https://www.halvorsen.blog

Week Assignment

Software Platforms

Hans-Petter Halvorsen

Week Assignment

1. **Create** HTML **Web Site**
2. Sprint Review of previous Iteration (Alpha Release)
3. **Sprint Planning** of Next Iteration (Beta Release)
4. **Implementing** (If you haven't started the coding, now its the time!!!) The next 4 weeks our main focus will be Implementation/Coding of our System

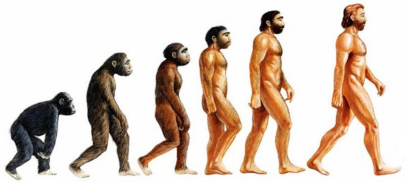
We will use **Azure DevOps** as our Project Tool.
Here we will maintain the Product Backlog and the Sprint Backlog, use the Taskboard, etc.

Software Platforms

Hans-Petter Halvorsen

Table of Contents

The Digital Age



The first Computer
The Turing machine, 1936

Internet, 1968-91

The Microprocessor, 1971

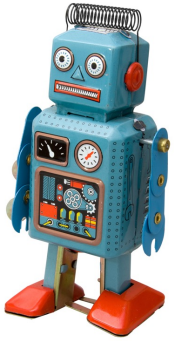
1976: Apple I

PC, 1981 (IBM)

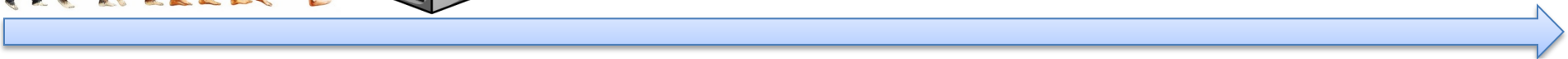
1984: Macintosh

World Wide Web, 1989-93

Smartphone, 2007



Internet of Things (IoT) and Robots (Artificial Intelligence and Machine Learning) take over the World?



Software Platforms

Server Platforms

Database Platforms

Web Server Platforms

Cloud Platforms

Web Platforms

Mobile Platforms

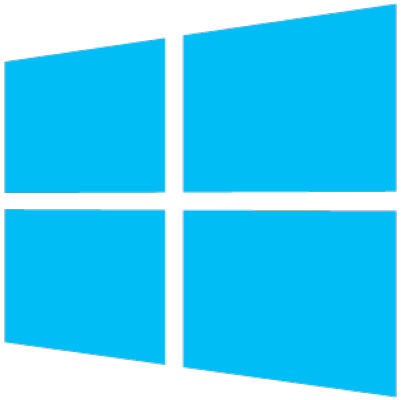
Desktop Platforms

Desktop Platforms?

(Operating Systems)

Desktop Platforms

(Operating Systems)



Windows

macOS

Linux

Chrome OS

Mobile Platforms?

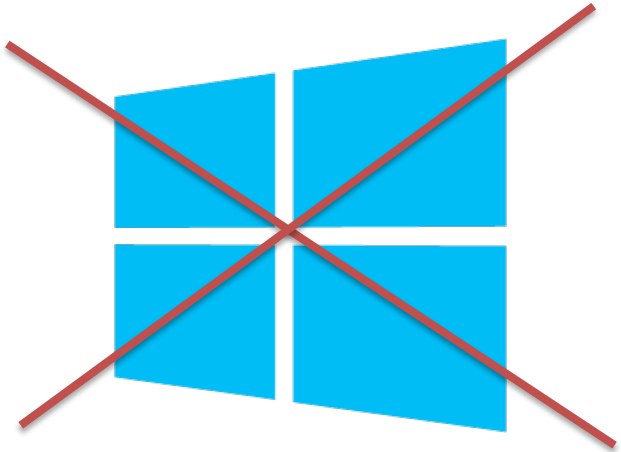
(Smartphone/Tablet Operating Systems)

Mobile Platforms

(Smartphone/Tablet Operating Systems)

Android

iOS



Windows 10 Mobile

Web Browsers?

Web Browsers

Internet Explorer

Microsoft Edge

Chrome

Firefox

Safari

Opera

Web Browser - The 3 big ones

Chrome

Windows + macOS + iOS

Edge

Windows + macOS + iOS

Safari

macOS + iOS

1.4+ billion active iOS devices

Dagens Næringsliv DEBATT

DN

Den store feil fremtidsforskere og datafreakere gjør, er å trekke erfaringene fra bruk av PC på arbeidsplassene inne i hjemmene. En slik projisering holder ikke, skriver *Leif Osvold* i Oslo.

DEBATT

Internett en flopp!

Dataeksperter og såkalte fremtidsforskere spår i økende grad at Internett vil bli dominerende i vårt dagligliv i de nærmeste årene, fordi vi vil bli nødt til å ta den i bruk via vår hjemme-PC. Tilbakevisning av slike gale trend-baserte påstander er nå nødvendige, og her er en mot-hypotese: Internett er en flop; det vil si en «motegreie» som kommer til å dø ut om et par år.

Det er tre grunner til dette: 1) ingen av aktørene på nettet vil tjene penger på å legge seg der med sine tilbud, 2) privat bruk av nettet vil være marginalt, og 3) mengden av informasjon på nettet vil bli så enorm at det vil skape frustrerende store søkeproblemer, og dermed frafall av brukere. Hva gjelder punkt en så tror jeg at vi snart vil få se en leverandørflukt fra Internett, når disse oppdager at de har lurt seg selv, redde for ikke å være moderne eller være tilstede der «alle de andre» er.

Hva gjelder punkt 2 så vil jeg ta utgangspunkt i hva flere medieguruer sier. De uttaler at Internett innen år 2000 vil være en like naturlig del av dagliglivet som PC-en er idag. Dette postulatet er galt, av den enkle grunn at PC idag ikke er en naturlig del av dagliglivet. Feilen oppstår fordi man ikke skiller mellom bruk av PC på jobb, og hjemme.

Datautviklingen og bruk av PC på jobb har revolusjonert arbeidslivet, og vil fortsatt gjøre det. Dette er stort sett en velsignelse for arbeidstagerne. Den store feil fremtidsforskerne og datafreakene gjør er imidlertid å trekke erfaringene fra bruk av PC på arbeidsplassene inn i hjemmet. De påstår derfor at en tilsvarende revolusjon vil skje der, men en slik projisering holder ikke, hverken i teori eller praksis. Utbredelsen av PCer i hjemmene vil nok øke noe i årene som kommer, men jeg tror vi allerede er nær toppen. Og denne toppen er kanskje fem prosent av befolkningen, mens med andre ord 95 prosent ikke bruker PC hjemme (selv om mange har kjøpt en). Og det er bruken av PC som teller, ikke besittelsen. Grunnen til dette er simpelthen at mennesket er et sosialt vesen, og etter en stund kommer til å bli lei av å kommunisere med en maskin i fritiden. PC i hjemmet kommer i all hovedsak til å bli benyttet til jobb- og studie-relaterte oppgaver, samt til spill og underholdning. Og selv volumet av disse positive anvendelsene blir små, også på lang sikt.

Det er forbløffende å konstatere hvordan fremtidsforskere og dataeksperter overser dette fundamentale sosiale element hos mennesket. Det er enkelt å registrere at vi mennesker er slik skapt at vi faktisk ikke ønsker å forholde oss til en datamaskin hele dagen, men at vi trenger å kommunisere med andre levende vesener. Særlig gjelder det dem som bruker PC på jobben. Vi vil derfor ikke benytte en maskin når vi i fritiden skal kommunisere med omverdenen. Vi vil heller ikke sitte alene hjemme og utføre jobben vår, uten kommunikasjon med et kollegialt arbeidsmiljø. Såkalt «fjernarbeid» kommer derfor heller aldri til å bli særlig utbredt, men forbli en ubetydelig avart.

Mennesket vil alltid knytte seg til et sosialt felles miljø, fordi det hører til de basale holdninger og behov vi er skapt med. Disse vil ikke forandre seg i nevneverdig grad, til tross for PCen. Når vi skal bestille våre billetter eller reiser så vil vi snakke med et levende menneske, ikke taste inn på en maskin. Når vi leier vår video så vil vi besøke utleieren og velge i visuelle omgivelser. Shopping vil vi gjøre ved å oppsøke det levende miljø i butikkene, ikke sitte hjemme og bestille varer. Vi klarer ikke å «snakke» med eksterne familiemedlemmer eller venner via en PC, så lenge vi kan ringe eller besøke dem. Vi vil ikke lese hverken aviser, fag- eller skjønnlitteratur ved å «bla» i en datamaskin, men ved å kjenne papiret og boken i våre egne hender. Disse tingene vil ikke kunne erstattes av «PC-opplevelser», og slik vil det heldigvis fortsette å være, for slik er den menneskelige natur. Kort oppsummert: de sosiale basis-behov hos oss står i direkte motstrid til bruk av datasystemer i hjemmet, og vil naturligvis seire i det lange løp. Og når det gjelder bruk av Internett for å få all verdens informasjon, så tror jeg at dette vil dø ut av seg selv. Vi er allerede overfôret med informasjon, og får dessuten den vi trenger via trykte medier, radio og TV.

Idag er det kun én prosent av befolkningen som bruker Internett hjemme, og særlig flere tror jeg ikke det vil bli. Hvordan det er mulig å lage så mye styr omkring et medium som 99 prosent av folket ikke benytter seg av privat, kan bare forklares med at det er massemediene som er hovedaktørene også på Internett.

Motegreie. *Internett er en motegreie som kommer til å dø ut om et par år, mener Leif Osvold.*

1996

”Det var i alle fall det som var spådommen i et leserinnlegg som stod på trykk i Dagens Næringsliv i 1996. I dag bruker vi internett til det meste - og nettbruken fortsetter å øke med 40 prosent i året.”

”Forfatteren av leserinnlegget innrømmet ti år senere at han hadde bommet på spådommen”

http://www.dn.no/nyheter/2005/10/25/-internett-er-en-flopp

Web Platforms

Servers

Web Servers

Database Servers

The Cloud/
Internet/
Local Network

Clients

PCs with Web Browsers

Web Server Platforms?

Web Server Platforms

We will use Apache this Week when creating HTML Web Site

We will use IIS later when creating a Test Environment

(pronounced "engine x")
- Has become very popular lately

PHP

Microsoft IIS

Internet Information Services

ASP.NET

Cross-platform: UNIX, Linux, OS X, Windows, ...

The term web server can refer to either the hardware (the computer) or the software (the computer application) that helps to deliver web content that can be accessed through the Internet.
The most common use of web servers is to host websites, but there are other uses such as gaming, data storage or running enterprise applications.

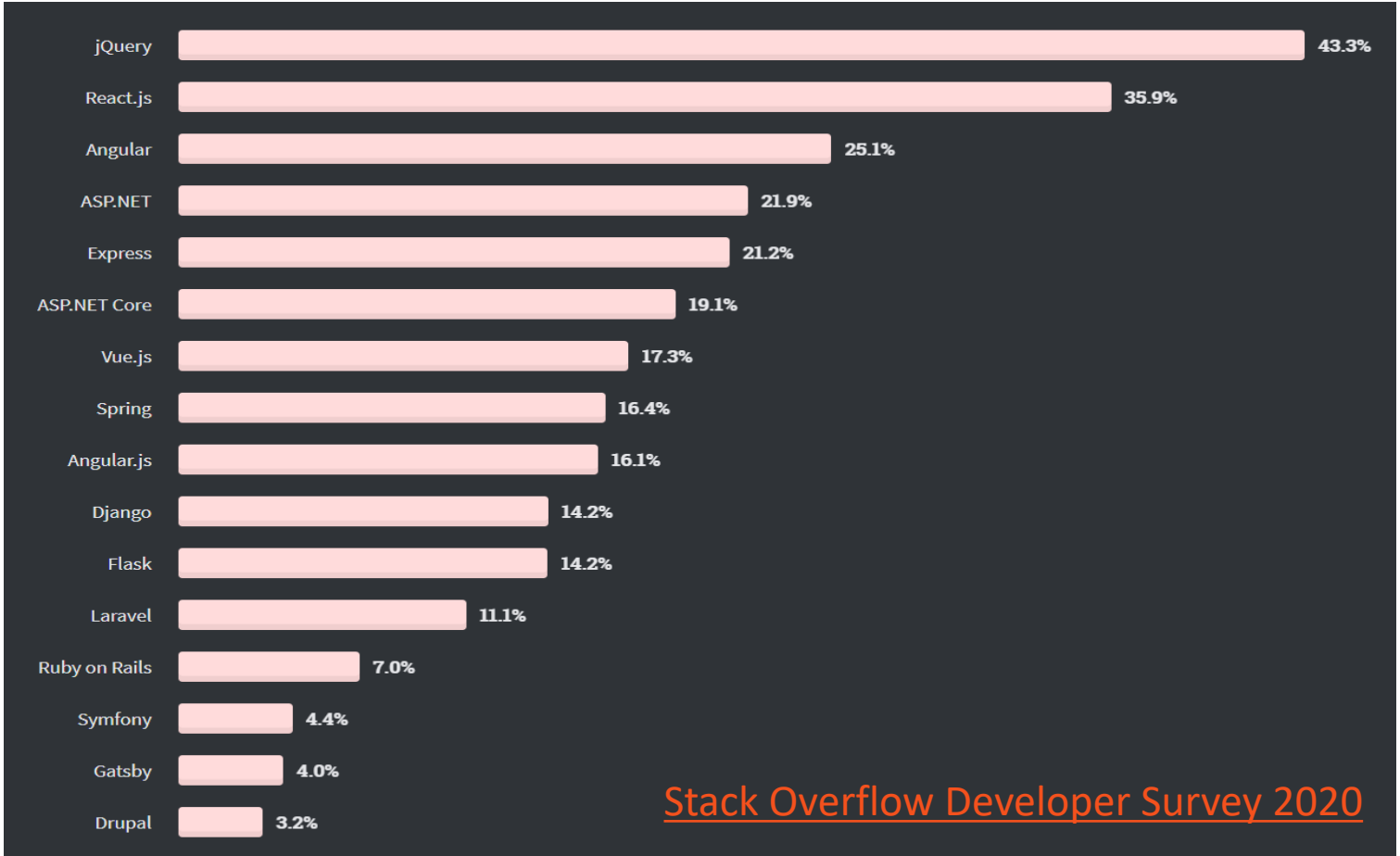
Web Servers Market share*

Product	Vendor	Platform	Percent
Apache	Apache	Open Source Cross Platform	34.5%
Nginx	Nginx, inc	Free + Paid versions Cross Platform	33.7%
Cloudflare Server	Cloudflare, inc	Growing fast!!	17.6%
IIS (Internet Information Services)	Microsoft	Windows, Included with Windows (Windows Server, Windows 10 Pro)	7.2%
LiteSpeed	LiteSpeed	Proprietary, Linux	8%
GWS (Google Web Server)	Google	Custom Linux-based Web server that Google uses for its online services	1.2%

*February 2021

https://en.wikipedia.org/wiki/Web_server

Popular Web Frameworks



Database Platform?

Database Platforms

ORACLE®

Development/Programming Platforms?

Development/Programming Platforms

YouTube http://www.youtube.com/watch?v=8Px-GHPxB4I 3min

Cloud Computing/Cloud Platforms?

Cloud Computing/Cloud Platforms

We will use Microsoft Azure later in our Project

They rent Cloud based services like Virtual Machines (Computers with OS running in the Cloud), Web Server, Database Systems to Customers based on Monthly Fees

Amazon Web Services

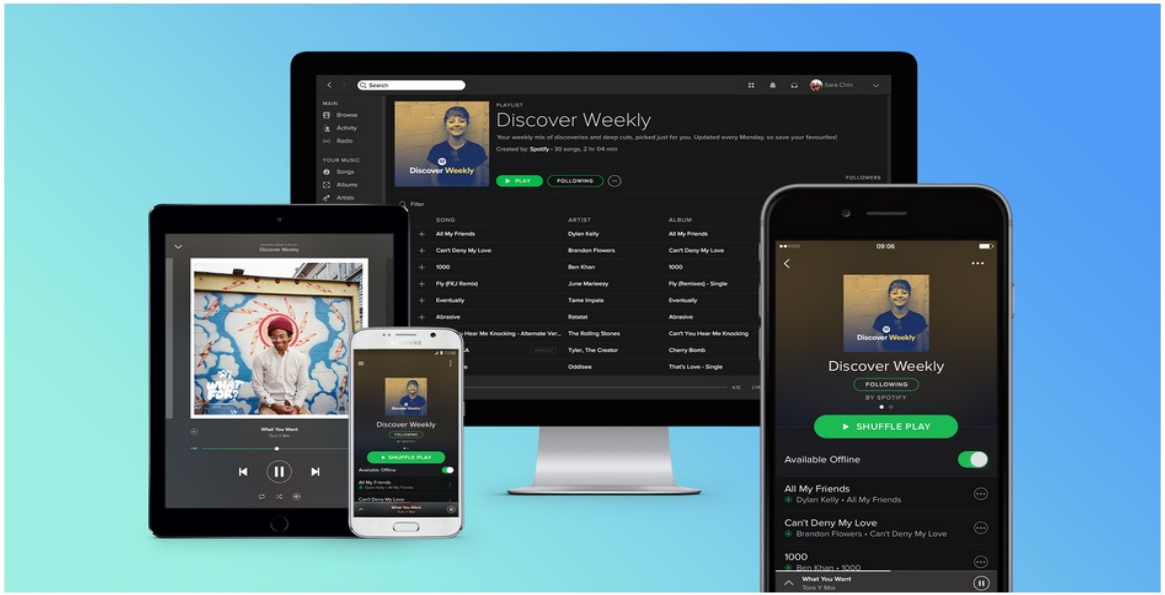
Atle Jørgensen er del av et lite utviklerteam i Sør-Afrika, som de siste 7 årene har utviklet skytjenester for Amazon. (Foto: Marius Jørgenrud)

Atle (42) står bak Amazon-skyen

INTERVJUET: Fikk drømmejobben på surfetur i Sør-Afrika.

http://www.digi.no/919886/atle-42-staar-bak-amazon-skyen

Google Cloud Platform



Spotifys musikkstrømming skal heretter skje fra Googles nettsky. Foto: Spotify

GOOGLE CLOUD PLATFORM

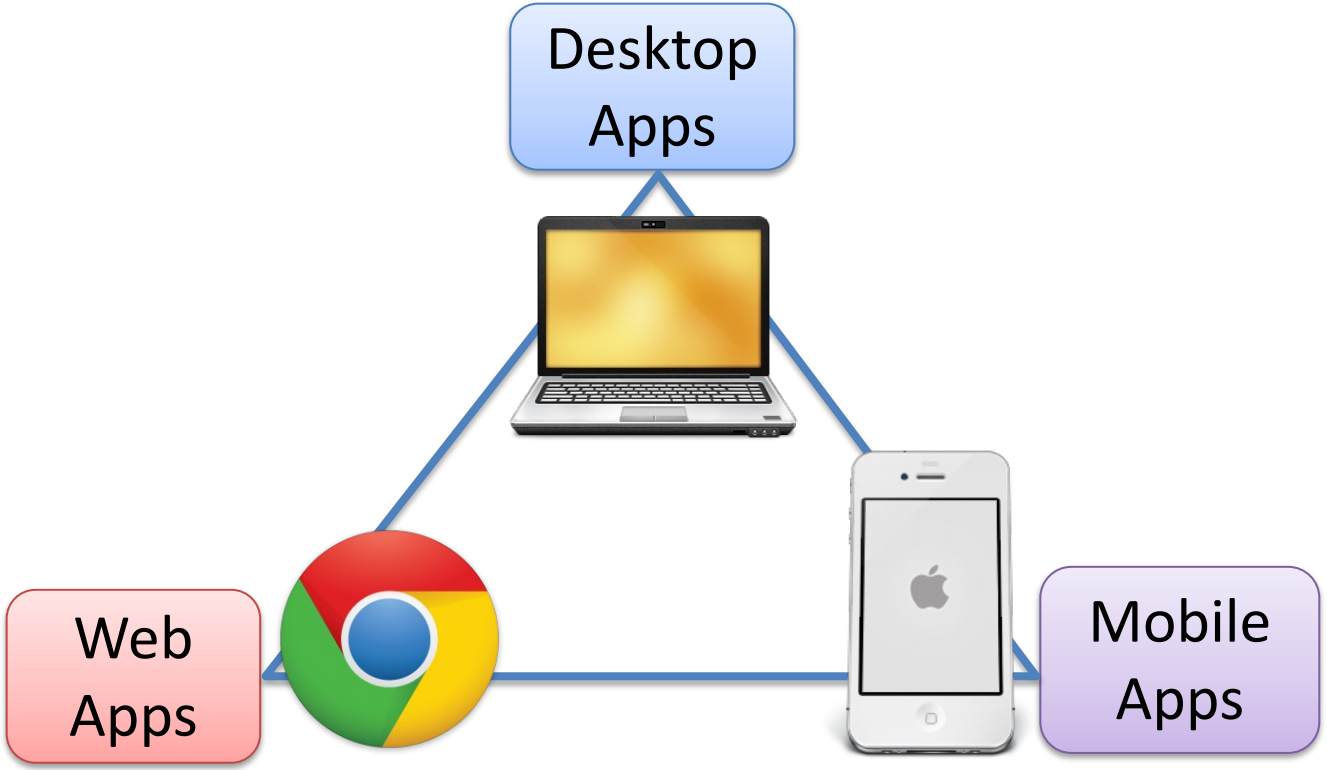
Spotify flytter til Google

Kvitter seg med egne datasentre.

http://www.digi.no/bedriftsteknologi/2016/02/24/spotify-flytter-til-google

Web vs. Desktop vs. Mobile

Advantages/Disadvantages?



Advantages/Disadvantages

Desktop

- Good Performance
- Different Platforms, different Programming methods and languages
- Installation is not always easy

Web

- Runs inside a Web Browser
- The Performance is not so good as it is for ordinary Desktop Applications
- Multiplatform, Works on all platforms, Code only once
- More complicated to create rich user interfaces
- Some differences in the behavior depending on the Web Browser.
- End-user don't need to install anything

Mobile Devices

- Good performance, but less performance than an ordinary computer
- Different Platforms, different Programming methods and languages
- You need to Create 3 different Apps (one for each device)
- Easy to install (App Store) and use Apps

Cloud Computing

- **SaaS** – Software as a Service
  - Software as a Service provides you with a completed product that is run and managed by the service provider.
  - You don't have to worry about the installation, setup and running of the application. Service provider will do that for you. You just have to pay and use it through some client.
  - Examples: Google Apps, Microsoft Office 365, web-based email systems
- **PaaS** – Platform as a Service
  - Providing a platform on which software can be developed and deployed.
  - Platforms as a service remove the need for organizations to manage the underlying infrastructure (usually hardware and operating systems) and allow you to focus on the deployment and management of your applications.
  - Examples: AWS, Microsoft Azure,... (e.g., use a preinstalled Web Server without worrying about anything else)
- **IaaS** – Infrastructure as a Service
  - Providing a full infrastructure in the cloud, such as Virtual Machines, Servers, OS, ...
  - Highest level of flexibility and management control over your IT resources and is most similar to existing IT resources that many IT departments and developers are familiar with today.
  - Examples: AWS, Microsoft Azure,...

Scrum Meetings

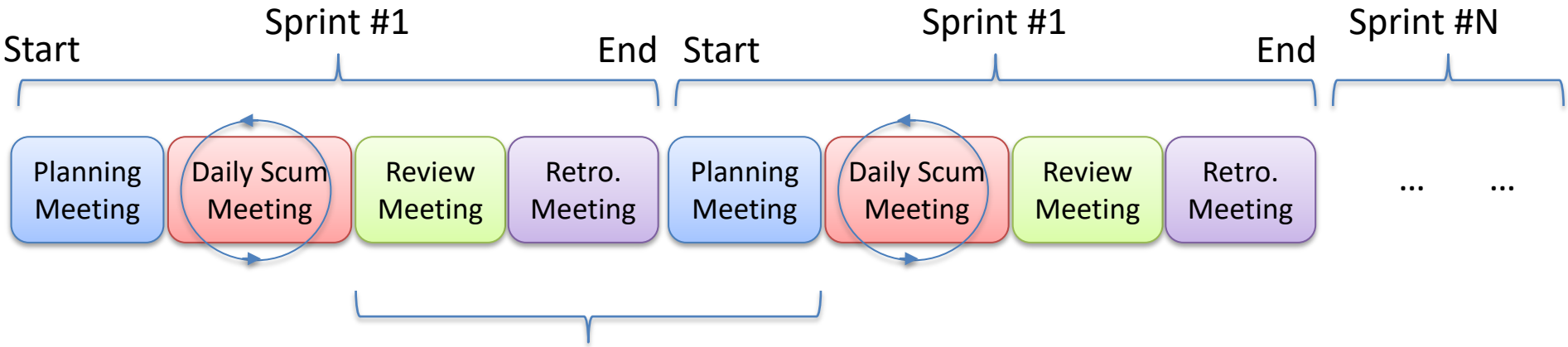
Hans-Petter Halvorsen

Table of Contents

4 different Scrum Meetings

- Sprint Planning Meeting
  - The purpose with the Sprint Planning is to discuss and select the work items for the next Sprint.
  - You select work items from the **Product Backlog** into the next **Sprint Backlog**.
- Daily Scrum Meeting (Standup Meeting). 3 Questions:
  1. What has been accomplished since last meeting?
  2. What will be done before the next meeting?
  3. What obstacles/impediments are in the way?
- Sprint Review Meeting
  - The purpose with the Sprint Review is to have a complete review of all the tasks/features that should be completed in the Sprint (Sprint Backlog items)
  - In this meeting, your team **demonstrates the features** that it completed in the sprint
- Sprint Retrospective Meeting
  - Learn from previous Sprints. Find Improvements the Scrum Team will agree on for the next Sprint.
  - Making Actionable Commitments
    1. Keep Doing
    2. Start Doing
    3. Stop Doing

Scrum Meetings



The Scrum Master is responsible for that these meetings are held

Web Site

Hans-Petter Halvorsen

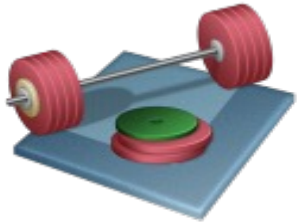
Table of Contents

Web Site

- **Create a Web Site/page for your Product**
  - Create HTML Web Site/page
  - Install on USN Web Server (Apache Web Server)
- Learn more about the Platforms (like Web Servers, etc.) you are using in your Project
  - Make sure you have Sketches and Descriptions of your Platforms in the SRS/SDD (->SRD) (“System Overview”)

See Next Slides for more details...

Create a Web Site for your Product



Start creating a Web Site with a short Presentation (Figures and Text) of your Software Product and with Documents available for download (Hyperlinks).

Include the Documents (PDF Files) created so far:

- Software Development Plan (SDP)
- Software Requirements & Design (SRS/SDD -> SRD)

(Other Documents and Resources should be added later)

- Link to Azure DevOps project

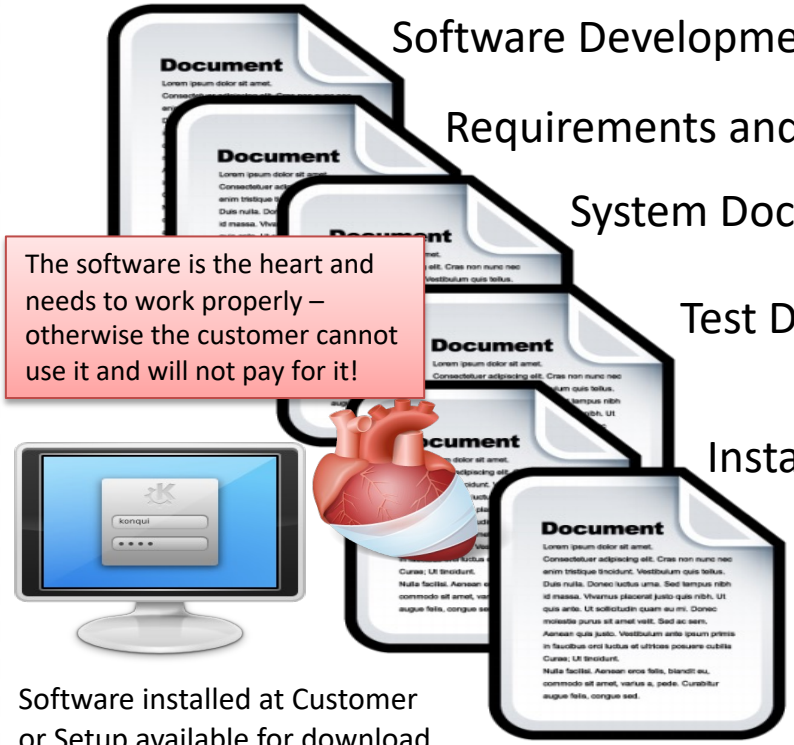
See Next Slides for more details...

“Traditional School Project” vs. “Real Software Development Project”

One Report with “everything”

One document written by 3-6 students together

Does the system works? Hopefully – but never used or tested by the reader (or the students?)



Software Development Plan

Requirements and Design Documents

System Documentation

Test Documents

Installation Guides

User Guides

The software is the heart and needs to work properly – otherwise the customer cannot use it and will not pay for it!

Software installed at Customer or Setup available for download

Many documents written by different people and intended for different people

“Final Report”

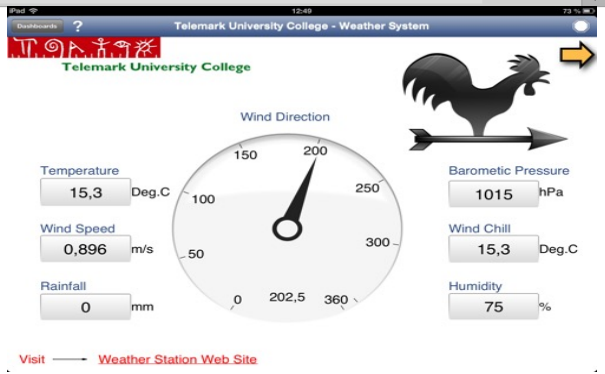
Note! The Web Site you create now will be the first draft of the “Final Report” for your Project.
The best Web Site in each Team will be selected and used further in your Project

“Chapters” and “Appendices” in the “Report”

Note! For “Read-only” Documents: Use PDF Format

tfweb.hit.no

Weather System



Description and Picture(s) of System

Demo: Link to Azure Web Site

DevOps: Link to DevOps Project

Documents:

- Software Test Plan (STP)
- Software Requirements and Design (SRD)
- Software Test Plan (STP) + Test Documents
- System Documentation
- User Guide(s)
- Installation Guide(s)
- ...

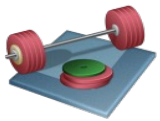
Files needed to install the System. How to install is explained in the Installation Guide(s)

Files:

- InstallationFiles.zip
- AzureDevOps.zip

Everything you have created in Azure DevOps (Code, Original Documents, etc..)

Web Site Example

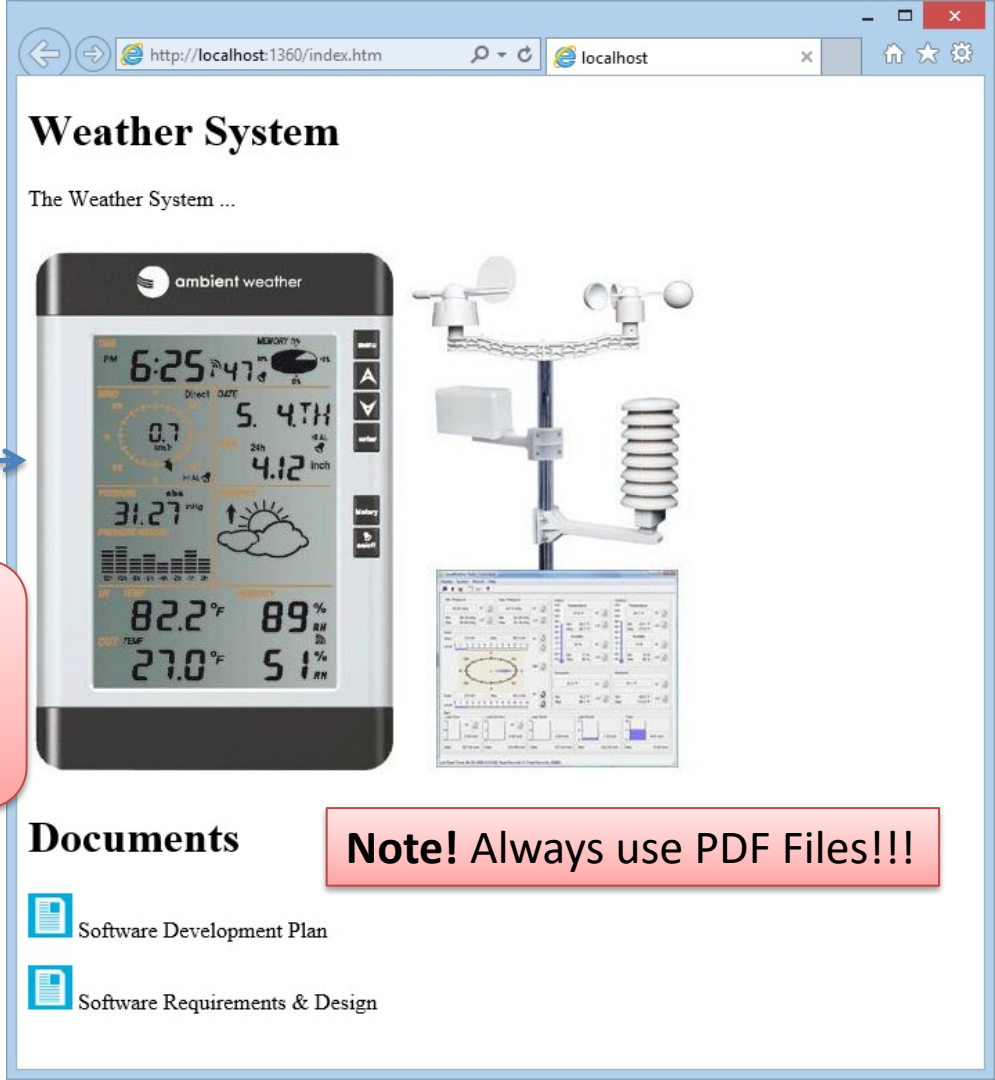


Create a similar Web Site for your Product

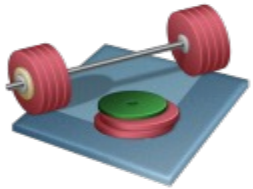
Presentation (Figures and Text) of your Software Product

Note! We should use only HTML (not ASP.NET! – because the Web Server we are using at school don't support it).
In addition you may use JavaScript, CSS, PHP

Documents available for download (Hyperlinks)



Web Server



Deploy your Web Site according to this information

We will use the available Web Server at the university. We have 2 different options. Select one of the following:

- **web01.usn.no**: Running Linux. Web Server: Apache
- ~~**home.usn.no**: Running Windows. Web Server: Microsoft Internet Information Server – IIS~~
  (No longer available for new users)

https://min.usn.no/student/tjenester-for-studenter/it-tjenester/nettverk/webomrade-egne-nettsider-article122884-28849.html

https://web01.usn.no

Server-side

HTML

CSS

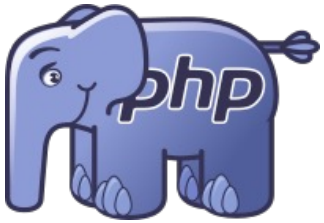
Internet

Clients

PCs with Web Browsers

Apache

HTTP SERVER



https://web01.usn.no

- Server
  - Operating System: Linux
  - Web Server: Apache
  - Database: MySQL
  - Supported Languages: HTML, CSS, PHP
- Example: https://web01.usn.no/~hansha/

https://web01.usn.no

- **https://web01.usn.no/~username**
- User Name = Student Number
- Allowed Start Pages:
  - **index.html**
- **FTP**: WinSCP
  - Host Name: web01.usn.no, User Name: Your Student Number
  - Create a folder **public_html** on the server where you put your HTML files inside
  - Note! Linux distinguishes between uppercase and lowercase letters (use index.html NOT Index.html)
- https://min.usn.no/programvare/eget-webomrade-web01-usn-no-article217606-32428.html

Note! Set proper Read/Write Properties for both your root folder and for the public_html folder by right-clicking and select Properties on these folders in your FTP program

https://web01.usn.no

Not Working Checklist:

- ❑ Use correct Url: **https://web01.usn.no/~username**
- ❑ Use **index.html** NOT Index.html (Why?)
- ❑ Create and put your .html files into a folder **public_html** on the Web Server
- ❑ Set proper Read/Write Properties for the public_html folder by right-clicking and select Properties in the FTP program
- ❑ Set proper Read/Write Properties for your root folder by right-clicking and select Properties in the FTP program. The name of the root folder is your Student Number

Web Site

- We shall create a Web Site (HTML, CSS) that introduces the product you are creating, including documents you have created (SDP, SRD, ...)
- This is an individual activity, meaning all team members should create such a web site.
- You need to know basic **HTML**. A good source is: https://www.w3schools.com/html/
- Recommended HTML Editor: **Visual Studio Code** (or you can use Visual Studio, but VS is not well suited for HTML pages)
- The best web site within each group should then be selected and used further in the project.
- We will use the available Web Server at the university. The Web address (URL) will be like this: **https://web01.usn.no/**~hansha (You should use your Student Number)

Resources:

https://min.usn.no/programvare/eget-webomrade-web01-usn-no-article217606-32428.html

Web Development in your Project

1 HTML (Installeres på USN sin Web Server)

Det er denne dere skal lage denne uka

Eksempel på innhold:

- Tittel
- Figurer og kort beskrivelse av produktet deres
- Linker til dokumenter (PDF) som SDP, SRD (flere dokumenter kommer senere)
- Link til setup, e.l. (Kommer senere)
- m.m.

"Commercial" Web Page with information about your Product, you can download setup files, documents, etc.

vs.

ASP.NET 2

(Kjører foreløpig lokalt på din utviklings PC)

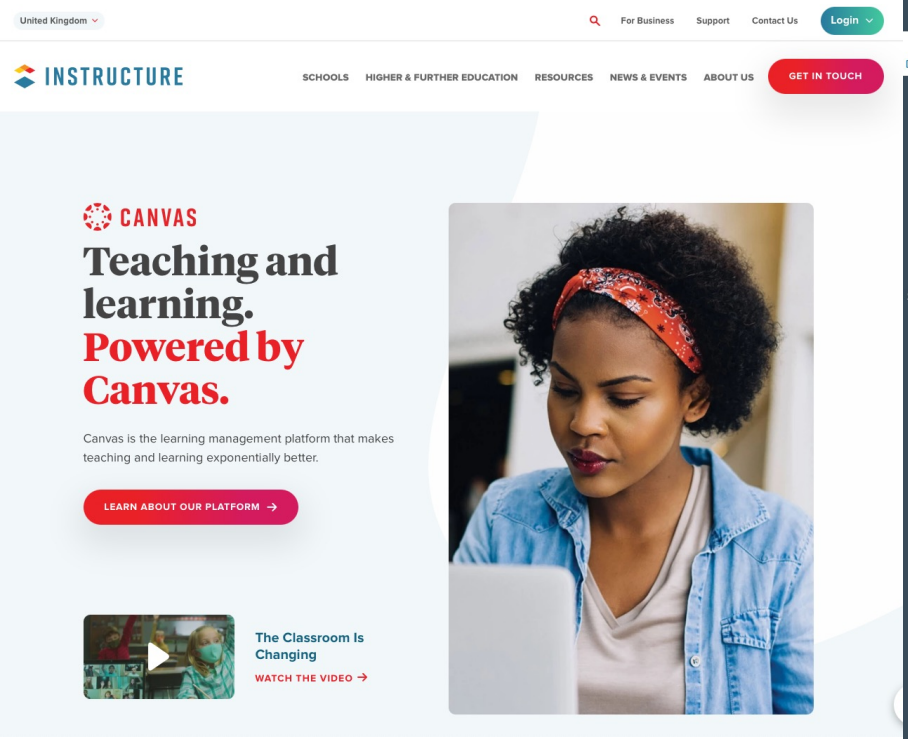
Dette er produktet deres som dere skal lage ihht. SRD

Your web-based Product -> Web Application

Illustrative Example

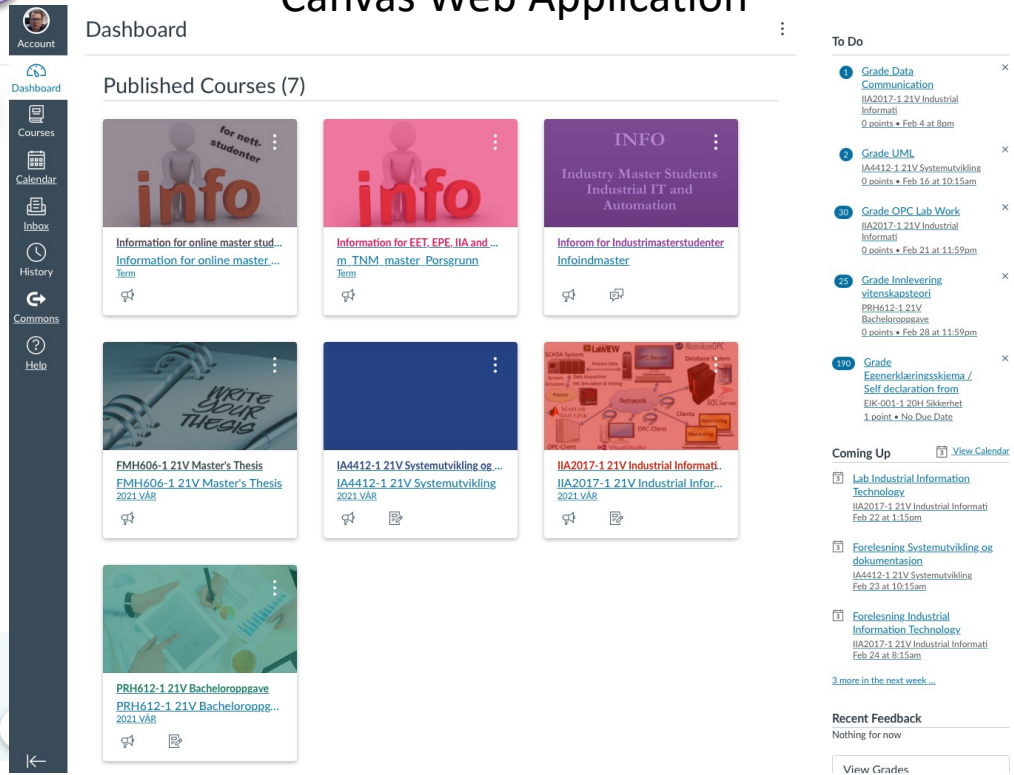
1

The Vendors Home Page



2

Canvas Web Application



Product Information Web Site vs. Product Web Application

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 - Its just like using MS Word.

Other HTML Editors (not WYSIWYG)

- **Visual Studio Code**
- Visual Studio (ASP.NET)
- CoffeeCup ($69, Free Trial)
- Coda ($99)
- ... NotePad

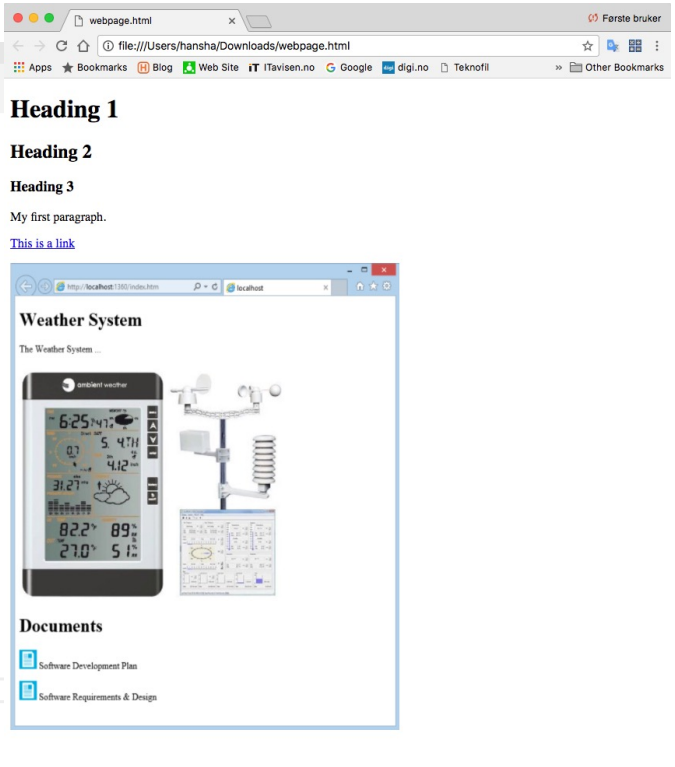
Only possible to change the HTML source code and then select “Preview” in order to see how it looks like in a Web Browser.
You need to know HTML syntax

Simple Web Page in Visual Studio Code

webpage.html

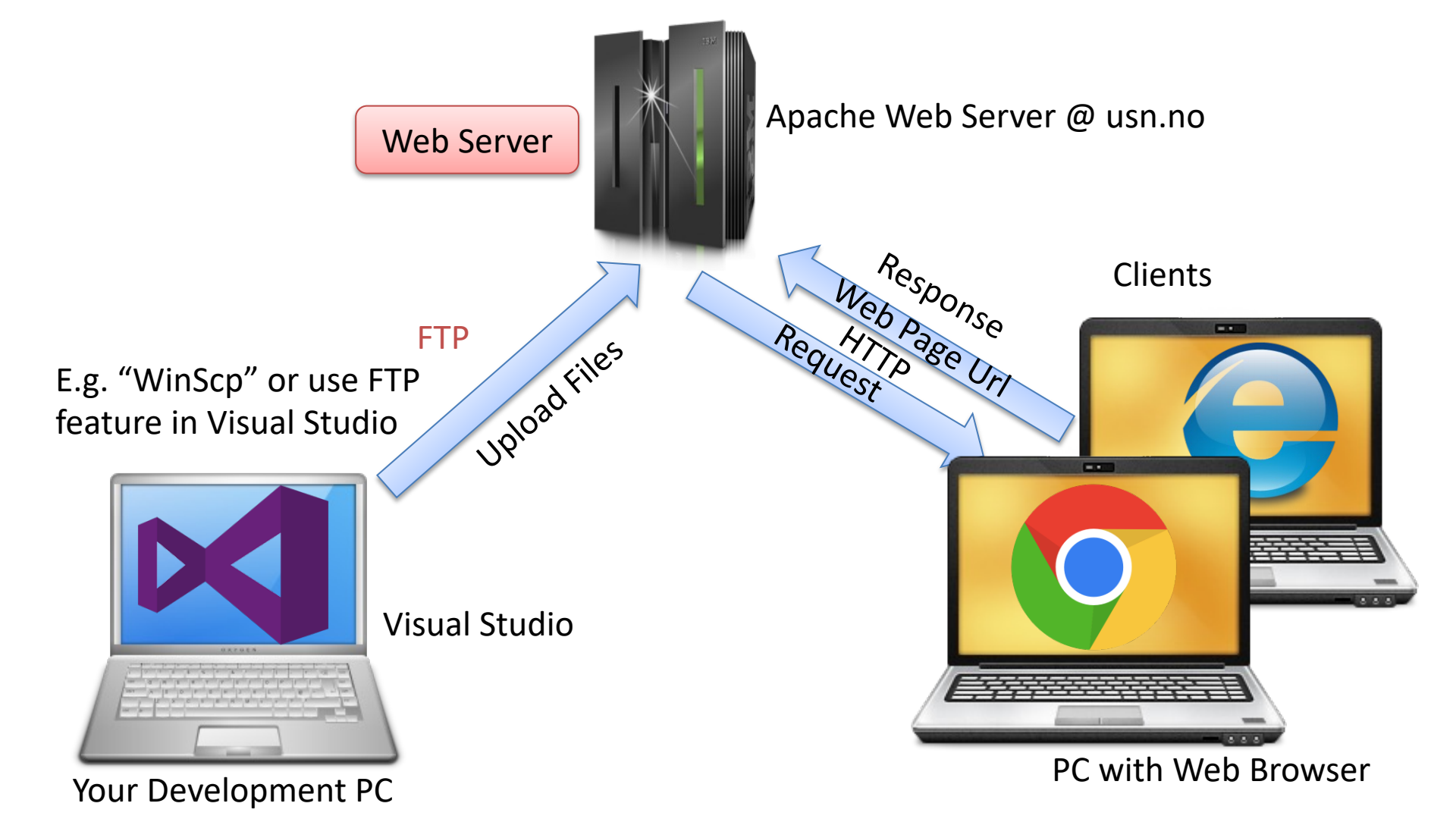
```
<!DOCTYPE html>
<html>

<body>

    <h1>Heading 1</h1>
    <h2>Heading 2</h2>
    <h3>Heading 3</h3>

    <p>My first paragraph.</p>

    <p>

        <a href="https://www.w3schools.com">This is a link</a>

    </p>


    <p>

        <img src="mypicture.jpg" width="500" height="600">

    </p>


</body>

</html>
```

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

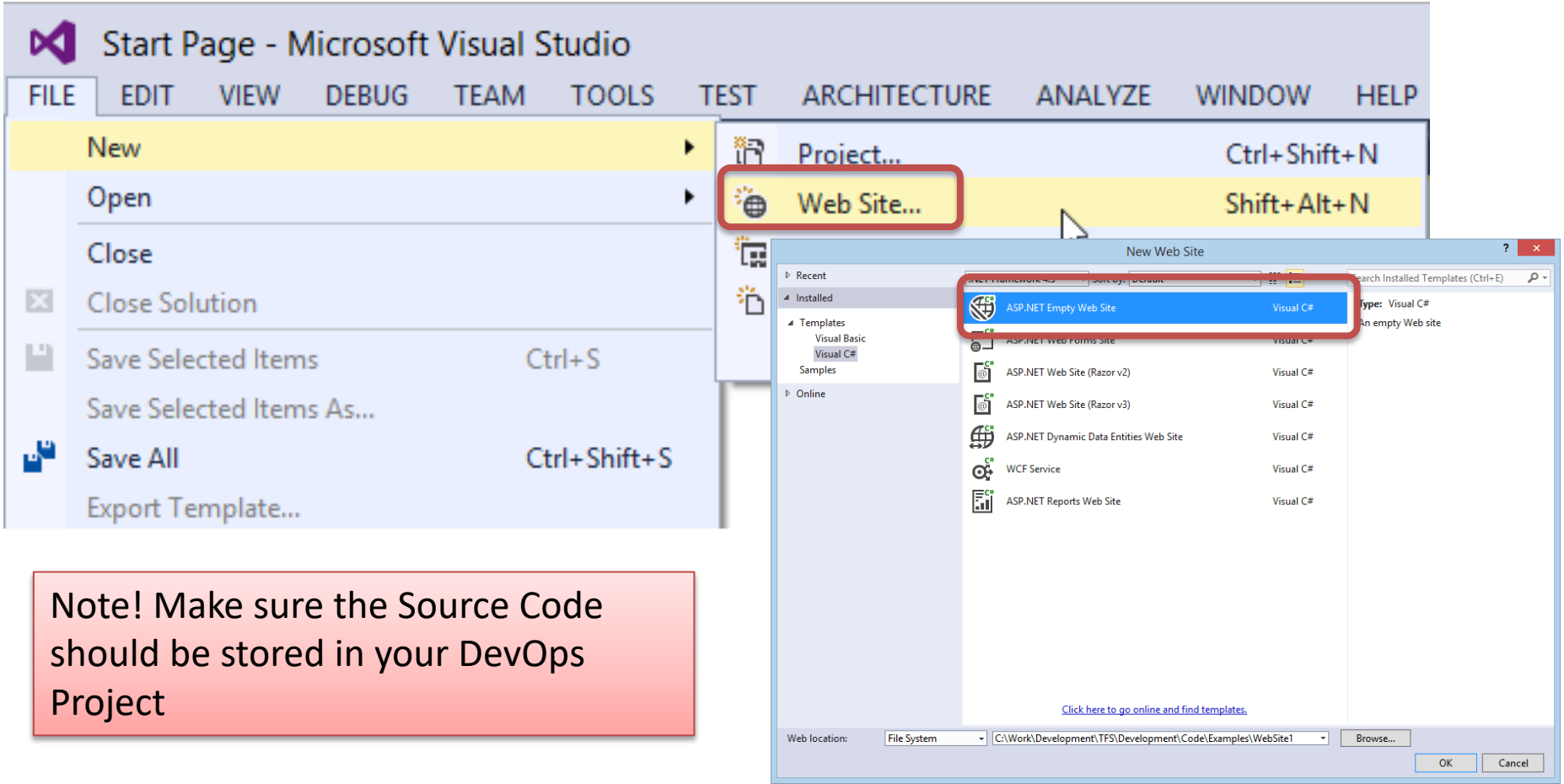


Create a Web Site with Visual Studio

- Visual Studio is not well suited for creating Static HTML Web Pages.
- Visual Studio has poor WYSIWYG Editing possibilities
- We can use Visual Studio because we already use it in our Project – and basic HTML syntax is something you should know about.
- Visual Studio is more optimized for creating Dynamic Web Pages and creating ASP.NET Web Pages in special
- I recommend that you use **Visual Studio Code** instead

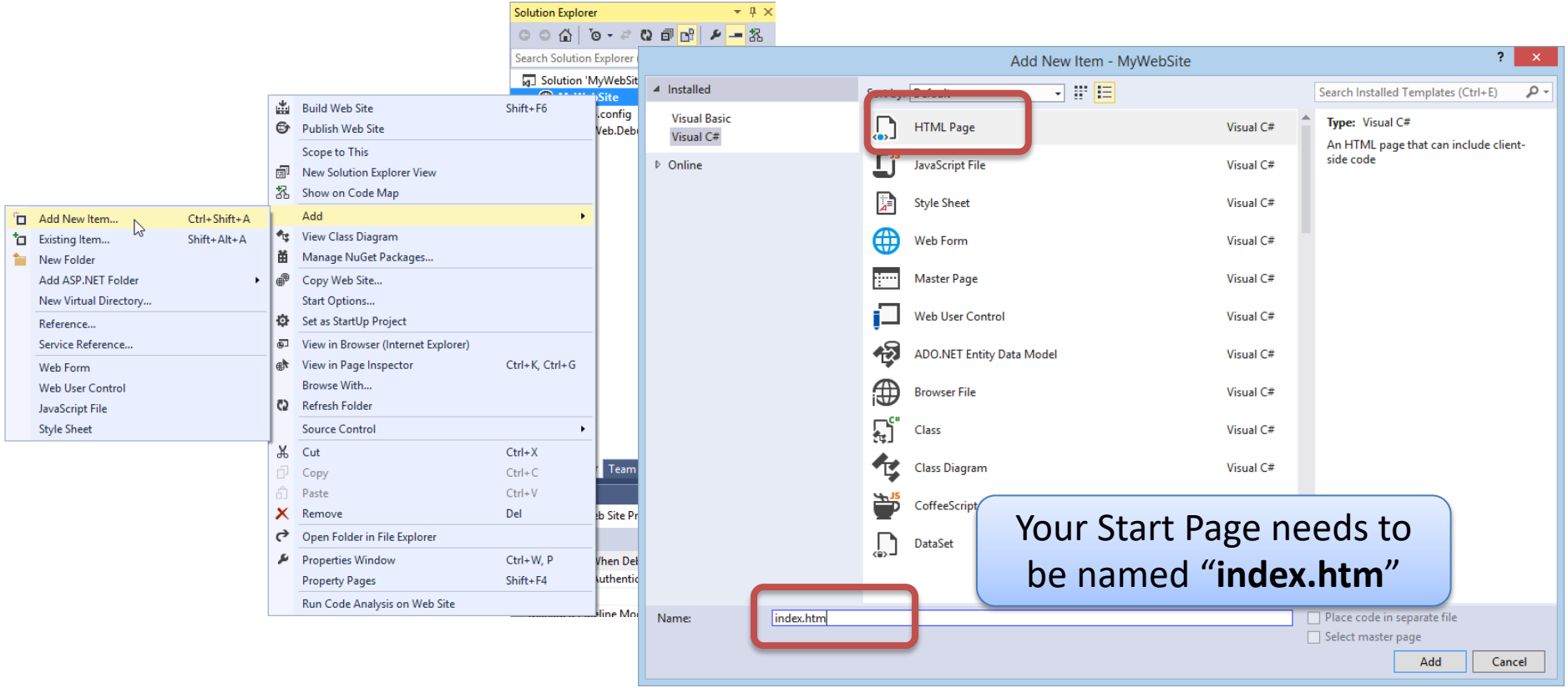

Web Server
Apache Web Server @ usn.no
Clients
Response
Web Page Url
HTTP
Request
FTP
Upload Files
E.g. “WinScp” or use FTP feature in Visual Studio
Visual Studio
Your Development PC
PC with Web Browser

Create a Web Site with Visual Studio



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

Create a Web Site with Visual Studio

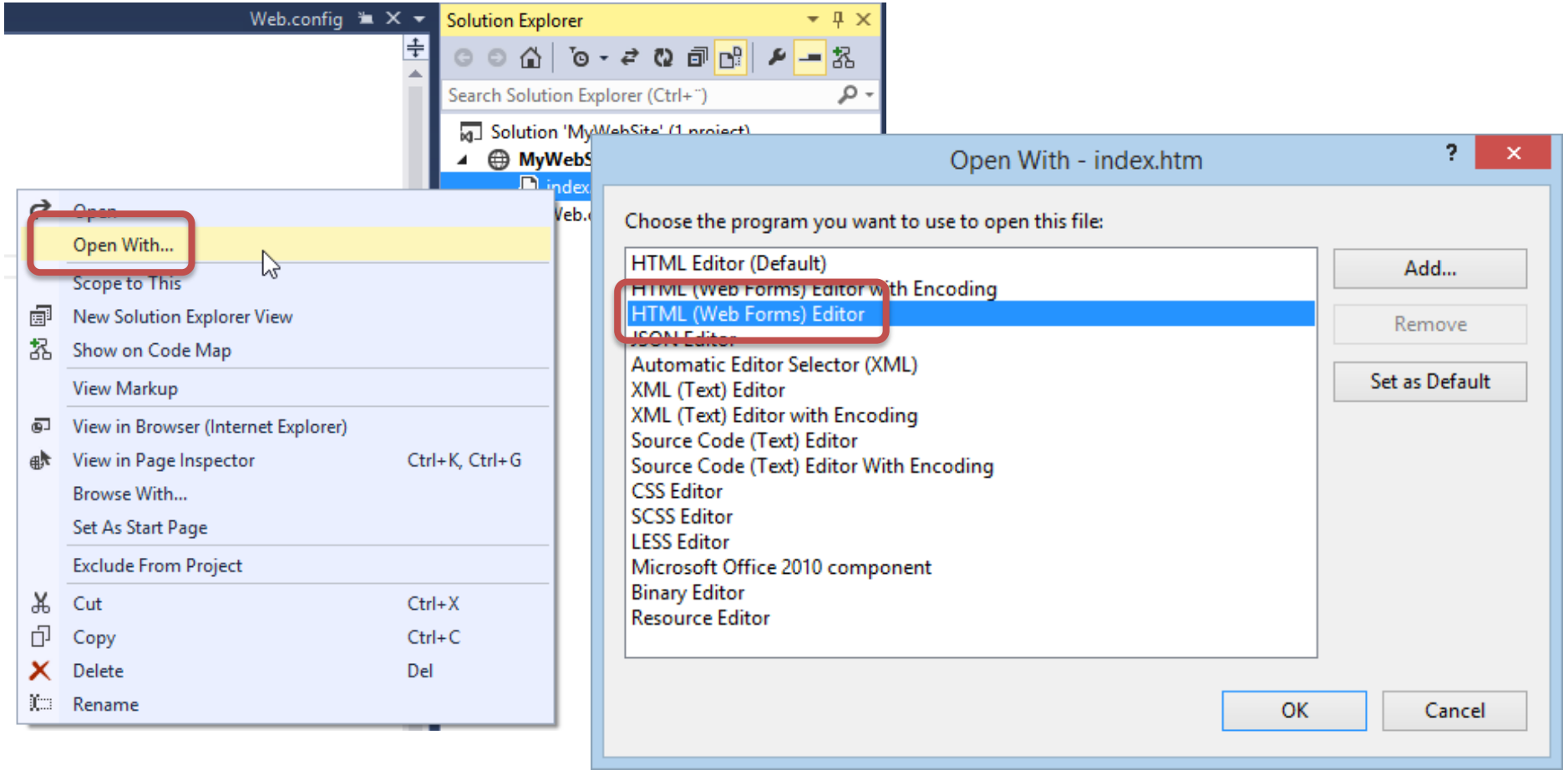


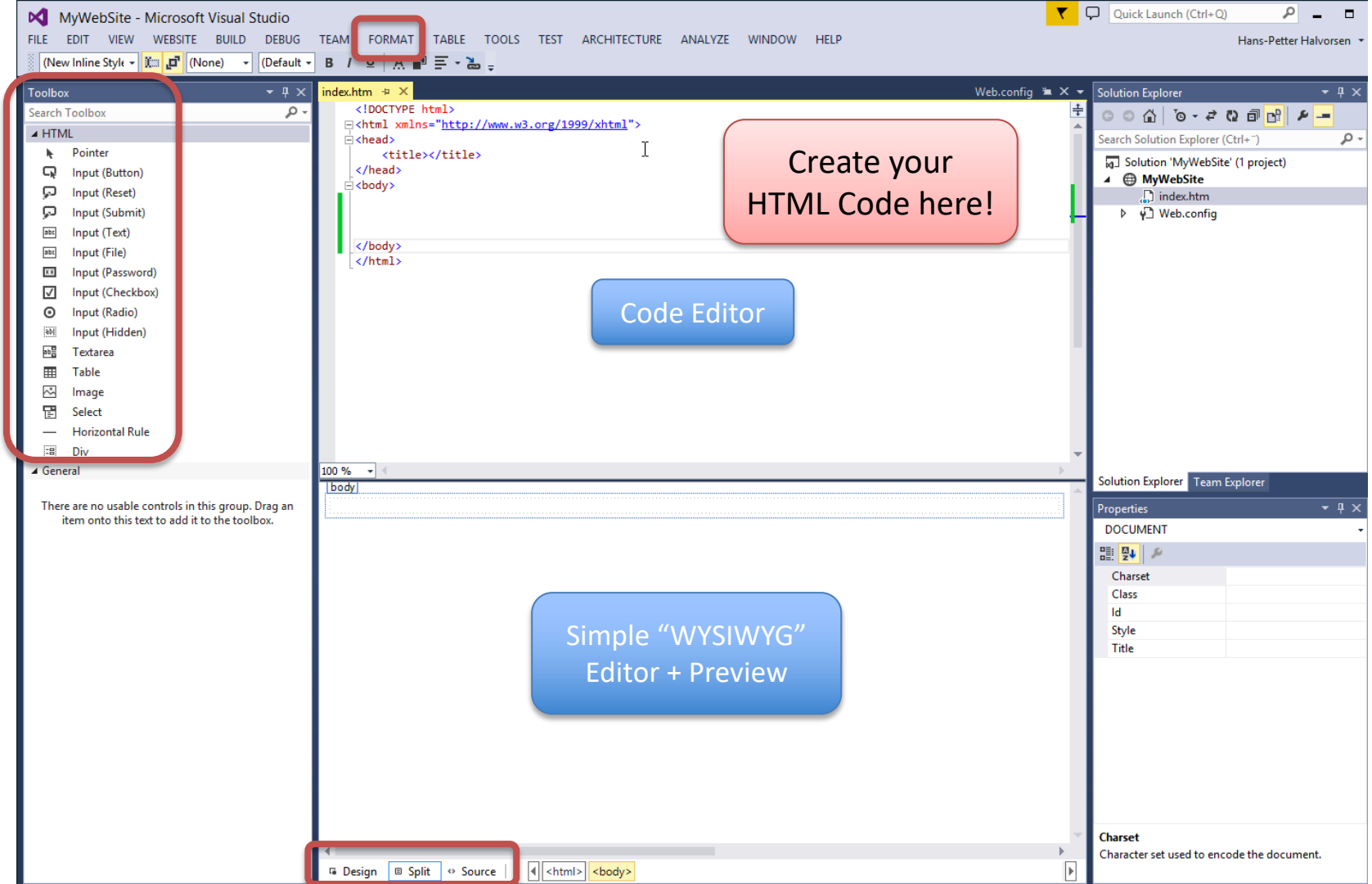
Visual Studio HTML Editor

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



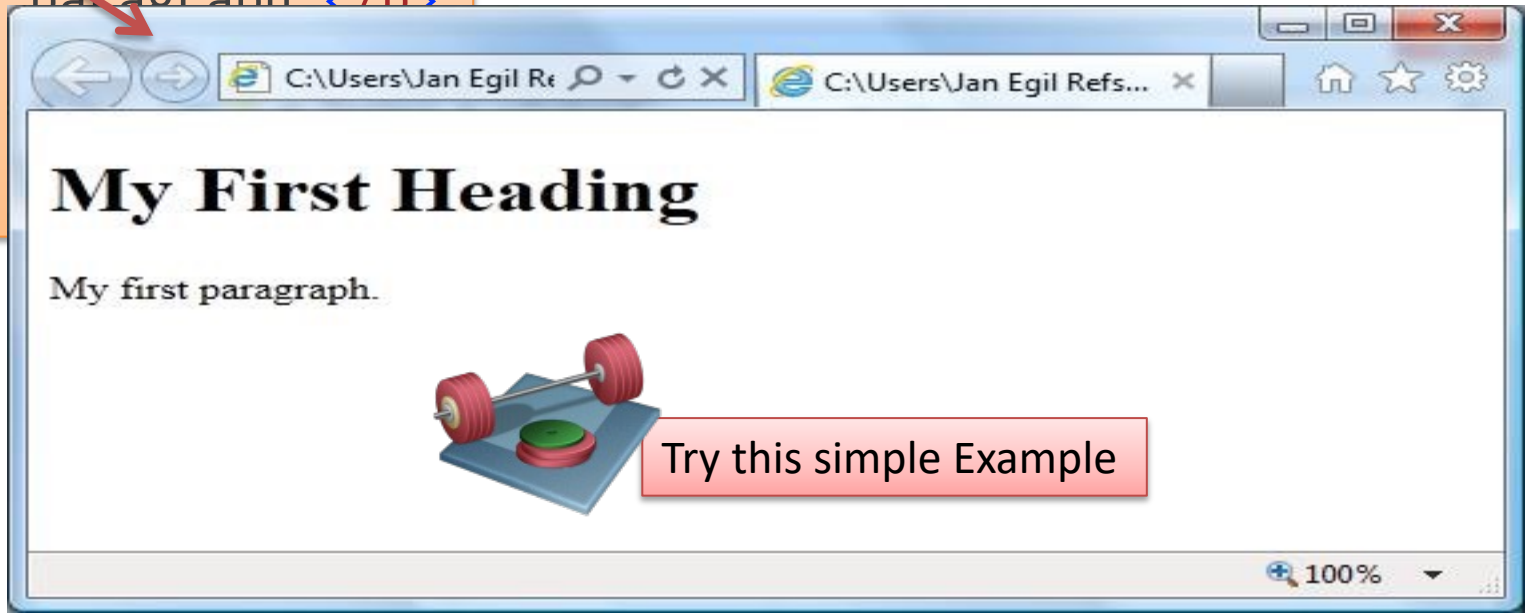

MyWebSite - Microsoft Visual Studio
FILE EDIT VIEW WEBSITE BUILD DEBUG TEAM FORMAT TABLE TOOLS TEST ARCHITECTURE ANALYZE WINDOW HELP
Hans-Petter Halvorsen
Toolbox
Search Toolbox
HTML
Pointer
Input (Button)
Input (Reset)
Input (Submit)
Input (Text)
Input (File)
Input (Password)
Input (Checkbox)
Input (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.
index.htm
Web.config
<!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
Design
Split
Source
<html>
<body>
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.

HTML Code

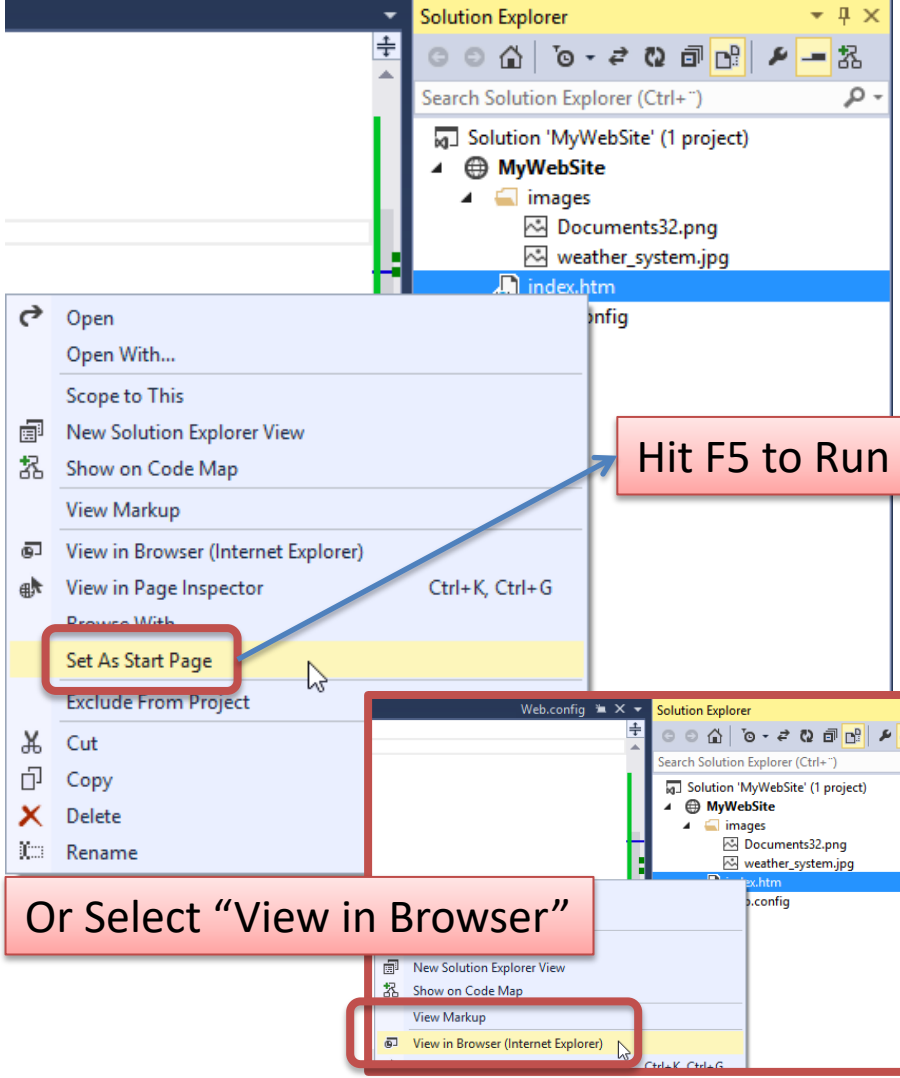
```
<!DOCTYPE html>
<html>
<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

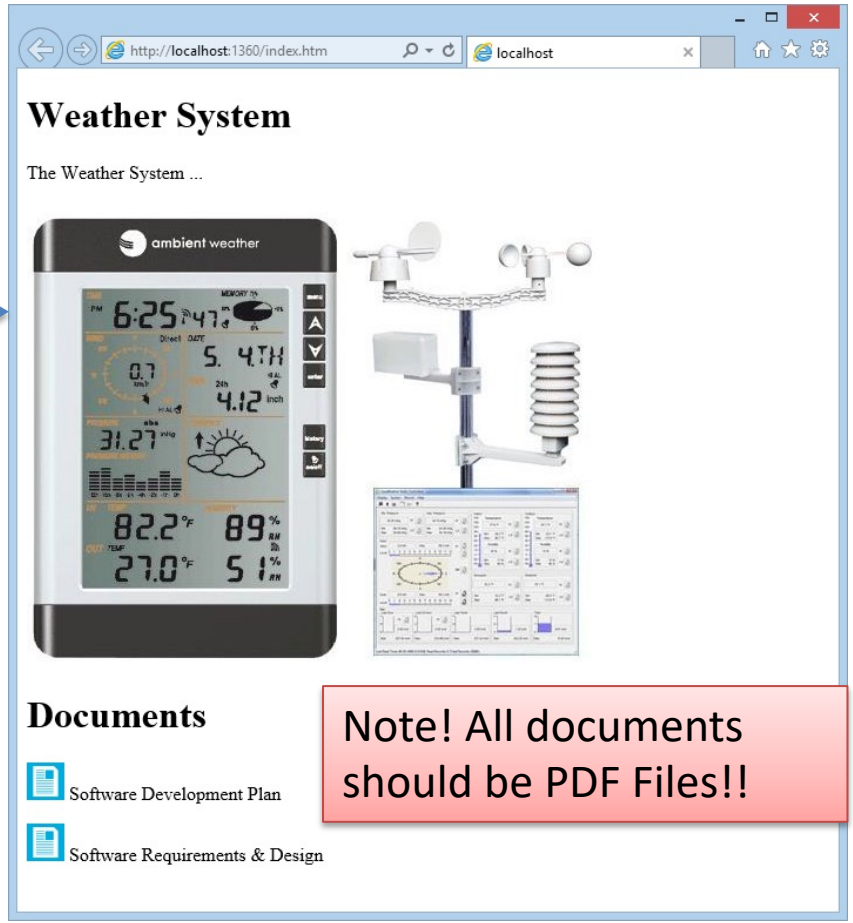
Simple HTML Page Example

Web Browser:

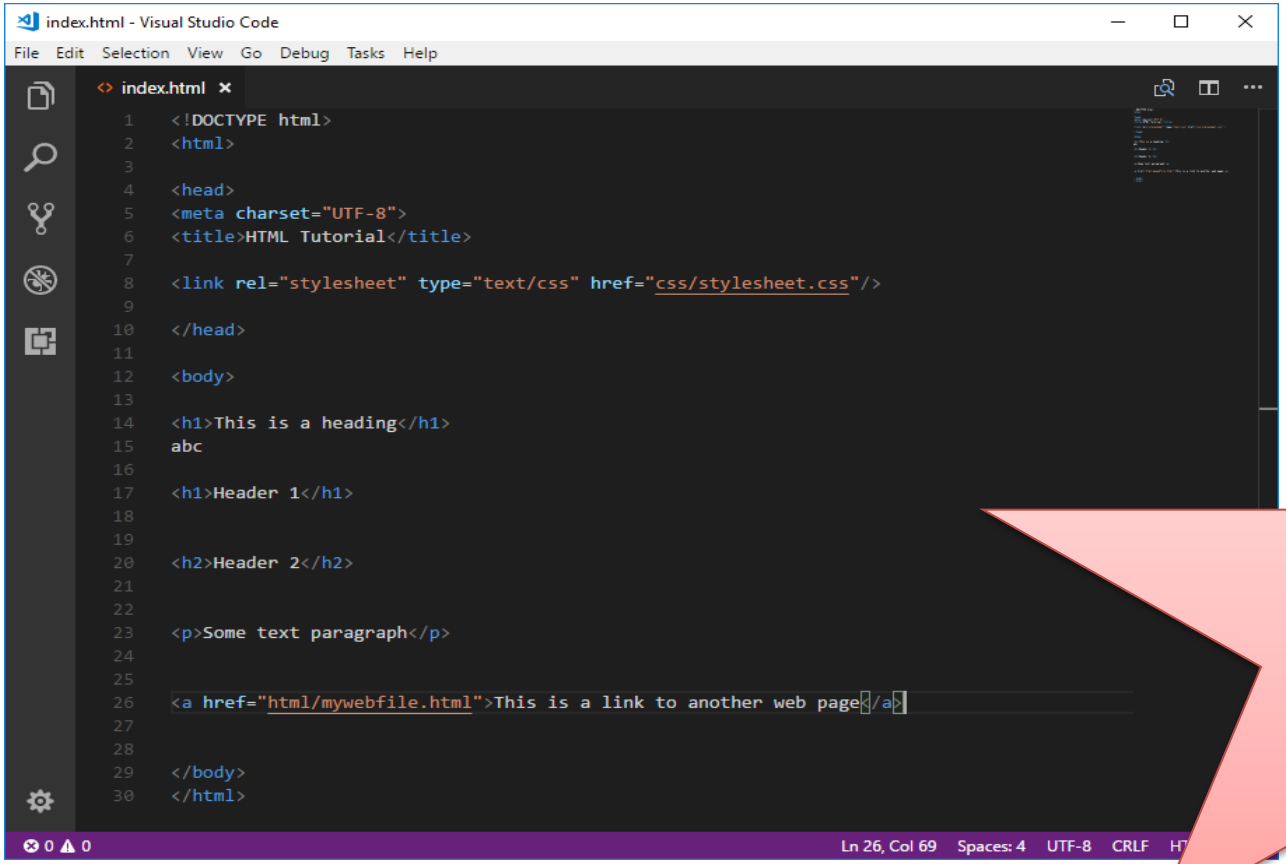


Test in Browser





Visual Studio Code



Visual Studio Code is a simple, lightweight and easy to use cross-platform Editor

Recommended

Download: https://code.visualstudio.com/

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>

<img src=“myimage.jpg" alt=”blabla" width="104" height="142">

</body>
</html>
```

HTML Tags

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:

```
<img src="myimage.jpg" alt="blabla" width="104" height="142">
```

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>
...
```

w3schools.com

HTML

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

http://www.w3schools.com

HTML: https://www.w3schools.com/html/

CSS: https://www.w3schools.com/css/

HTML Example

- Programming Languages: PHP, HTML5, CSS, JavaScript
- CSS: Bootstrap
- Database: MariaDB
- Server: Linux
- Web Server: Apache
- Responsive Web Design: The web pages look good on all devices (desktops, tablets, and phones).

https://www.halvorsen.blog

Sprint Review

Hans-Petter Halvorsen

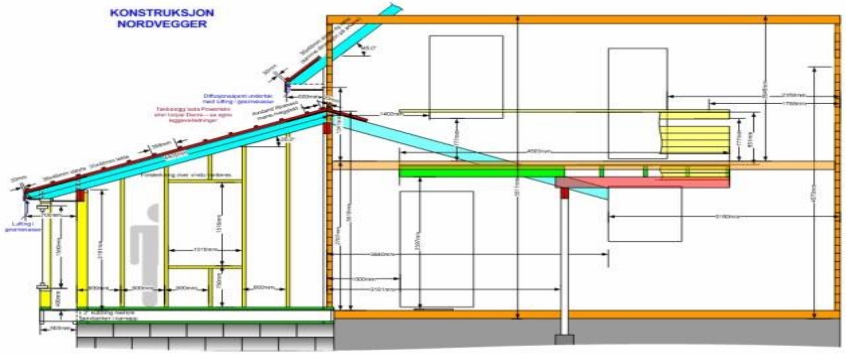
Table of Contents

Sprint Review

- Short Review of the “Alpha” Iteration.
- You should have a detailed Sprint Review session (“Alpha Release”) within your Team
  - Go through everything you have done in detail
- Sprint Retrospective
  - Inspect (Sprint Retrospective) your own Team (have a discussions) and try to figure out what was good and what that can be improved (your roles, how you work together, etc.)
- Update the Product Backlog with new Items (“User Stories”) based on the Review/Feedback

See Next Slides for more details...

Requirements/Design



Plans made and approved

Alpha

Foundation finished, building structure started
A “proof” that you can do it, PoC (Proof of Concept)

Beta

Building structure finished,
Inside work on track

RC

Furniture, Flowers and
small adjustments missing

RTM

Ready for Sale or Move in

Your “Alpha” Release/Iteration

1. Documents: The following Documents should be “finished”:

- ❑ Software Development Plan (SDP)
  - Product Description, Team Description and Project Organization, Gantt Chart, Tools and Templates, etc.
- ❑ Software Requirements and Design (SRD)
  - System overview, System and User Requirements, **Functional and Non-Functional Requirements**, **GUI Sketches**, **ER diagram**, **UML** Diagrams
- ❑ SDP and SRD can easily be found in Teams and you have made a good folder structure

2. Software/Programming:

- ❑ Tables Implemented in SQL Server (on everybody's Development PCs)– Generated from ERwin Script
- ❑ You know how to Communicate with your SQL Server Database from C# Code (You have made a small examples to for storing and reading data from the database used in your project)
- ❑ You have made some simple ASP.NET Example Applications (”Hello World App”, basic CRUD App, etc.)
- ❑ You have created Classes and Methods (according to the UML diagrams) - not the contents in the Methods, just the Names/declarations
- ❑ ALL Team Members have installed MS Project, erwin, SQL Server, Visual Studio, UML software (needed in project and exam!)
- ❑ ALL Team Members have started to do some Programming in Visual Studio!
- ❑ ALL Team Members have been given a clear responsibility (e.g., a separate module or application) when it comes to Programming!

3. Azure DevOps (give access to HPH):

- ❑ A good Folder structure has been made + Iterations (Alpha, Beta, RC, RTM)
- ❑ Product Backlog has been made (A List of Requirements for your System)
- ❑ ER Diagram, Database Scripts, etc. have been uploaded/Checked-in
- ❑ Code Examples/Prototypes have been uploaded/Checked-in + Same with Database Script

4. Project Web Page

- ❑ A simple HTML Web Page with an Introduction (Text and Figures) + Links to SDP and SRD (PDF) +++

Sprint Review Meeting

Purpose: **Demonstrate** what the Team has done in the Sprint and get Feedback from the involved.

Sprint Review Meeting

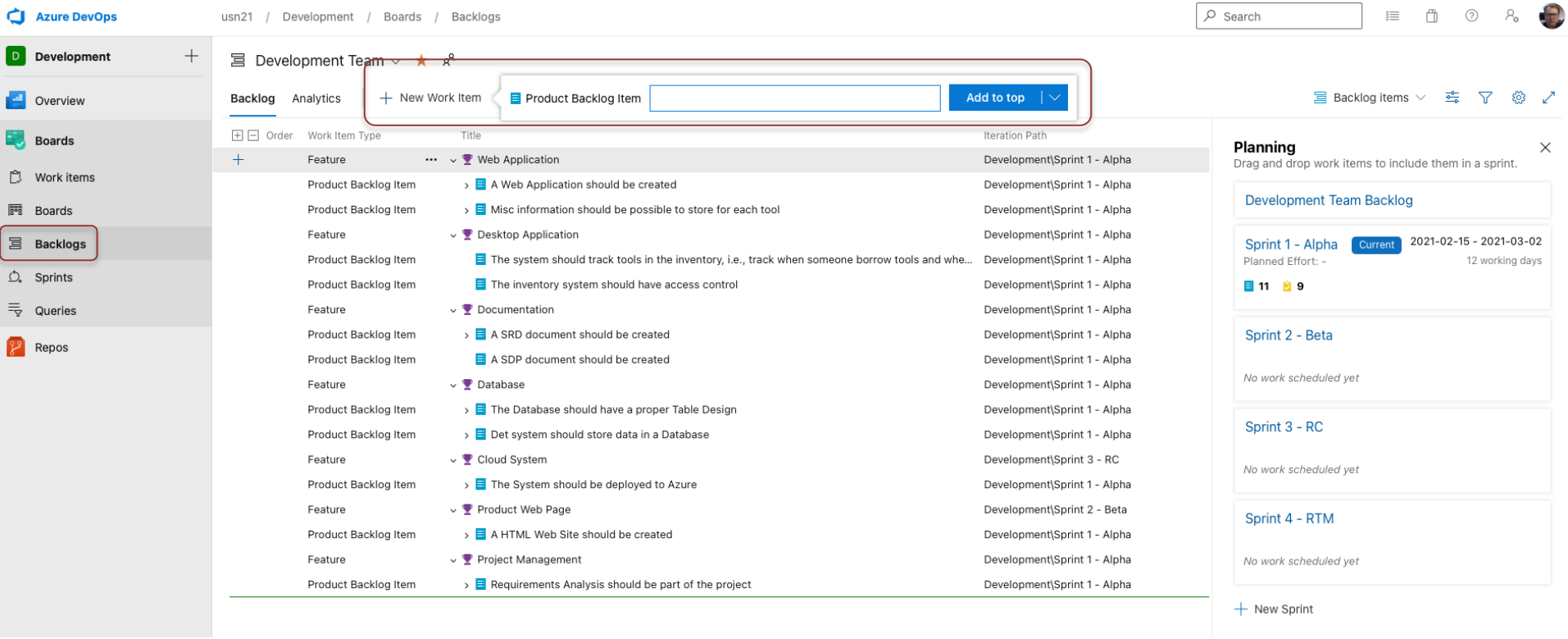
- **The pupose with the Sprint Review is to have a complete review of all the tasks/user stories that should be completed in the Sprint (Sprint Backlog).**
- On the last day of the sprint, your team meets with your product owner, customers, and stakeholders to accept completed work and to identify new requirements.
- **In this meeting, your team demonstrates each task/user story that it completed in the sprint.**
- In many cases, your customers will understand their additional needs more fully after seeing the demonstrations and will identify and discuss the changes that they want to see.
- Based on this meeting, some tasks/user stories will be accepted as complete. Incomplete tasks/user stories will remain in the product backlog, and new tasks/user stories will be added to the product backlog.

Sprint Review Meeting

YouTube ⏰ 13min

http://scrumtrainingseries.com/SprintReviewMeeting

Using DevOps to create/update the Backlog



https://docs.microsoft.com/en-us/azure/devops/boards/backlogs/create-your-backlog?view=azure-devops&tabs=agile-process

Sprint Planning

Hans-Petter Halvorsen

Table of Contents

Sprint Planning

- Have a Sprint Planning Meeting within the Team
- Move selected Items from the “Product Backlog” to the “Sprint Backlog” (“Beta iteration”)
- Both the “Product Backlog” and the “Sprint Backlog” should be created in Azure DevOps

See Next Slides for more details...

Sprint Planning Meeting

YouTube ⏰ 13min

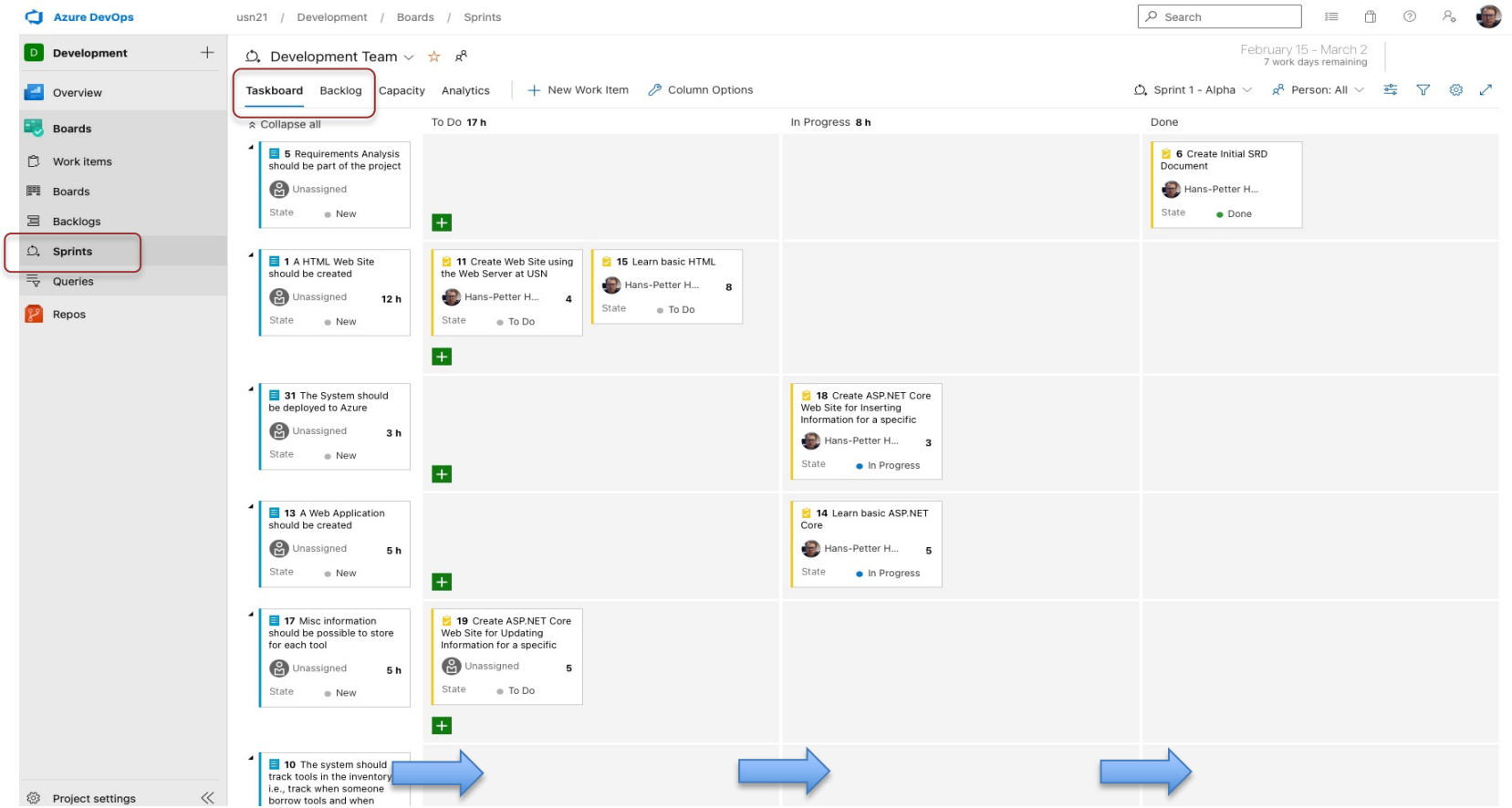
http://scrumtrainingseries.com/SprintPlanningMeeting

Purpose with this Meeting:
Planning what to do in the next Sprint (Iteration)

Sprint Planning Meeting

- The pupose with the Sprint Planning is to discuss and select the work items for the next Sprint.
- You select work items from the Product Backlog into the next Sprint Backlog.
- Make sure to set the Deadline for the next Sprint as well.

Sprint Backlog and Taskboard



Implementation

Hans-Petter Halvorsen

Table of Contents

Implementation

- Start Implementing/Coding
- If you haven't started the coding already, now its the time!!
  - Do work according to the Product/Sprint Backlogs
- The next 4 weeks our main focus will be Implementation/Coding of our System

Hans-Petter Halvorsen

University of South-Eastern Norway

www.usn.no

E-mail: hans.p.halvorsen@usn.no

Web: https://www.halvorsen.blog