



Create Web Pages with HTML & CSS

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Contents

- Part 1:
 - Introduction to HTML and CSS
- Part 2:
 - Step by Step Example
- Deploy to Web Server
 - FTP



HTML & CSS

Introduction

Web Site Example

Presentation (Figures and Text) of your Software Product



Weather System

The Weather System ...



Documents

-  [Software Development Plan](#)
-  [Software Requirements & Design](#)

Documents available for download (Hyperlinks)



WYSIWYG HTML Editors

- **Adobe Dreamweaver** (Monthly Payment)
- Kompozer (Free)
- Bluegriffon (Free)
- Sparkle (\$80), etc...

WYSIWYG – What You See Is What You Get
You don't need to know HTML syntax - It's just like using MS Word.

Other HTML Editors (not WYSIWYG)

- **Visual Studio** (ASP.NET)
- **Visual Studio Code**
- CoffeeCup (\$69, Free Trial)
- Coda (\$99)
- NotePad (-> any textbased editor)

Only possible to change the HTML source code and then select "Preview" in order to see how it looks like in a Web Browser.
You need to know HTML syntax

Create a Web Site with Visual Studio

- Visual Studio is not well suited for creating Static HTML Web Pages.
- Visual Studio has poor WYSIWYG Editing possibilities
- Visual Studio is more optimized for creating Dynamic Web Pages and creating ASP.NET Web Pages in special
- For HTML pages Visual Studio Code may be a better choice.

Simple Web Page in Visual Studio Code

The image displays the Visual Studio Code editor with a file named 'webpage.html' open. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5
6     <h1>Heading 1</h1>
7     <h2>Heading 2</h2>
8     <h3>Heading 3</h3>
9
10    <p>My first paragraph.</p>
11
12    <p>
13
14        <a href="https://www.w3schools.com">This is a link</a>
15
16    </p>
17
18
19    <p>
20
21        
22
23    </p>
24
25
26 </body>
27
28 </html>
```

The rendered output in the browser shows the following content:

Heading 1
Heading 2
Heading 3
My first paragraph.
[This is a link](https://www.w3schools.com)

The browser window also displays a 'Weather System' page with a weather forecast for 'London' and a 'Documents' section containing 'Software Developer Plan' and 'Software Equipments & Design'.

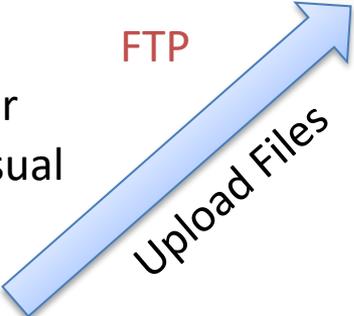
Ln 23, Col 9 Spaces: 4 UTF-8 LF HTML

Web Server



Apache Web Server or IIS Web Server

FTP



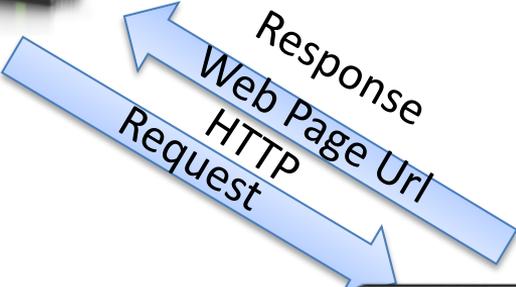
Upload Files

E.g. WinSCP, FileZilla or use FTP features in Visual Studio



Visual Studio
Visual Studio Code

Your Development PC



Request
HTTP

Response
Web Page Url

Clients



PC with Web Browser

Create a Web Site with Visual Studio

The image shows the Visual Studio Start Page with the 'New' menu open. The 'Web Site...' option is highlighted with a red box. Below it, the 'New Web Site' dialog box is open, showing a list of templates. The 'ASP.NET Empty Web Site' template is highlighted with a red box. The 'Web location' is set to 'File System' and the path is 'C:\Work\Development\TFS\Development\Code\Examples\WebSite1'.

Start Page - Microsoft Visual Studio

FILE EDIT VIEW DEBUG TEAM TOOLS TEST ARCHITECTURE ANALYZE WINDOW HELP

New Project... Ctrl+Shift+N

Web Site... Shift+Alt+N

Recent

Installed

Templates

- Visual Basic
- Visual C#
- Samples

Online

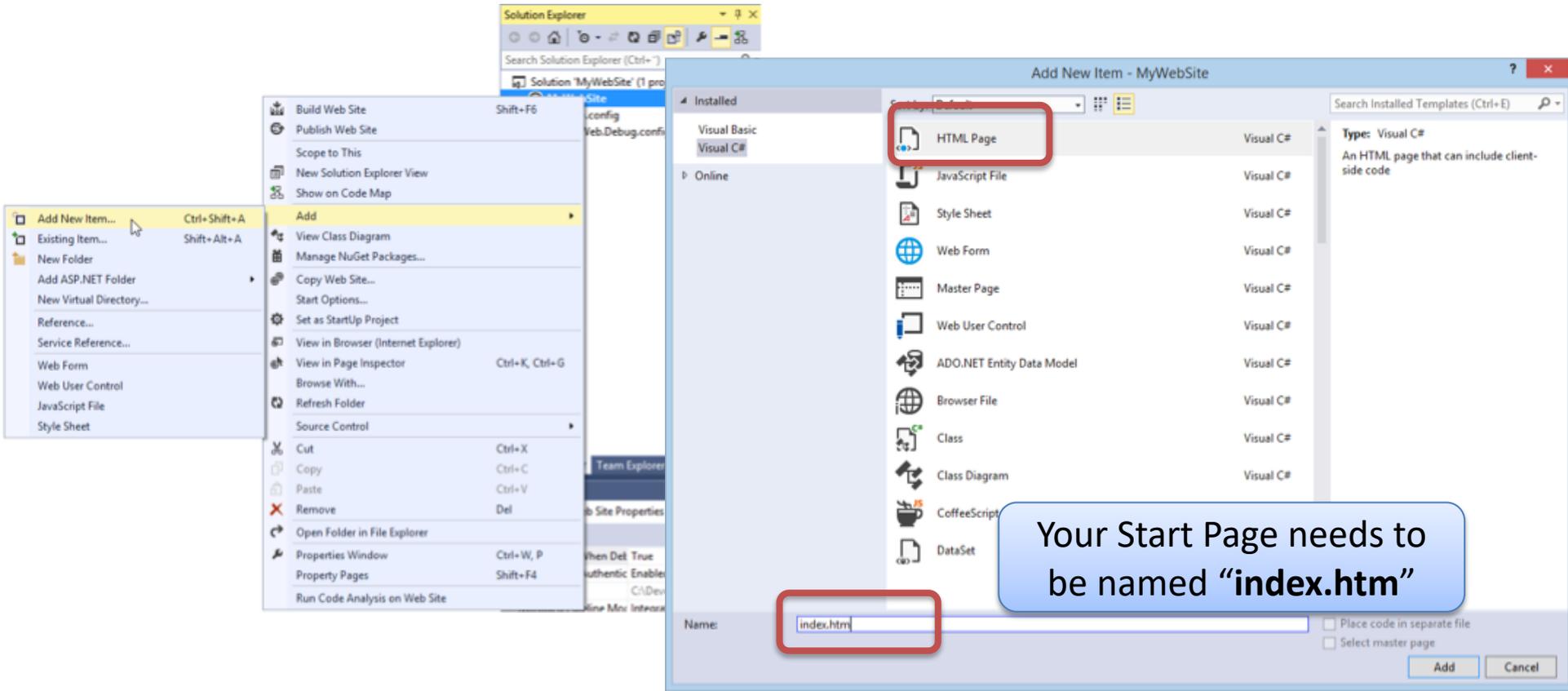
Template Name	Language
ASP.NET Empty Web Site	Visual C#
ASP.NET Web Forms Site	Visual C#
ASP.NET Web Site (Razor v2)	Visual C#
ASP.NET Web Site (Razor v3)	Visual C#
ASP.NET Dynamic Data Entities Web Site	Visual C#
WCF Service	Visual C#
ASP.NET Reports Web Site	Visual C#

Web location: File System | C:\Work\Development\TFS\Development\Code\Examples\WebSite1 | Browse...

OK Cancel

Note! Make sure the Source Code should be stored in your Team Services Project

Create a Web Site with Visual Studio

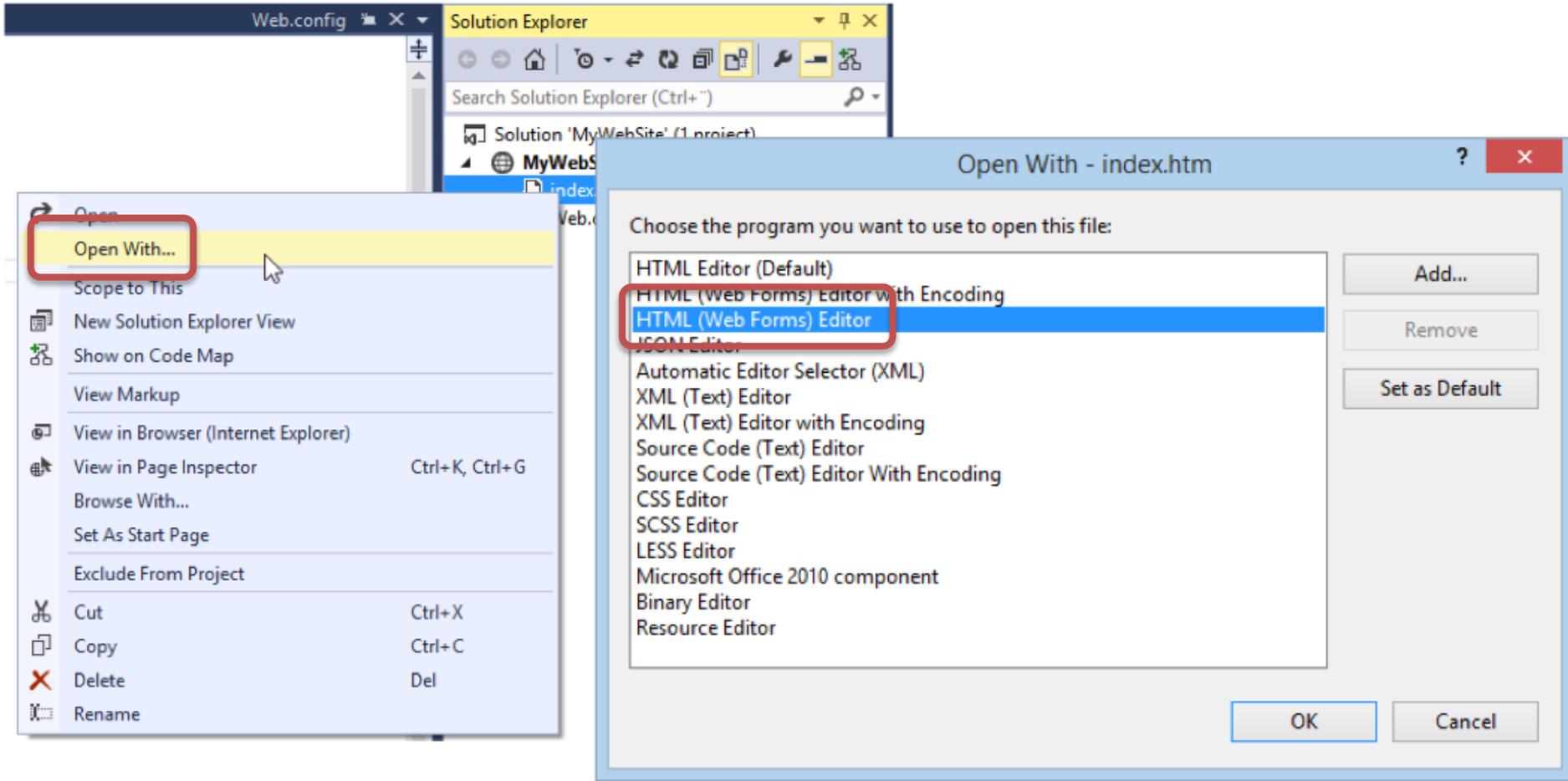


Visual Studio HTML Editor

Note! Due to the brand new HTML editor in Visual Studio, static HTML files no longer has the Design | Split | Source options enabled by default.

- That's because the new HTML editor is the default editor for all HTML files with the exception of ASP.NET Web Forms files (.aspx, .ascx, .master).
- However, it is only the Web Forms editor that has support for the designer and split view.
- So all we have to do is to map our .html or .htm files to use the Web Forms editor instead of the new HTML editor.
- Simply right-click any .html/.htm file in Solution Explorer and select Open With...

HTML Editor in Visual Studio



Toolbox

Search Toolbox

- HTML
 - Pointer
 - Input (Button)
 - Input (Reset)
 - Input (Submit)
 - Input (Text)
 - Input (File)
 - Input (Password)
 - Input (Checkbox)
 - Input (Radio)
 - Input (Hidden)
 - Textarea
 - Table
 - Image
 - Select
 - Horizontal Rule
 - Div
- General

There are no usable controls in this group. Drag an item onto this text to add it to the toolbox.

```
<!DOCTYPE html>  
<html xmlns="http://www.w3.org/1999/xhtml">  
  <head>  
    <title></title>  
  </head>  
  <body>  
  
</body>  
</html>
```

Create your HTML Code here!

Code Editor

100 %

.body

Simple "WYSIWYG" Editor + Preview

Solution Explorer

Search Solution Explorer (Ctrl+)

- Solution 'MyWebSite' (1 project)
 - MyWebSite
 - index.htm
 - Web.config

Solution Explorer Team Explorer

Properties

DOCUMENT

Charset	
Class	
Id	
Style	
Title	

Charset
Character set used to encode the document.

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

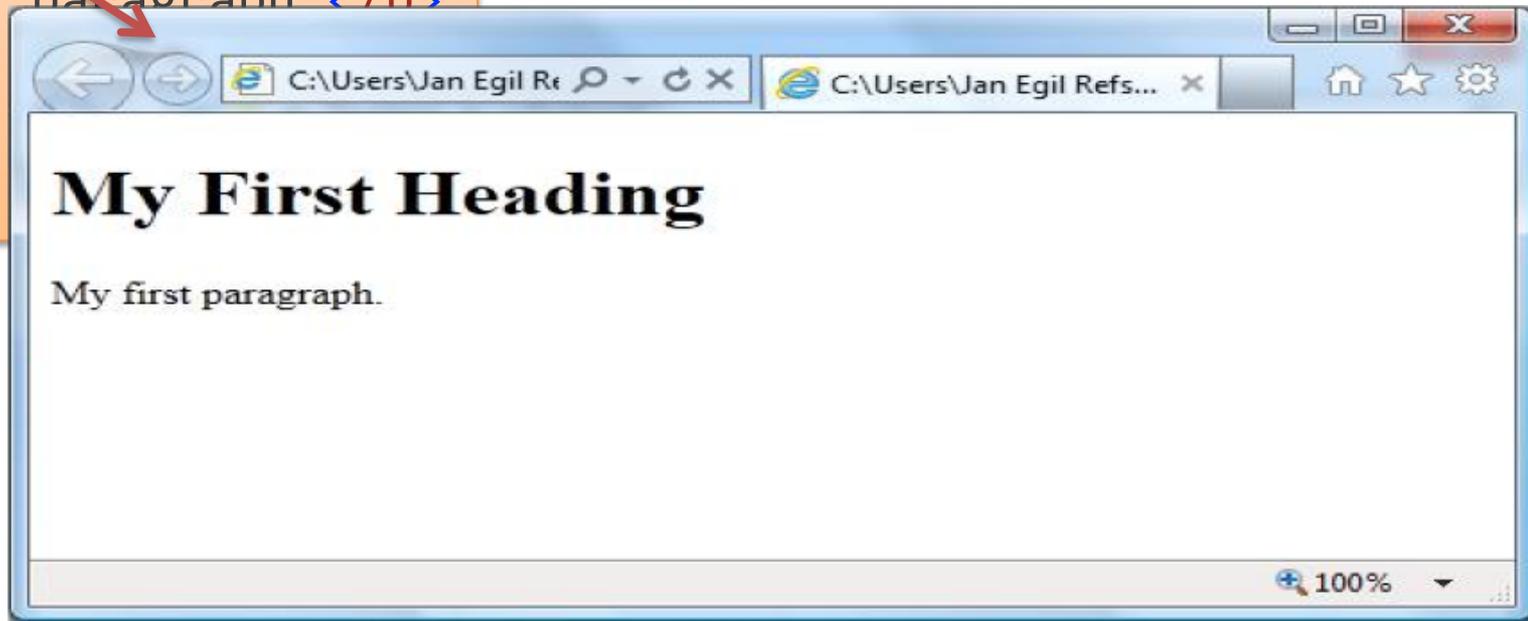
<h1>My First Heading</h1>

<p>My first paragraph </p>

</body>
</html>
```

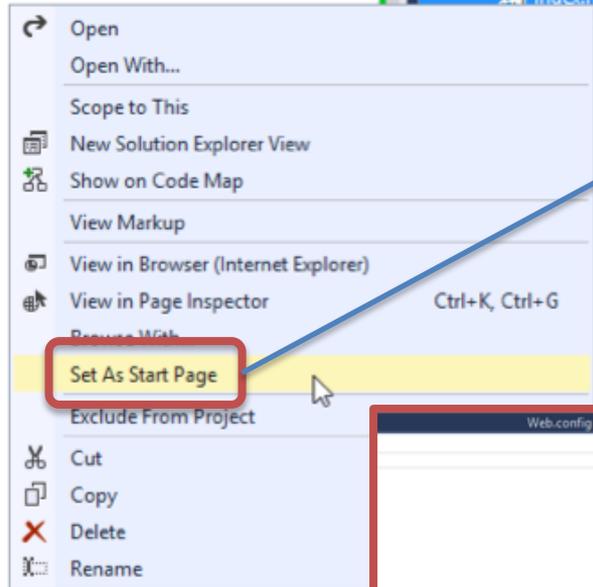
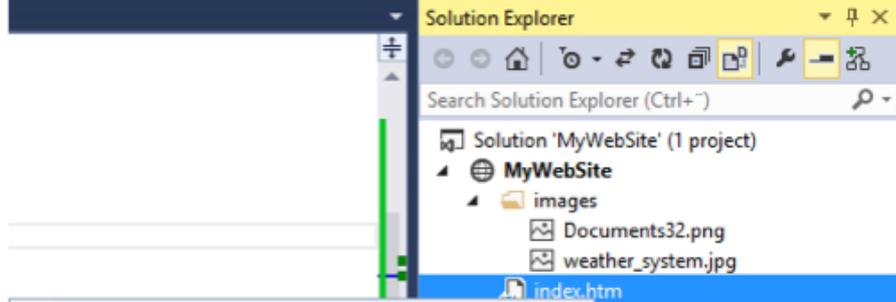
HTML Code

Simple HTML Page Example

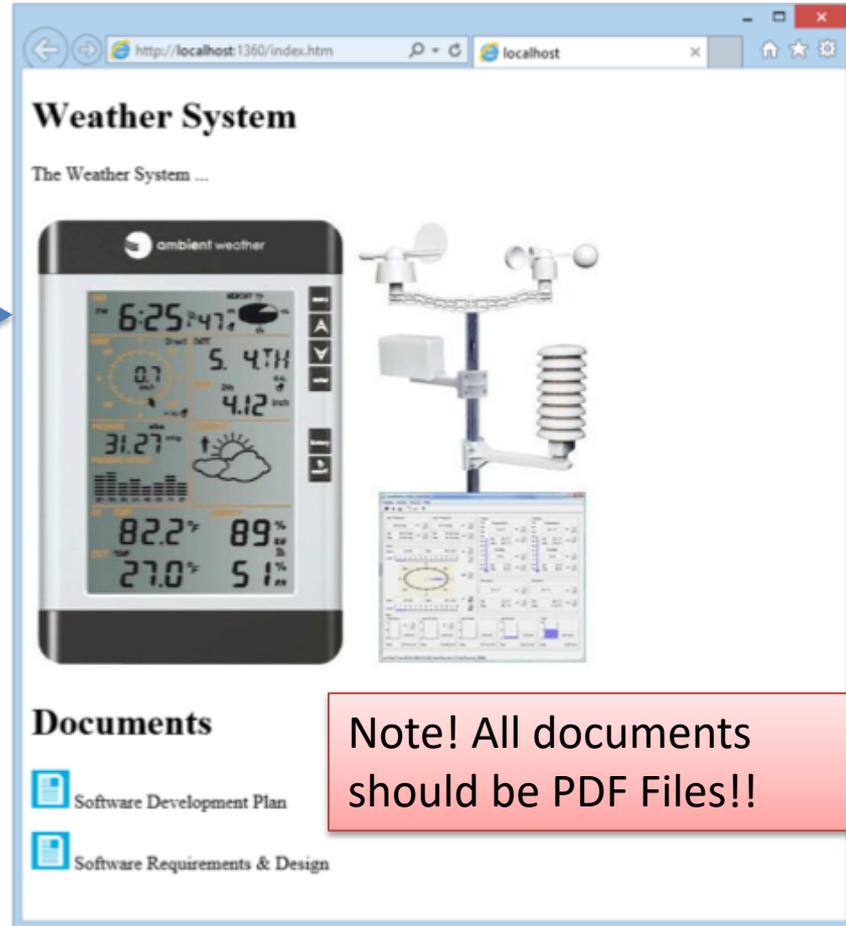


Web Browser:

Test in Browser

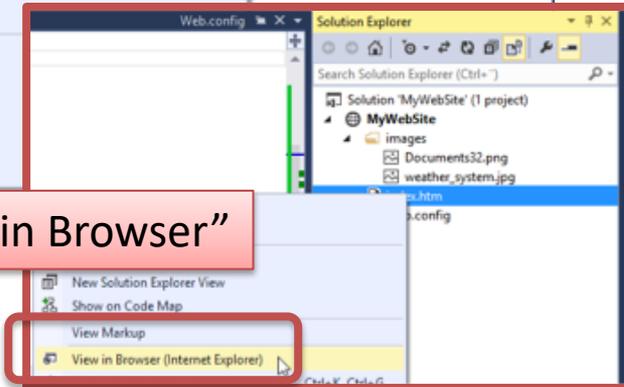


Hit F5 to Run It



Note! All documents should be PDF Files!!

Or Select "View in Browser"



Hyper- links:

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

<h1>This is a heading</h1>

<a href="http://www.google.com">This is a link to Google</a>

</body>
</html>
```

Images:

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

<h1>This is a heading</h1>



</body>
</html>
```

HTML Tags Overview

Hyperlink:

```
<a href="http://www.google.com">This is a link to Google</a>
```

Bold Text:

```
<b>This is my Text</b>
```

Paragraph:

```
<p>My first paragraph.</p>
```

Headers:

```
<h1>This is my Header</h1>
```

```
<h2>This is my Header</h2>
```

```
<h3>This is my Header</h3>
```

Line Break:

```
This is my Text
```

```
<br>
```

```
This is also my Text
```

Title:

```
<title>This is my Title</title>
```

Comments:

```
<!-- Write your comments here -->
```

Image:

```

```

HTML Tags - Table

```
<table width="200" border="1">
  <tr>
    <td>a</td>
    <td>b</td>
    <td>c</td>
    <td>d</td>
  </tr>
  <tr>
    <td>e</td>
    <td>f</td>
    <td>g</td>
    <td>h</td>
  </tr>
  <tr>
    <td>i</td>
    <td>j</td>
    <td>k</td>
    <td>l</td>
  </tr>
</table>
```

a	b	c	d
e	f	g	h
i	j	k	l

CSS (Cascading Style Sheet)

CSS is a stylesheet language that describes the presentation of an HTML page.

stylesheet.css:

```
body {  
    background-color: #d0e4fe;  
}  
  
h1 {  
    color: orange;  
    text-align: center;  
}  
  
p {  
    font-family: "Times New Roman";  
    font-size: 20px;  
}
```

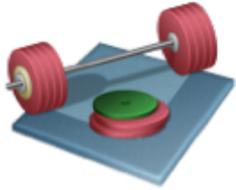
myfile.htm:

```
...  
<head  
...  
    <link rel="stylesheet" type="text/css" href="stylesheet.css" />  
    ..  
</head>  
...
```

HTML

Good Resource for creating Web Pages with HTML, CSS, JavaScript, SQL, etc.

<http://www.w3schools.com>



HTML & CSS

Step by Step Example

We are going to make a Web Page like this:

Weather System

The Weather System shows data from the weather station at HSN, Porsgrunn.

Below we see the Weather System App:



System Overview

Below we see an overview of the system:



Documents

Below you will find the documents for the system:

[Software Development Plan](#)
[Software Requirements and Design](#)

Create a proper Folder structure, e.g.:

You should always think
structure before you start coding

```
My Web Site
  /css
  ...
  /documents
  ...
  /html
  ...
  /images
  ...
  /js
  ...
  index.html
```

Start with an empty HTML Page

```
index.html  x
1  <!DOCTYPE html>
2
3  <html>
4
5      <title></title>
6
7      <body>
8
9
10     </body>
11
12  </html>
```

Create Title, Header and Text

Weather System

The Weather System shows data from the weather station at HSN, Porsgrunn.

```
index.html x
1  <!DOCTYPE html>
2
3  <html>
4
5  <title>Weather System</title>
6
7  <body>
8
9
10 <h1>Weather System</h1>
11
12 <p>The Weather System shows data from the weather station at HSN, Porsgrunn.</p>
13
14
15 </body>
16
17 </html>
```

Create Images

```

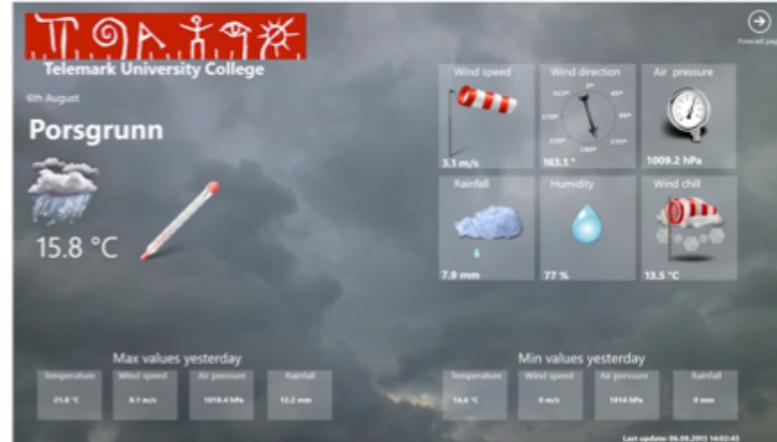
1  <!DOCTYPE html>
2
3  <html>
4
5  <title>Weather System</title>
6
7  <body>
8
9  <h1>Weather System</h1>
10
11  <p>The Weather System shows data from the weather station at HSN, Porsgrunn.</p>
12
13
14  <p> Below we see the Weather System App:</p>
15
16  
17
18
19  <h2>System Overview</h2>
20
21  <p> Below we see an overview of the system:</p>
22
23  
24
25
26  </body>
27
28  </html>

```

Weather System

The Weather System shows data from the weather station at HSN, Porsgrunn.

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Create Hyperlinks

```
index.html x
1 <body>
2
3 <h1>Weather System</h1>
4
5 <p>The Weather System shows data from the weather station at HSN, Porsgrunn.</p>
6
7 <p> Below we see the Weather System App:</p>
8 
9
10 <h2>System Overview</h2>
11
12 <p> Below we see an overview of the system:</p>
13 
14
15 <h2>Documents</h2>
16
17 <p> Below you will find the documents for the system:</p>
18 <a href="documents/software_development_plan.pdf" target=_blank">Software Development Plan</a>
19
20 <br>
21 <a href="documents/software_requirements_design.pdf" target=_blank">Software Requirements and Design</a>
22
23 </body>
24
25 </html>
```

Hyperlinks can be other web pages, documents, etc.

Weather System

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Learn more HTML

- <https://www.w3schools.com/html>

CSS

- CSS is a language that describes the style of an HTML document.
- CSS describes how HTML elements should be displayed.
- Examples: Font Size, Colors, Alignment, etc.

```
body {  
    background-color: lightblue;  
}  
  
h1 {  
    color: white;  
    text-align: center;  
}  
  
p {  
    font-family: verdana;  
    font-size: 20px;  
}
```

Inline CSS

- The CSS in part of the HTML file

<style>

..

</style>

```
<> inline_css.html x
1  <!DOCTYPE html>
2  <html>
3  <head>
4  <style>
5  p {
6      color: red;
7      text-align: center;
8  }
9  </style>
10 </head>
11 <body>
12
13 <p>Hello World!</p>
14 <p>These paragraphs are styled with CSS.</p>
15
16 </body>
17 </html>
```

External CSS File

Here you see a simple example:

```
index.html  stylesheet.css ×
1  body
2  {
3      color: ■ #153744;
4      background-color: □ #d0e4fe
5  }
6
7  h1
8  {
9      color: ■ red;
10     text-align: center
11 }
12
13 h2
14 {
15     color: ■ blue;
16     text-align: center
17 }
18
19
```

```

index.html | stylesheet.css x
1  body
2  {
3      color: #153744;
4      background-color: #d0e4fe
5  }
6
7  h1
8  {
9      color: red;
10     text-align: center
11 }
12
13 h2
14 {
15     color: blue;
16     text-align: center
17 }
18
19

```

Create CSS

Weather System

The Weather System shows data from the weather station at HSN, Porsgrunn.

Below we see the Weather System App:



```

3  <html>
4
5      <head>
6
7          <title>Weather System</title>
8          <link rel="stylesheet" type="text/css" href="css/stylesheet.css"/>
9
10     </head>
11
12     <body>
13
14         <h1>Weather System</h1>
15
16
17

```

System Overview

See an overview of the system:



Documents

will find the documents for the system:

- Development Plan
- Requirements and Design

```
index.html x stylesheet.css
1 <!DOCTYPE html>
2
3 <html>
4
5 <head>
6
7 <title>Weather System</title>
8
9 <link rel="stylesheet" type="text/css" href="css/stylesheet.css"/>
10
11 </head>
12
13 <body>
14
15 <h1>Weather System</h1>
16
17 <p>The Weather System shows data from the weather station at HSN, Porsgrunn.</p>
18
19
20 <p>Below we see the Weather System App:</p>
21
22 
23
24
25 <h2>System Overview</h2>
26
27 <p>Below we see an overview of the system:</p>
28
29 
30
31 <h2>Documents</h2>
32
33 <p>Below you will find the documents for the system:</p>
34
35 <a href="documents/software_development_plan.pdf" target=_blank">Software Develop
36 </br>
37
38 <a href="documents/software_requirements_design.pdf" target=_blank">Software Requ
39
40 </body>
41
42 </html>
```

index.html

stylesheet.css x

```
1 body
2 {
3   color: #153744;
4   background-color: #d0e4fe;
5 }
6
7 h1
8 {
9   color: red;
10  text-align: center;
11 }
12
13 h2
14 {
15   color: blue;
16   text-align: center;
17 }
18
19
```

Explore!

Find Colors, Font Sizes,
etc. that fits your system

Weather System

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Learn more CSS

- <https://www.w3schools.com/css/>

Bootstrap

Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first web sites.

Bootstrap is completely free to download and use!

<http://www.w3schools.com/bootstrap/>

```

1 <!DOCTYPE html>
2
3 <html>
4
5 <head>
6
7 <title>Weather System</title>
8
9 <meta charset="utf-8">
10 <meta name="viewport" content="width=device-width, initial-scale=1">
11 <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
12 <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.1.1/jquery.min.js"></script>
13 <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
14
15 </head>
16
17 <body>
18
19 <div class="container-fluid">
20
21 <h1>Weather System</h1>
22
23 <p class="text-primary">The Weather System shows data from the weather station at HSN, Porsgrunn.</p>
24
25 <p class="text-success">Below we see the Weather System App:</p>
26
27 
28
29 <h2>System Overview</h2>
30
31 <p class="text-success">Below we see an overview of the system:</p>
32
33 
34
35 <h2>Documents</h2>
36
37 <p class="text-success">Below you will find the documents for the system:</p>

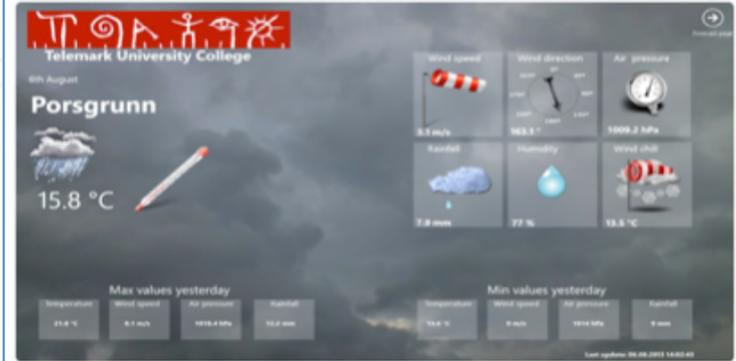
```

Alternative 1

Weather System

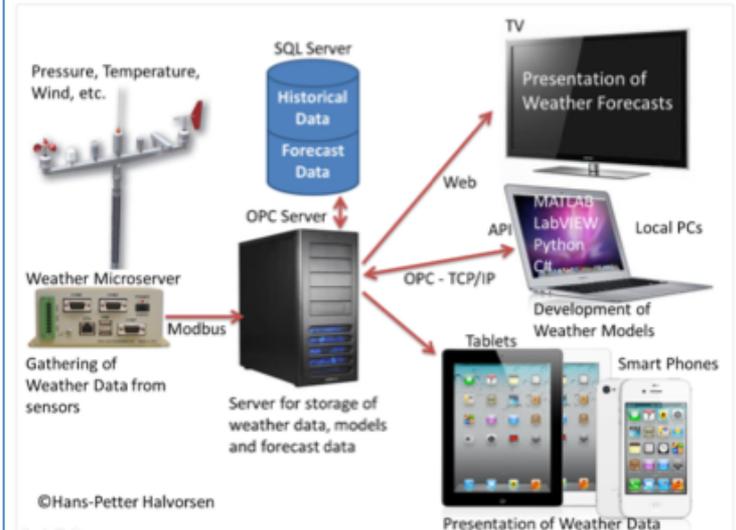
The Weather System shows data from the weather station at HSN, Porsgrunn.

Below we see the Weather System App:



System Overview

Below we see an overview of the system:



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

```
2
3 <html>
```

```
4
5 <head>
```

```
6
7 <title>Weather System</title>
```

```
8
9 <meta charset="utf-8">
```

```
10 <meta name="viewport" content="width=device-width, initial-scale=1">
```

```
11 <link rel="stylesheet" href="css/bootstrap.css">
```

```
12 <script src="js/jquery-1.11.3.min.js"></script>
```

```
13 <script src="js/bootstrap.js"></script>
```

```
14
15 </head>
```

```
16
17 <body>
```

```
18
19 <div class="container-fluid">
```

```
20
21 <h1>Weather System</h1>
```

```
22
23 <p class="text-primary">The Weather System shows data from the weather station
```

```
24
25
26 <p class="text-success"> Below we see the Weather System App:</p>
```

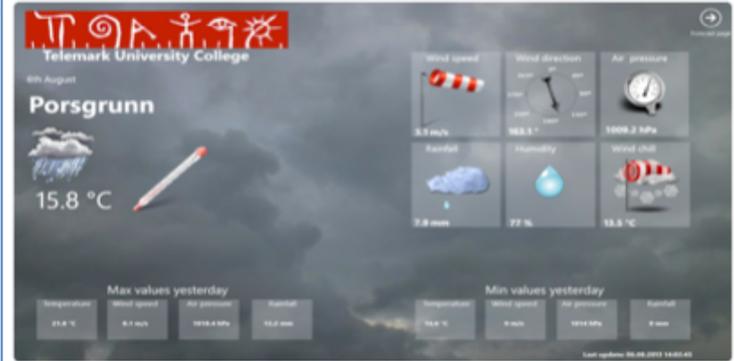
```
27
28 
```

Alternative 2

Weather System

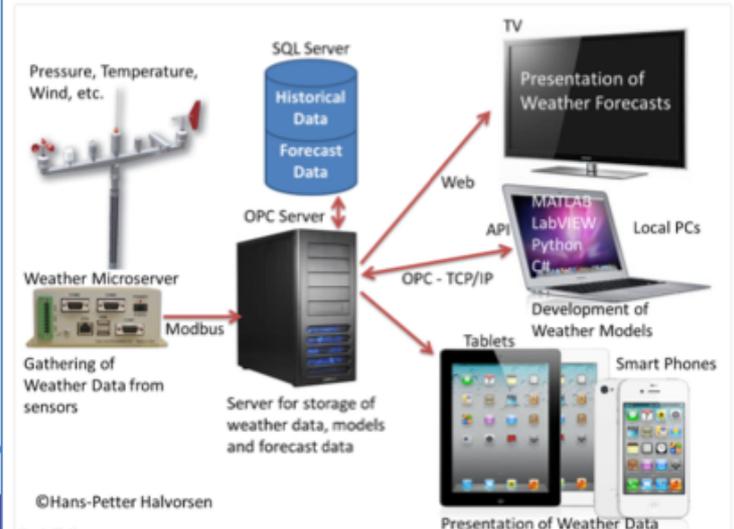
The Weather System shows data from the weather station at HSN, Porsgrunn.

Below we see the Weather System App:



System Overview

Below we see an overview of the system:



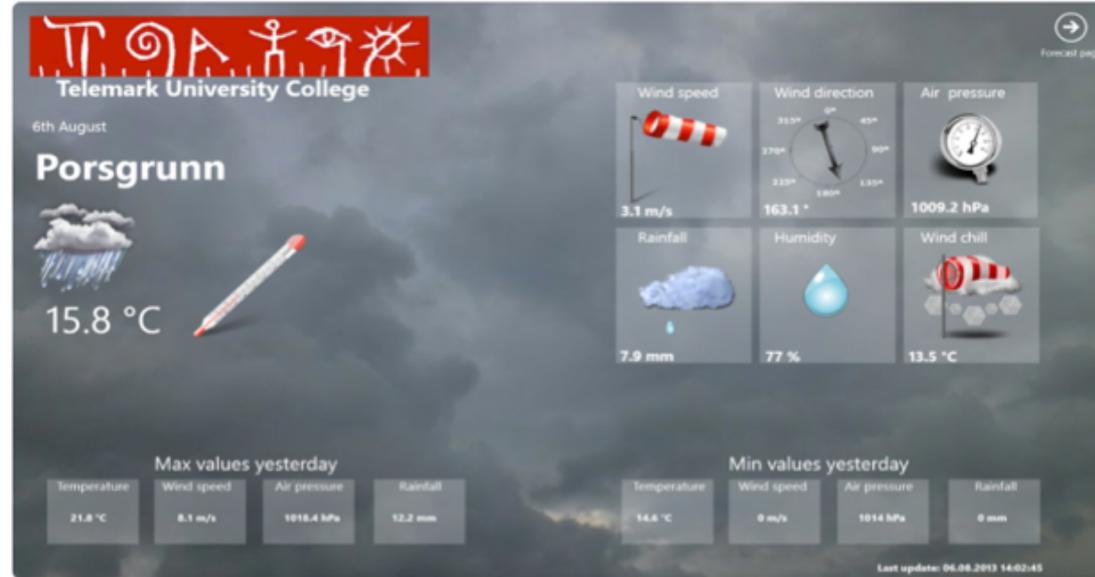
Explore!

With CSS and Bootstrap you have endless possibilities

Weather System

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[Software Requirements and Design](#)



FTP

File Transfer Protocol

Web Server

- You need to deploy your files to the Web Server
- Typically you use a FTP program
 - You need to know the Host Name, and a User Name and a Password

Server-side

Web

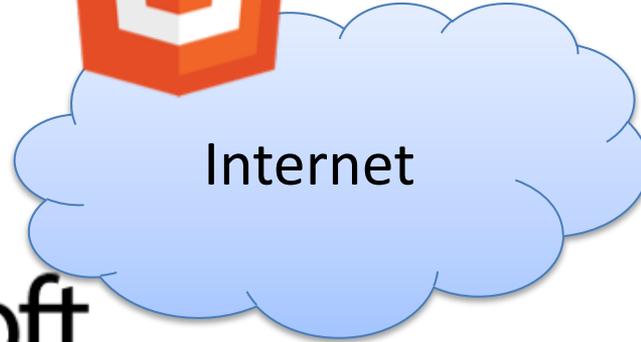
Clients



HTML



CSS



Internet



PCs with Web Browsers



Apache

HTTP SERVER



FTP Software

- WinSCP
 - <https://winscp.net>
- FileZilla
 - <https://filezilla-project.org>

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