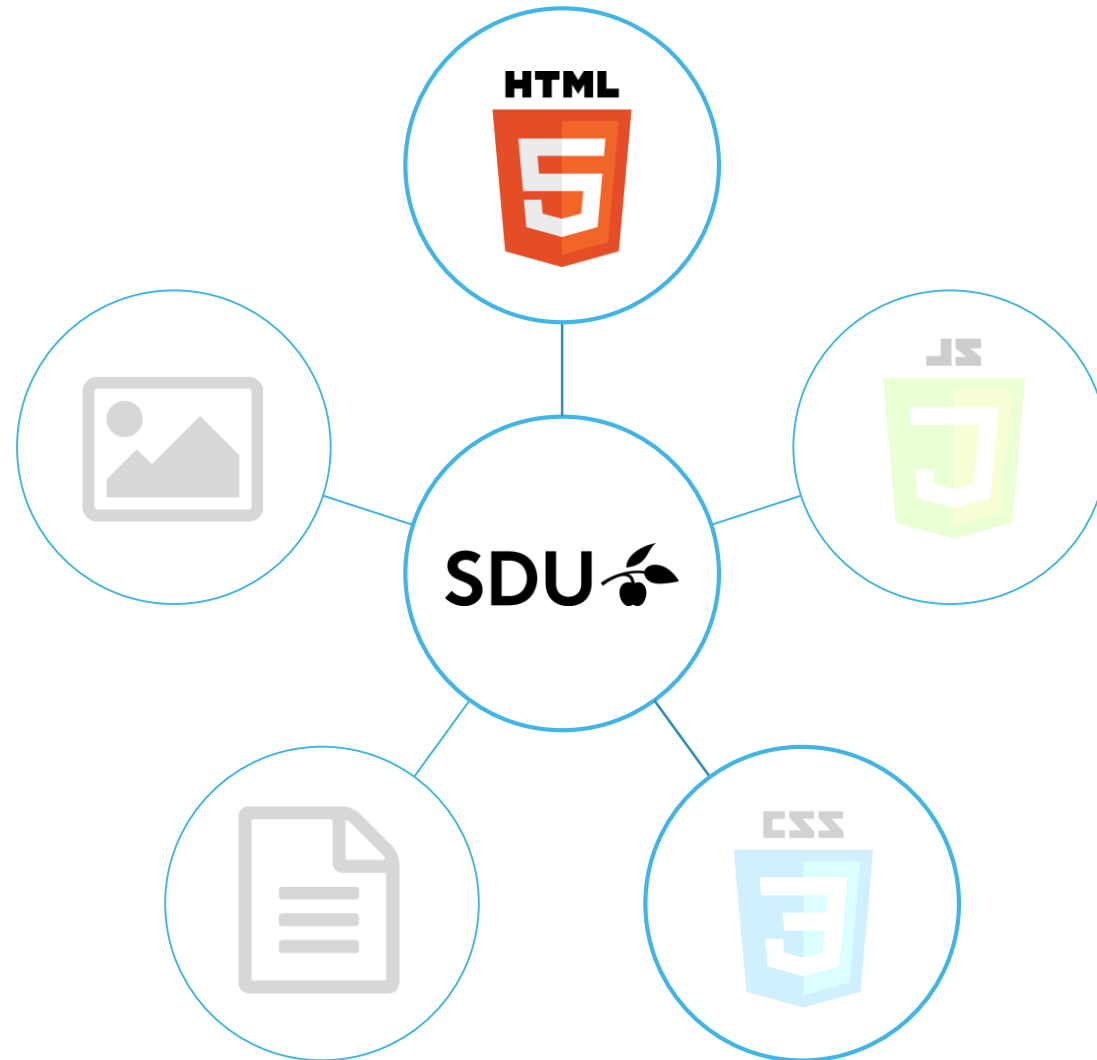
20. februar 2018



# What is a website?



# What is a website?



# What is a website? (cont.)



HTML – HyperText Markup Language  
Defines the structure of a webpage



CSS – Cascading Style Sheet  
Defines the visual presentation of HTML elements



JS – Javascript  
Handles user interaction and dynamic content



# HyperText Markup Language

```
<li><a href="#">Carousels</a>  
<li><a href="variable-width-slider.html">Variable Image Width Slider</a>  
<li><a href="testimonial-slider.html">Testimonial Slider</a>  
<li><a href="featured-work-slider.html">Featured Work Slider</a>  
<li><a href="equal-column-slider.html">Equal Column Slider</a>  
<li><a href="video-slider.html">Video Slider</a>  
<li><a href="mini-bootstrap-carousel.html">Mini Slider</a>
```

# XML and HTML



HTML is basically XML

Both are based on SGML

XML allows for custom tags

HTML has a predefined set of tags

# Markup language



A markup language is a set of markup tags

The purpose of the tags is to group and describe content

# The syntax



1. DOCTYPE
2. Elements
3. Attributes
4. Comments



# DOCTYPE



Required header for HTML documents

Leftover from SGML

Doesn't really serve a real purpose today

Not really a tag, more a declaration which tells the browser what kind of HTML to expect

Example: `<!DOCTYPE html>`

Above is the Document type declaration for HTML5

# Elements



<element>                      ...                      </element>  
Start tag           Content           End tag

<tag> content goes here </tag>

# Attributes



`<element attribute="value">content goes here</element>`

Attribute    Value

# Comments



<!-- comment here -->

Start      Comment      End

# HTML Example



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <meta charset="utf8"/>
```

```
    <title>This is a website</title>
```

```
  </head>
```

```
  <body>
```

```
    <!-- comment -->
```

```
    <p>Text here</p>
```

```
  </body>
```

```
</html>
```

Doctype should always be at the top of your HTML document.



# HTML Example



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <meta charset="utf8"/>
```

```
    <title>This is a website</title>
```

```
  </head>
```

```
  <body>
```

```
    <!-- comment -->
```

```
    <p>Text here</p>
```

```
  </body>
```

```
</html>
```

Defines the whole document.

Should be the top level of elements.

# HTML Example



```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf8"/>
    <title>This is a website</title>
  </head>
  <body>
    <!-- comment -->
    <p>Text here</p>
  </body>
</html>
```

Contains special elements the instruct the browser where to find stylesheet, provide metadata and more.

Elements in the <head> is not visible.

# HTML Example



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <meta charset="utf8"/>
```

```
    <title>This is a website</title>
```

```
  </head>
```

```
  <body>
```

```
    <!-- comment -->
```

```
    <p>Text here</p>
```

```
  </body>
```

```
</html>
```

Contains document content.

I.e. what is shown inside the browser.

# HTML Example



```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf8"/>
    <title>This is a website</title>
  </head>
  <body>
    <!-- comment -->
    <p>Text here</p>
  </body>
</html>
```

# Demo time



DEMO TIME



# Nesting



The previous example introduces an important concept of HTML: **Nesting**

Nesting is when elements wraps other elements

When you create markup you should indicate nesting via indentation

Either use 2-4 spaces or a tab. In my opinion spaces is preferable.

# The document hierarchy



The family hierarchy is described in terms of relationship

All elements in a document have a parent, except the root element

- In our case that is `<html>`

Any parent can have multiple children inside (nested inside)

Each child may have a multiple siblings (placed alongside)

# Essential element tags



Primary structure	Head elements	Structural elements (block)	Formatting elements (inline)
<code>&lt;html&gt;</code> <code>&lt;head&gt;</code> <code>&lt;body&gt;</code>	<code>&lt;title&gt;</code> <code>&lt;meta&gt;</code> <code>&lt;link&gt;</code>	<code>&lt;p&gt;</code> <code>&lt;br&gt;</code> <code>&lt;h1&gt;</code> - <code>&lt;h6&gt;</code> <code>&lt;ul&gt;</code> <code>&lt;ol&gt;</code> <code>&lt;a&gt;</code> <code>&lt;img&gt;</code> <code>&lt;div&gt;</code>	<code>&lt;em&gt;</code> <code>&lt;i&gt;</code> <code>&lt;strong&gt;</code> <code>&lt;b&gt;</code> <code>&lt;q&gt;</code> <code>&lt;blockquote&gt;</code> <code>&lt;span&gt;</code>



## Exercise

- Make a simple html page
- Add 2 headlines (different sizes)
- At least 2 paragraphs

# Essential attributes



Link      `<link rel="stylesheet" type="text/css" href="stylesheets/styles.css" />`

Image      ``

Anchor      `<a href="https://sdu.dk">University of Southern Denmark</a>`



# Exercise - Recreate Google page



- Identify the parts of the page
- Add them to your HTML document



# HTML5 – Structural elements



Tag	Description
<article>	Defines an article in a document
<aside>	Content aside the page content
<details>	Defines additional details that the user can view or hide
<dialog>	Defines a dialog box or window
<figcaption>	Defines a caption for a <figure> element
<figure>	Defines self-contained content
<footer>	Defines a footer for a document or section
<header>	Defines a header for a document or section
<main>	Defines the main content of a document

Tag	Description
<mark>	Defines marked/highlighted text
<menuitem>	Defines a command/menu item that the user can invoke from a popup menu
<meter>	Defines a scalar measurement within a known range (a gauge)
<nav>	Defines navigation links
<progress>	Represents the progress of a task
<section>	Defines a section in a document
<summary>	Defines a visible heading for a <details> element
<time>	Defines a date/time
<wbr>	Defines a possible line-break

# HTML5 – Form element



Tag	Description
<datalist>	Specifies a list of pre-defined options for input controls
<output>	Defines the result of a calculation

# HTML5 – Input types



Tag	Attributes	Attributes
color	autocomplete	placeholder
date	autofocus	required
datetime	form	step
datetime-local	formaction	
email	formenctype	
month	formmethod	
number	formnovalidate	
range	formtarget	
search	height and width	
tel	list	
time	min and max	
url	multiple	
week	pattern (regexp)	

# HTML 5 - Graphics



Tag	Description
<code>&lt;canvas&gt;</code>	Draw graphics, on the fly, via scripting (usually JavaScript)
<code>&lt;svg&gt;</code>	Draw scalable vector graphics



# HTML5 – Media Elements



Tag	Description
<audio>	Defines sound content
<embed>	Defines a container for an external (non-HTML) application
<source>	Defines multiple media resources for media elements (<video> and <audio>)
<track>	Defines text tracks for media elements (<video> and <audio>)
<video>	Defines video or movie

Questions?



# Brugbare elementer



oxygenacademy

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oxygen

oxygenintranet  
oxygen



Dobbelklik for at ændre farve eller  
indsætte baggrundsbillede

