



19.01.24 07:56

CSCI 165

Introduction to the Internet and the World Wide Web

Lecture 2: HTML



Jetic Gū
2024 Spring Semester (S1)

Overview

- Focus: Course Introduction
- Architecture: Computer Network, WWW
- Core Ideas:
 1. Front-End
 2. HTML

A Webpage Is Two Parts

- Front-End
 - The GUI: webpage design, present information
 - Content: **HTML**, Style/Format: **CSS**, Dynamic Behaviour: **Javascript**
- Back-End
 - Database management, load-balancing, etc.

Front-End

- **HTML** (Hypertext Markup Language)
 - used to **describe contents** of pages
 - **markup** provides basic formatting options for documents
 - pages are linked using **hyperlinks**
- **CSS**
 - Make the HTML page **look pretty**, by specifying fonts, location of blocks, styles of blocks, etc. (style/appearance)
- **Javascript**
 - **Control behaviour** of the webpage using scripts (programming language)
 - Interact with back-end

General Structures

- A Markup language is a way of writing a document, where plaintext is used to indicate different parts of the text
- In HTML, tags are used to indicate different building blocks of a webpage
 - e.g.: `<html></html>`, `<p></p>`
 - Some blocks have stuff inside, they need to have a beginning and end tag

General Structures

- First line: tells the browser this is an HTML document
- Main part: `<html></html>` tag
two primary components
 1. `<head></head>` tag
 2. `<body></body>` tag

```
<!DOCTYPE html>
<html>

  <head>
    <title>My First Page
  </title>
</head>

  <body>
    <p>This is a paragraph</p>
  </body>

</html>
```

head

- `<head></head>` tag
 - Must appear before `body`
 - Provides information about the page
 - Processed **BEFORE** webpage starts to get rendered by the browser

```
<!DOCTYPE html>  
<html>
```

```
<head>  
  <title>My First Page  
</title>  
</head>
```

```
<body>  
  <p>This is a paragraph</p>  
</body>
```

```
</html>
```

head

- `title`: gives the main title of the webpage
- Will show up in your browser



```
<!DOCTYPE html>  
<html>
```

```
<head>
```

```
<title>My First Page  
</title>
```

```
</head>
```

```
<body>
```

```
<p>This is a paragraph</p>
```

```
</body>
```

```
</html>
```


head

- `<head></head>` tag
- Must appear before `body`
- Provides information about the page
- Processed **BEFORE** webpage starts to get rendered by the browser
- Scripts and stylesheets are declared here as well!

```
<!DOCTYPE html>  
<html>
```

```
<head>  
  <title>My First Page  
</title>  
</head>
```

```
<body>  
  <p>This is a paragraph</p>  
</body>
```

```
</html>
```

body

- `<body></body>` tag
- Must appear after head
- The main content of the webpage
- Gets rendered line by line

```
<!DOCTYPE html>  
<html>
```

```
  <head>  
    <title>My First Page  
  </title>  
</head>
```

```
<body>  
  <p>This is a paragraph</p>  
</body>
```

```
</html>
```

body

- Elements within body
- Elements must have opening and closing tag
- `<p>`: paragraph
- `<h#>`: heading, from 1 to 6
e.g. h1, h2, ..., h6

```
<!DOCTYPE html>
<html>

  <head>
    <title>My First Page
  </title>
</head>

  <body>
    <p>This is a paragraph</p>
  </body>

</html>
```

body

- Some tags are self-closing
 - `
`: line break
 - `<hr />`: horizontal line
- Changing the style of text within an element
 - ``: bold
 - `<i>`: italic
 - `<u>`: underline

```
<!DOCTYPE html>  
<html>
```

```
<head>  
  <title>My First Page  
</title>  
</head>
```

```
<body>  
  <p>This is a paragraph</p>
```

```
<hr />
```

```
<p>This <b>word</b> is bold</p>  
</body>
```

```
</html>
```

How do I edit the HTML file?

- Editors: any text editor that can work with plaintext (not MS Word)
 - TextEdit, Sublime, Notepad, Notepad++, etc.
- Important
 - Make sure your file has the correct suffix (.html). Windows likes to keep this hidden by default. You must use the correct suffix to receive your grade.
 - Trick: check the address in your browser, it should show you the full path to the file