

Create Web Pages with HTML & CSS

Hans-Petter Halvorsen

Contents

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

HTML & CSS

Introduction

Hans-Petter Halvorsen

Web Site Example

Presentation (Figures and Text) of
your Software Product



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)

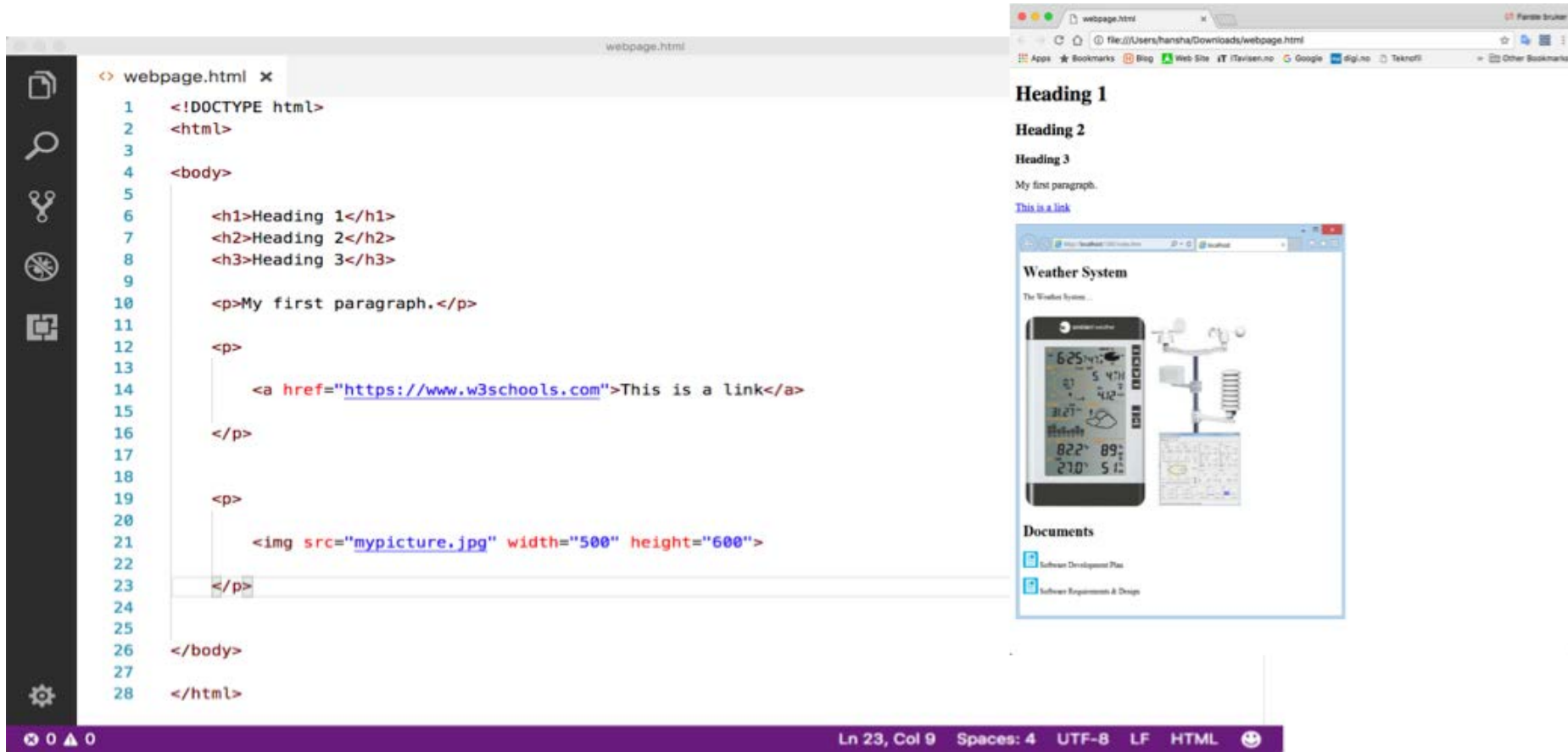
- **Visual Studio** (ASP.NET)
- **Visual Studio Code**
- CoffeeCup (\$69, Free Trial)
- Coda (\$99)
- NotePad (-> any textbased editor)

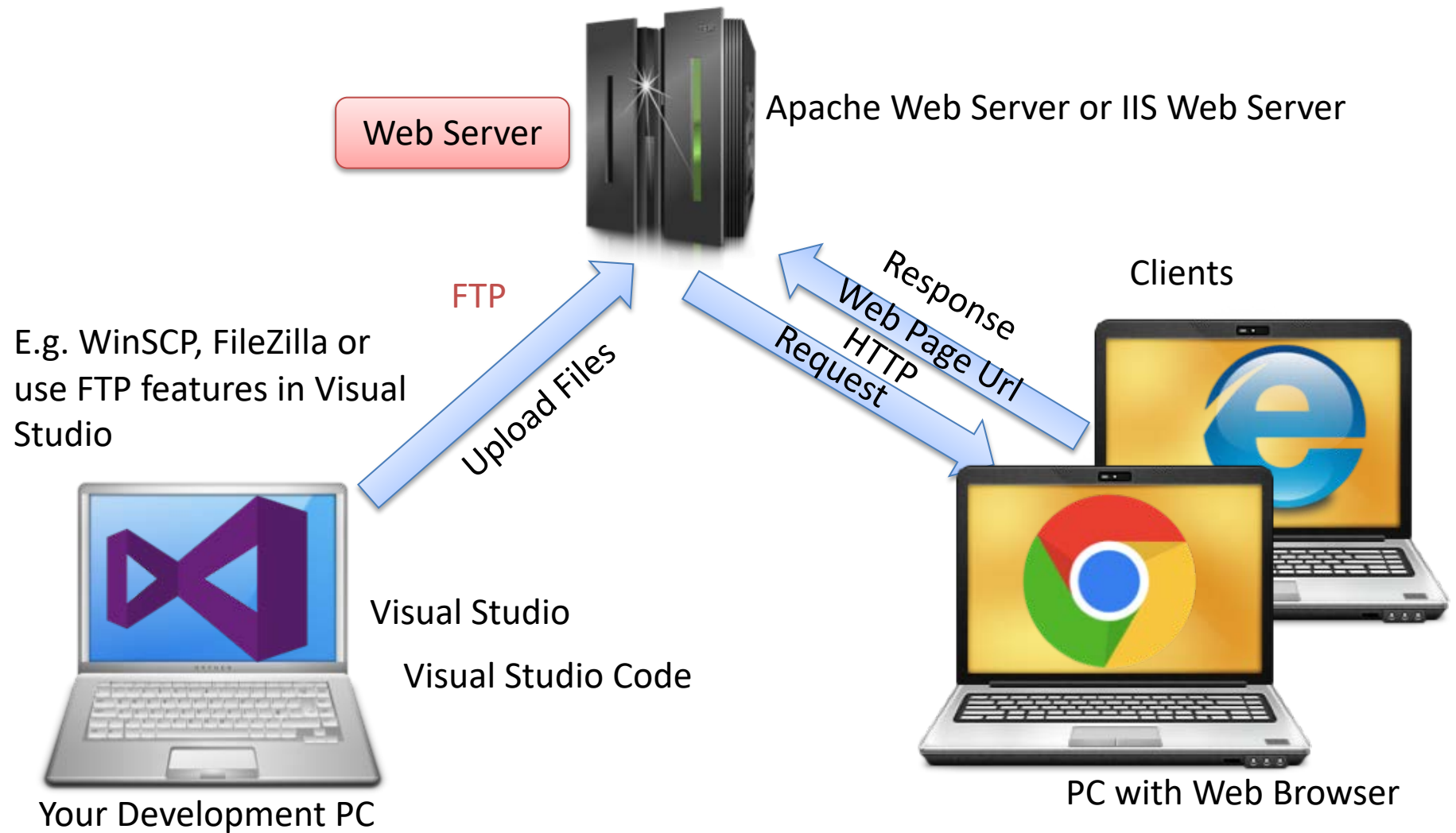
Only possible to change the HTML source code and then select “Preview” in order to see how it looks like in a Web Browser.
You need to know HTML syntax

Create a Web Site with Visual Studio

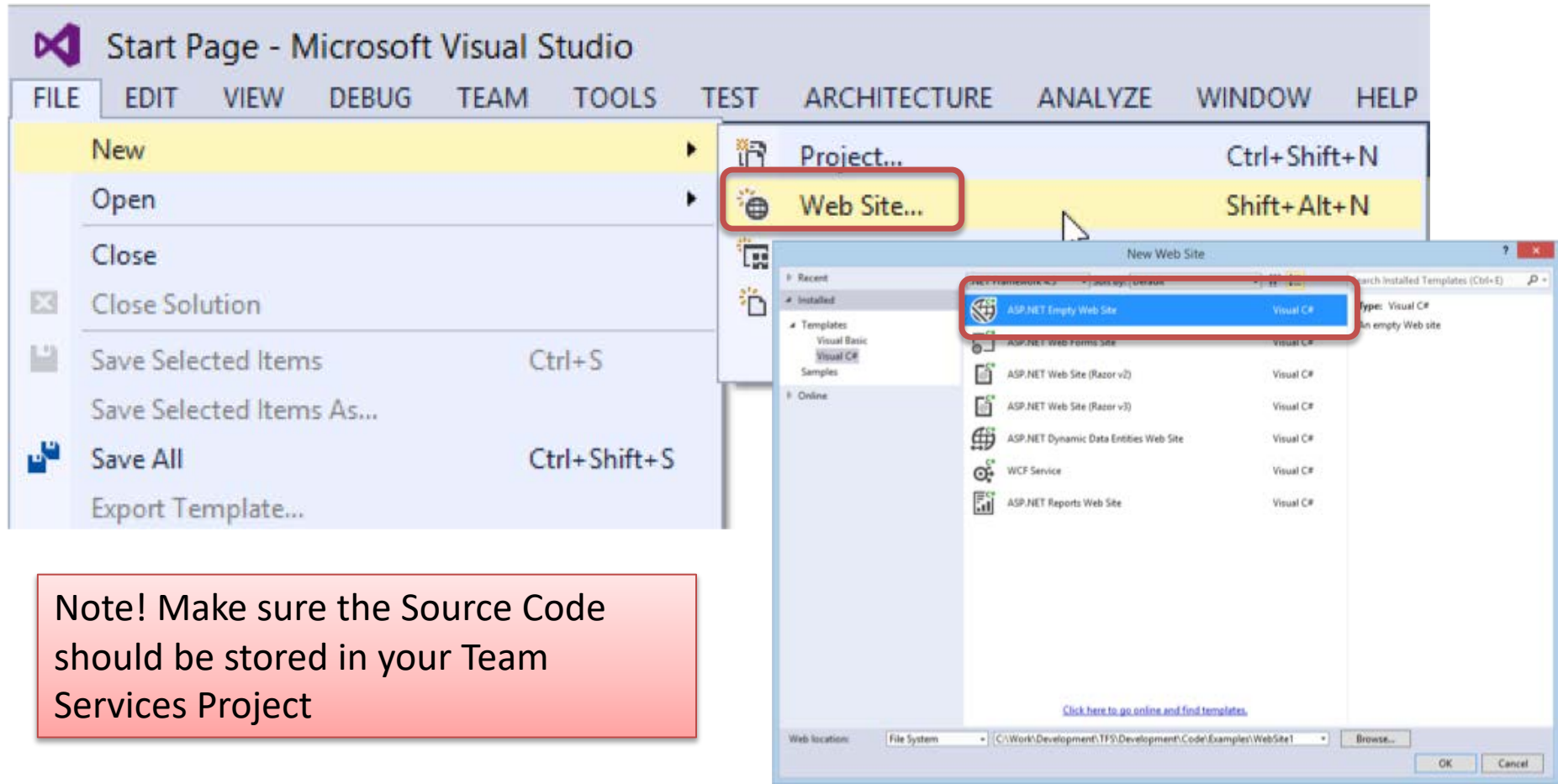
- Visual Studio is not well suited for creating Static HTML Web Pages.
- Visual Studio has poor WYSIWYG Editing possibilities
- Visual Studio is more optimized for creating Dynamic Web Pages and creating ASP.NET Web Pages in special
- For HTML pages Visual Studio Code may be a better choice.

Simple Web Page in Visual Studio Code





Create a Web Site with Visual Studio



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

The screenshot shows the Visual Studio IDE with the 'Add New Item' dialog box open. The 'HTML Page' template is selected in the list. The 'Name' field at the bottom of the dialog contains the text 'index.htm', which is highlighted with a red box. A blue callout box with the text 'Your Start Page needs to be named "index.htm"' points to this field. The 'Add' menu is also visible, showing the 'Add New Item...' option.

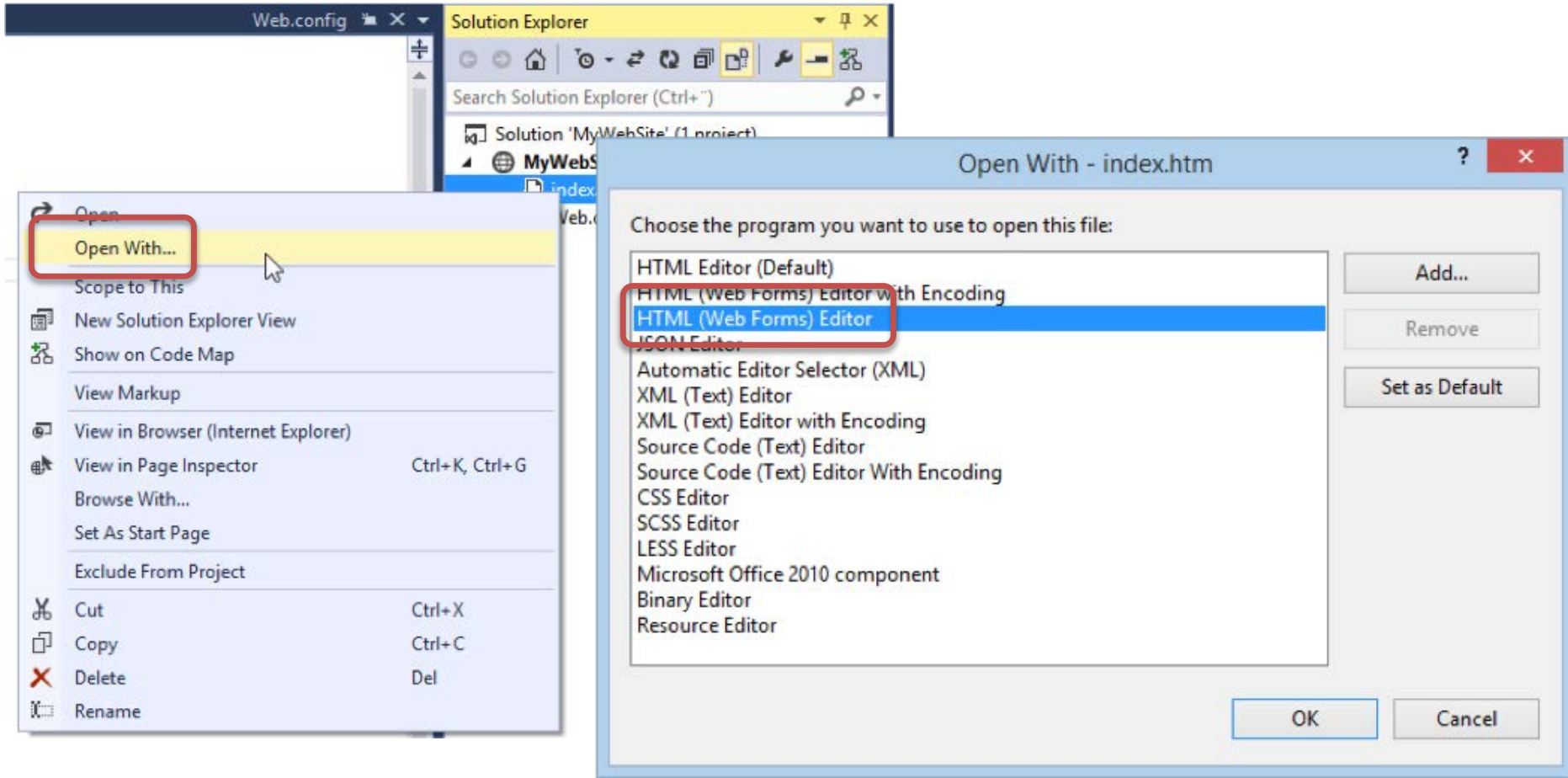
Your Start Page needs to be named **"index.htm"**

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




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

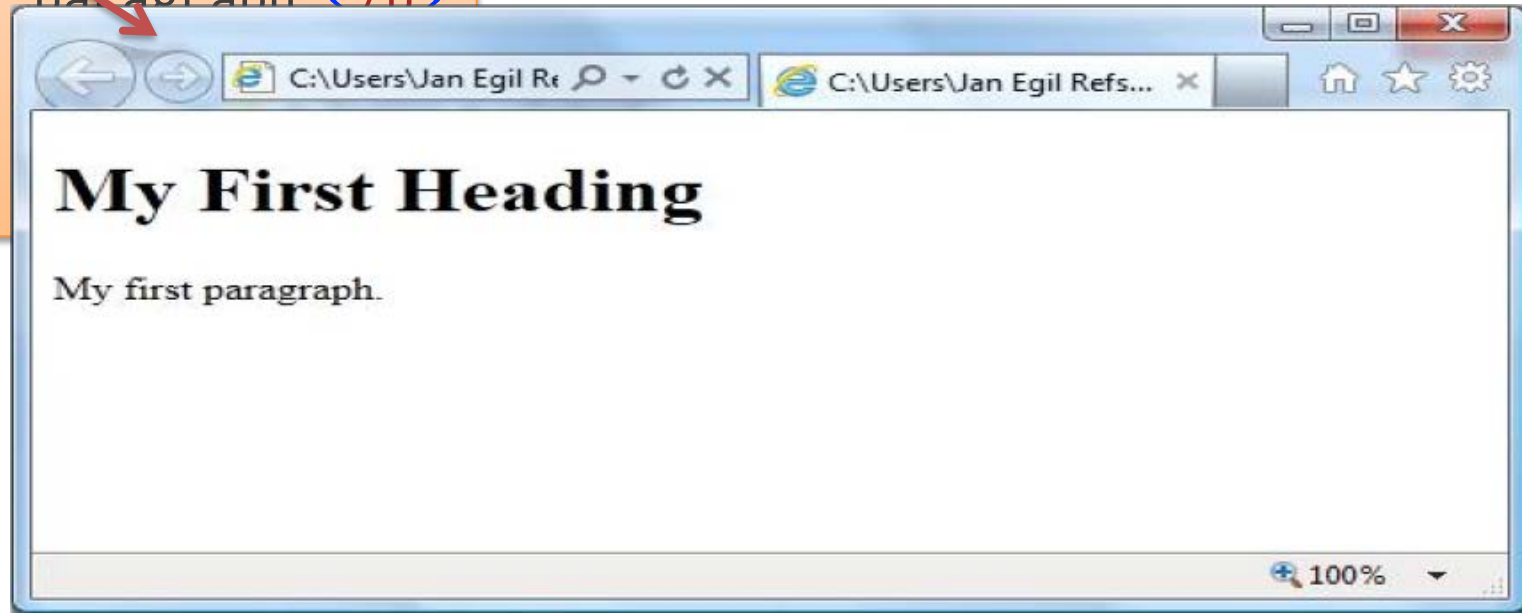
<h1>My First Heading</h1>

<p>My first paragraph </p>

</body>
</html>
```

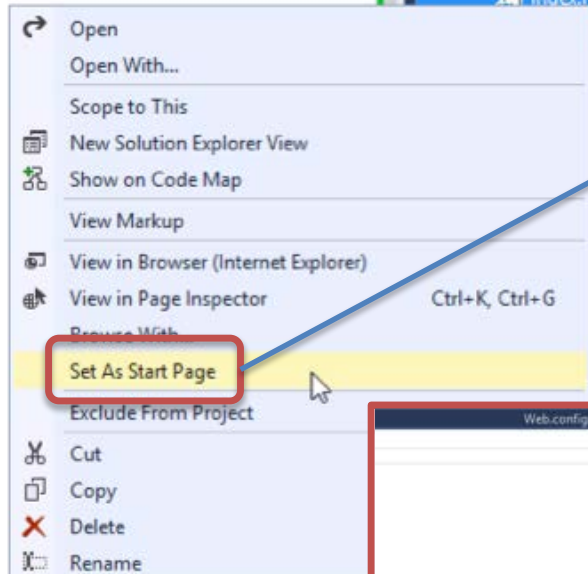
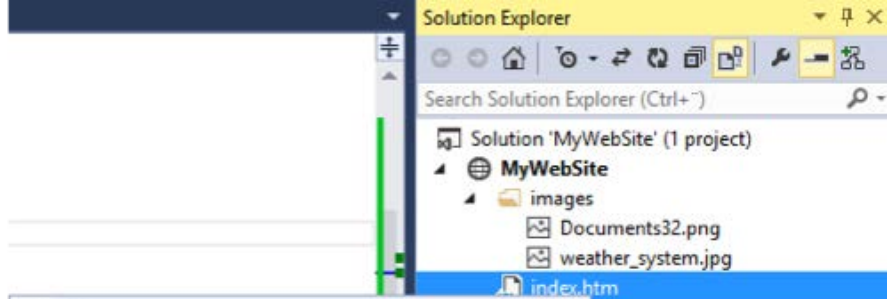
HTML Code

Simple HTML Page Example



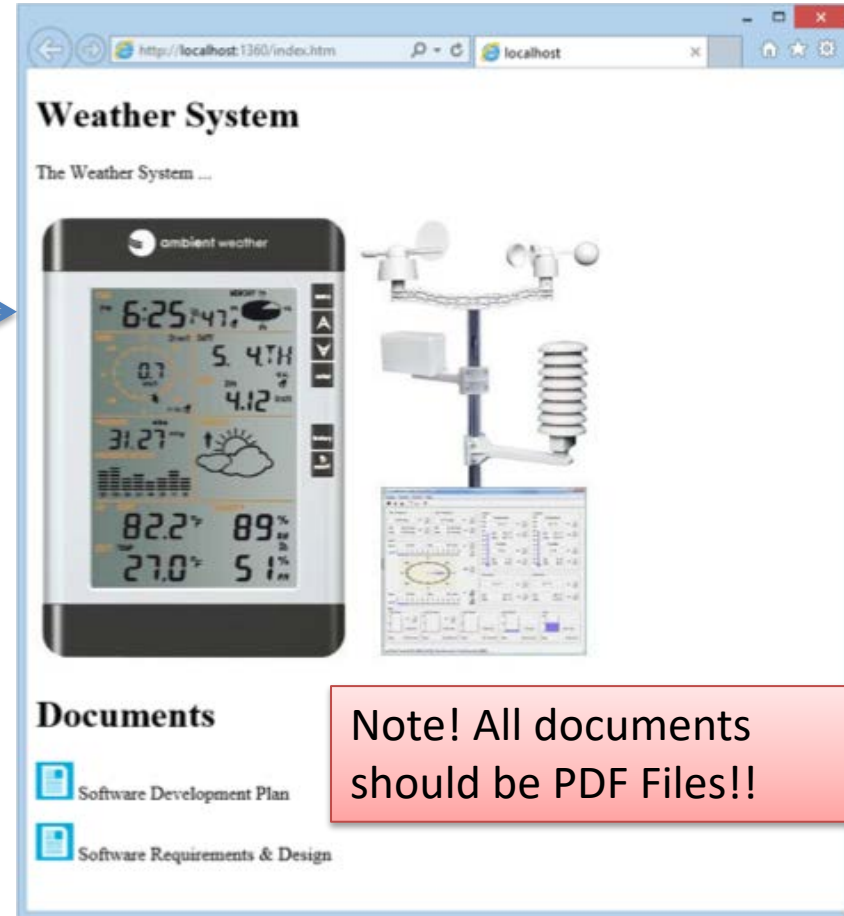
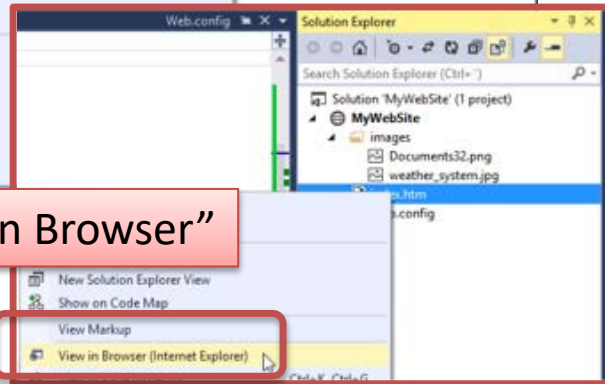
Web Browser:

Test in Browser



Hit F5 to Run It

Or Select "View in Browser"



Note! All documents should be PDF Files!!

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;  
}
```

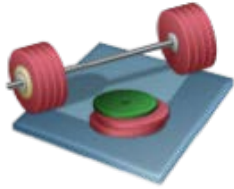
myfile.htm:

```
...  
<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

Hans-Petter Halvorsen

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



A screenshot of a code editor window titled "index.html" with a close button (X). The editor displays the following HTML code:

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

The code is formatted with line numbers on the left. The opening `<html>` tag on line 3 and the opening `<body>` tag on line 7 are highlighted with red rounded rectangular boxes. The closing `</body>` tag on line 10 is also highlighted with a red rounded rectangular box. The closing `</html>` tag on line 12 is not highlighted. The code is written in a dark red font on a light gray background.

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

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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
11
12 <h2>System Overview</h2>
13
14 <p>Below we see an overview of the system:</p>
15
16 
17
18
19 <h2>Documents</h2>
20
21 <p>Below you will find the documents for the system:</p>
22
23 <a href="documents/software_development_plan.pdf" target="_blank">Software Development Plan</a>
24
25 <br>
26
27 <a href="documents/software_requirements_design.pdf" target="_blank">Software Requirements and Design</a>
28
29
30
31 </body>
32
33 </html>
```

Hyperlinks can be other web pages, documents, etc.

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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 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
```

```
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

```
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
```

Weather System

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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

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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
26 <p class="text-success">Below we see the Weather System App:</p>
27
28 
29
30
31 <h2>System Overview</h2>
32
33 <p class="text-success">Below we see an overview of the system:</p>
34
35 
36
37 <h2>Documents</h2>
38
39 <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:



Alternative 2

```

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 <img class="img-rounded" src="images/weather_app.jpg" width="800" height="400"
29

```

Weather System

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Explore!

With CSS and Bootstrap you
have endless possibilities

Weather System

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FTP

File Transfer Protocol

Hans-Petter Halvorsen

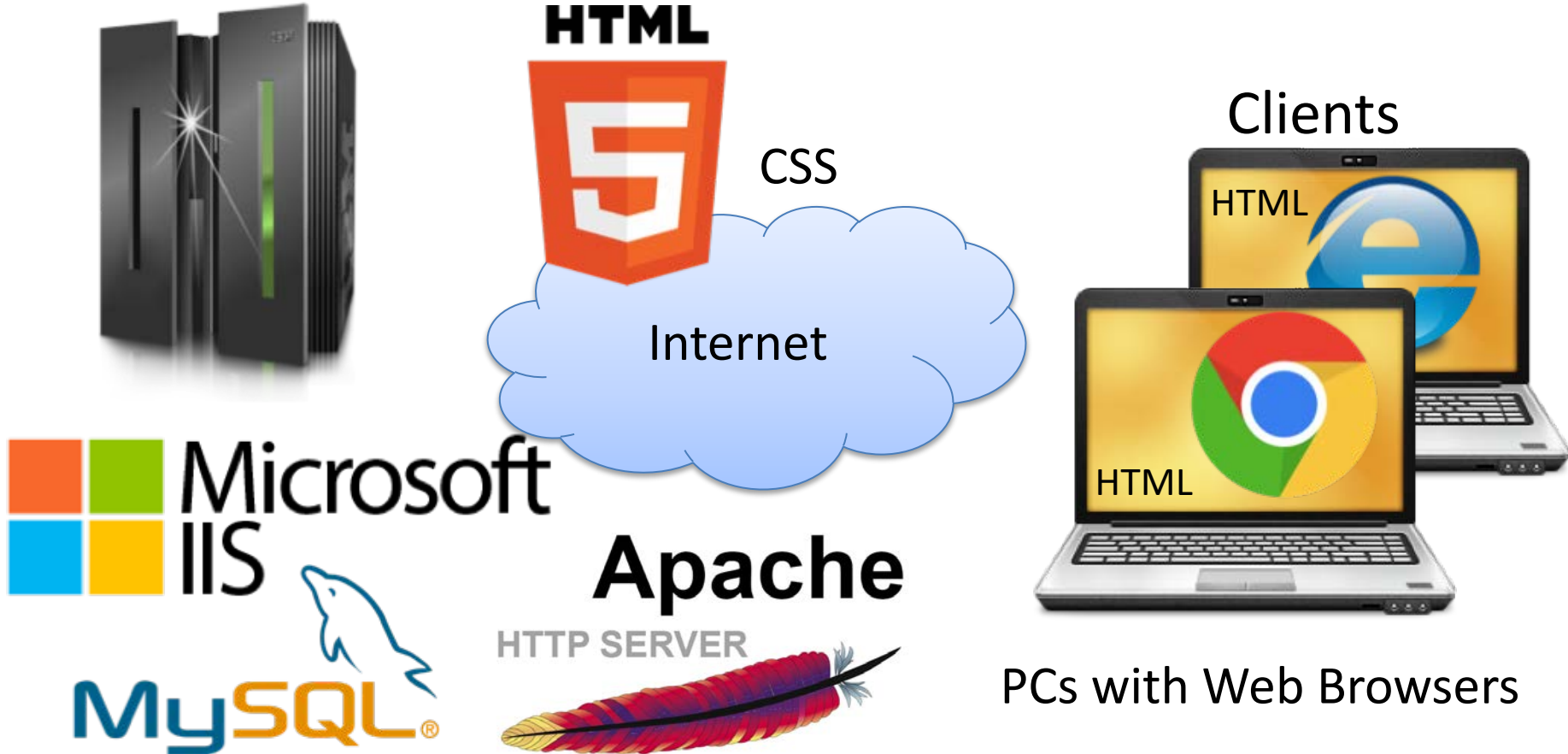
Web Server

- 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



FTP Software

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

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