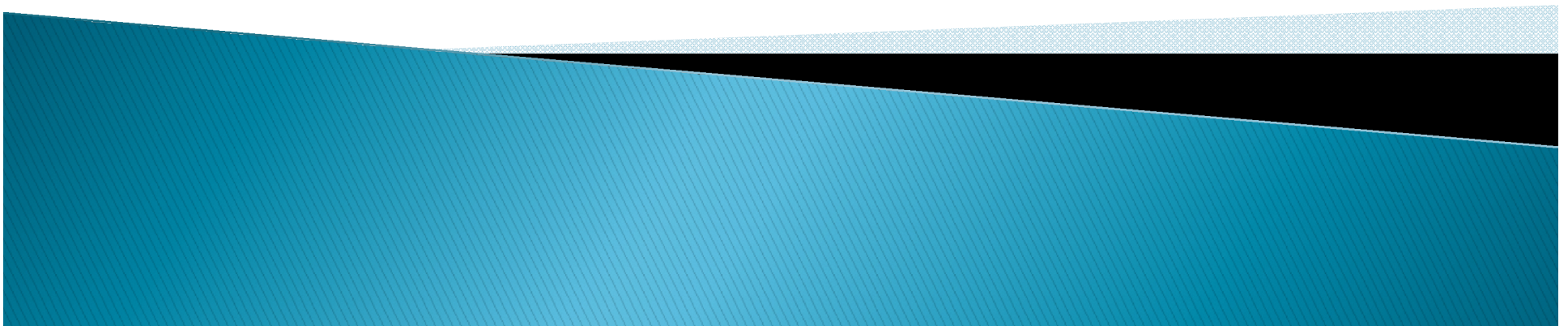


UNIT II

Dynamic HTML and web designing

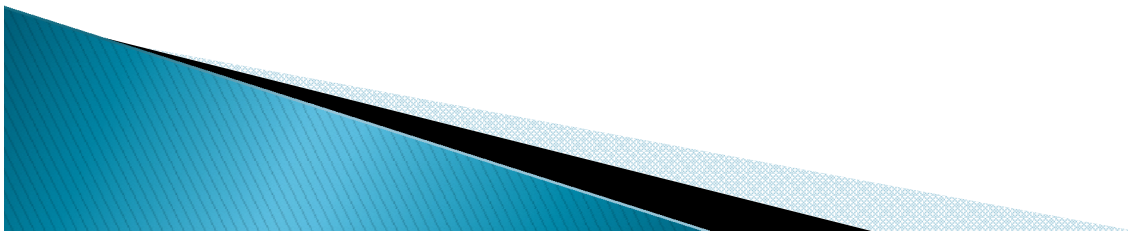
Lecture 1 & Assignment 1

HTML



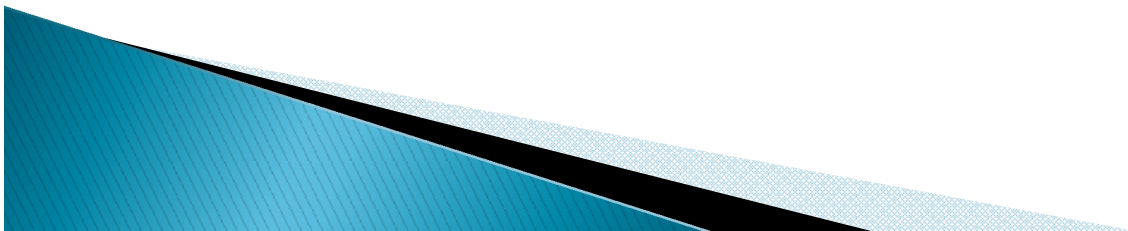
HTML : Introduction

- ▶ HTML is a language for describing web pages.
- ▶ HTML stands for **H**yper **T**ext **M**arkup Language
- ▶ HTML is not a programming language, it is a **markup language**
- ▶ A markup language is a set of **markup tags**
- ▶ HTML uses **markup tags** to describe web pages



HTML document

- ▶ HTML document contains markup tags
`<H1> Example </H1>`
- ▶ tags are case insensitive
`<H1>` or `<h1>`
- ▶ tag attributes may be case sensitive
e.g. filenames
- ▶ tags are (usually) paired to denote the start and end of an element
`<H1> Example </H1>`



HTML contd. In detail:Block-level elements

Structure Tags

Function	Start Tag	Attributes	End Tag
HTML File	<html>	None	</html>
File Header	<head>	None	</head>
File Title	<title>	None	</title>
Comments	<!--	The comments go between the start and end tags. Put a space between the - and the comments.	-->
Body	<body>	Background="filename" bgcolor="color value" text="color value" link="color value" vlink="color value"	</body>
Division	<div>	Align="right/left/center" style="property:value;" class="classname"	</div>
Span (inline)		Style="property:value;" class="classname"	

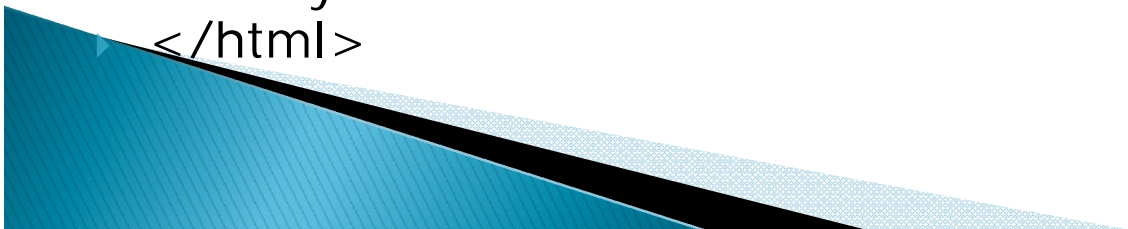
BASIC TEXT TAGS

Basic Text Tags

Function	Start Tag	Attributes	End Tag
Line Break	 	Clear="left/right/all"	</br> or
Paragraph	<p>	Align="center/right"	</p>
Bold		None	
Italic	<i>	None	</i>
Typewriter Text	<tt>	None	</tt>
Headline	<h1-6>	Align="center/right"	</h1-6>
Font		Face="name, name" size="+/-value/fixed size" color="color value" Note: the font tag is being phased out in favor of CSS styles.	
Horizontal Rule	<hr>	Size="XX" width="XX/XX%" noshade	</hr> or <hr/ >
Block Quote	<blockquote> </blockquote>	None	</blockquote>
Division	<div>	Align="left/center/right"	</div>

Example...

- ▶ `<html>`
- ▶ `<head>`
- ▶ `<title>Education</title>`
- ▶ `<body bgcolor="yellow" text="red" link="green" vlink="blue">`
- ▶ `<!-- This is my second page -- >`
- ▶ `<div align="center">HTML is interesting</div>
`
- ▶ `<hr size="3" noshade size="60%">`
- ▶ `<!-- hr tag need not be closed -- >`
- ▶ `<div align="right"><i>HTML is very easy</i></div>`
- ▶ `<hr noshade >`
- ▶ `<p><div align="left"><i>I will become expert in HTML</i></div>`
- ▶ `HTML is easy to understand.`
- ▶ `<blockquote>short and long time goals should be clear.
`
- ▶ `The content of the page should be given importance.`
- ▶ `</blockquote>`
- ▶ `</body>`
- ▶ `</html>`



Result..



Lists

- ▶ bulleted list

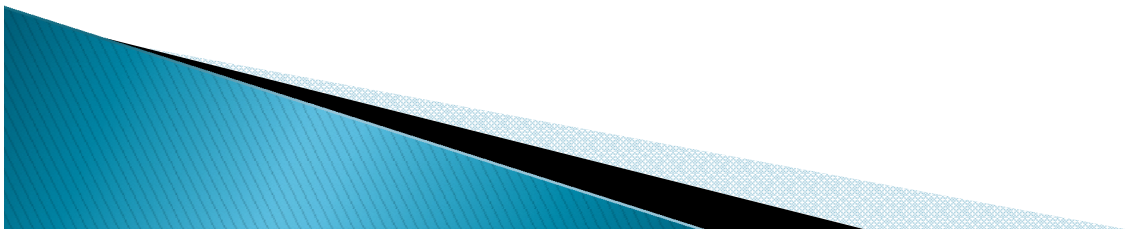
```
<UL>
```

```
<LI> list element </LI>
```

```
...
```

```
</UL>
```

- ▶ numbered list -
- ▶ definition list - <DL>, <DT>, <DD>
- ▶ ...



Hyperlinks

▶ ** ... **

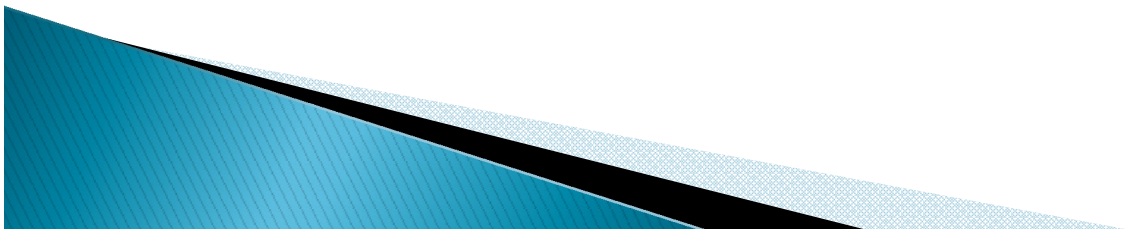
- hyperlink to any type of resource (not only HTML)
- other protocols can be used (not only HTTP)
- resource is identified with URL

◦ examples:

```
<A HREF="http://www.carnet.hr">CARNet</A>
```

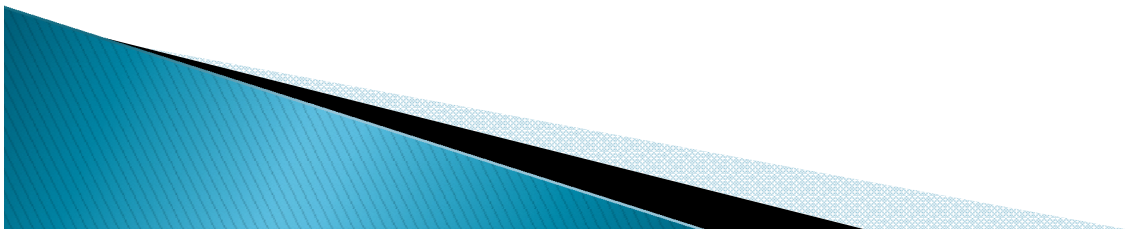
```
<A HREF="file.txt">text</A>
```

- to deal with (display) resource browser may launch helper application



Anchors

- ▶ ** ... **
 - set up an anchor (point in text to be linked to)
 - is referenced with **file_name#anchor_name**
 - example of anchor:
`text`
 - example of link to anchor:
`text`



Inline images

▶ ``

- some attributes:

`SRC="url"`

`ALT="text"`

`ALIGN="align_value"`

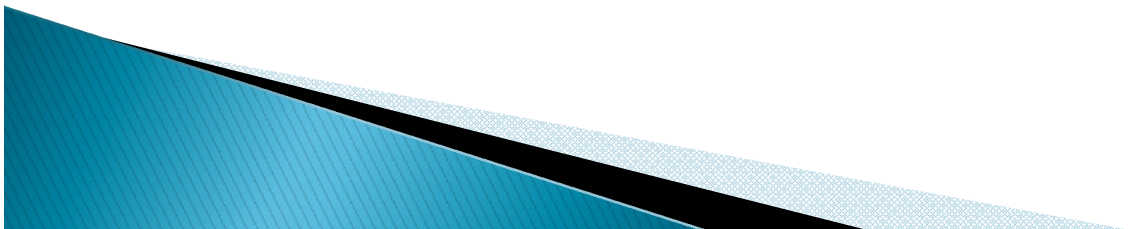
`BORDER="n"`

`WIDTH="n"`

`HEIGHT="n"`

- example

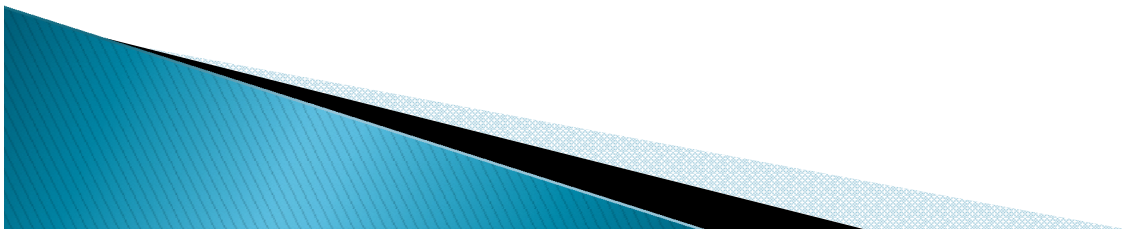
``



Tables

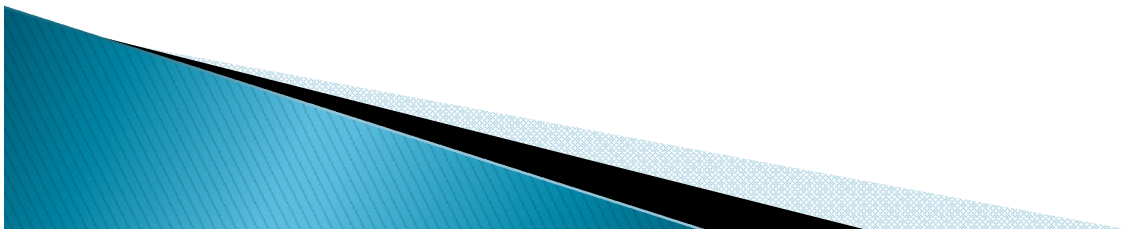
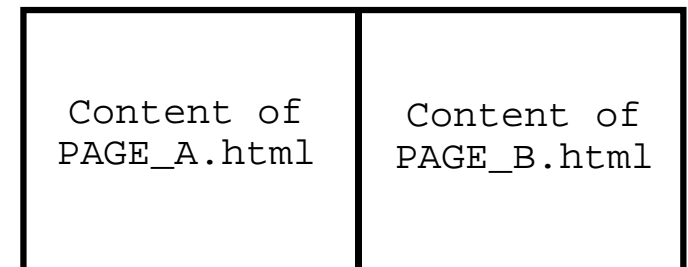
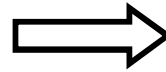
```
<TABLE attribute="value" ...>  
<TR attribute="value" ...>  
<TD attribute="value" ...>  
text - data cell of table  
</TD>  
...  
</TR>  
...  
</TABLE>
```

table
row



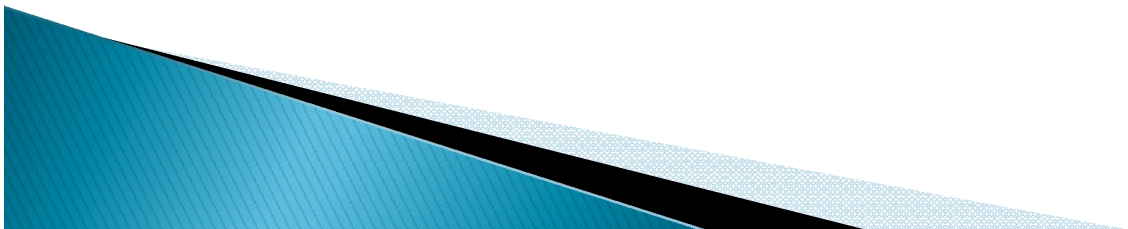
Frames

```
<HTML>  
<HEAD>  
<TITLE>Frame Page</TITLE>  
</HEAD>  
<FRAMESET COLS="50%,50%">  
<FRAME SRC="PAGE_A.html">  
<FRAME SRC="PAGE_B.html">  
</FRAMESET>  
</HTML>
```



Fonts, colors, ...

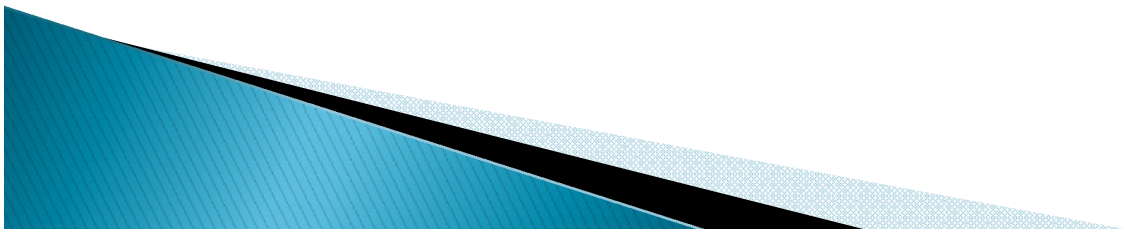
- ▶ fonts
 - `...`
- ▶ special chars
 - `<`, `>`, `"`, `@`, national characters (e.g. Č, Ž, Š ...)
 - `&#code;` OR `&token;`
- ▶ colors
 - attribute (tags: BODY, FONT, ...)
 - RGB, hex notation
 - `#rrggbb`
- ▶ multimedia (EMBED, BGSOUND, ...)



Additional features

- ▶ downloadable fonts
- ▶ Style Sheets
- ▶ active Web pages
- ▶ Metadata
- ▶ ...

- ▶ BE AWARE of constant development:
 - W3C - <http://www.w3.org/>
 - HWG - <http://www.hwg.org/>
 - IWA - <http://www.iwanet.org/member/resources/>



Text-level elements: marking up for style & structure

Logical markup

- **EM** - Emphasized text
- **STRONG** - Strongly emphasized
- **DFN** - Definition of a term
- **CODE** - Code fragment
- **SAMP** - Sample text
- **KBD** - Keyboard input
- **VAR** - Variable
- **CITE** - Short citation

Special markup

- **A** - Anchor
- **BASEFONT** - Default font size
- **IMG** - Image
- **APPLET** - Java applet
 - **PARAM** - Parameters for Java applet
- **FONT** - Font modification
- **BR** - Line break
- **MAP** - Client-side imagemap
 - **AREA** - Hotzone in imagemap

Physical markup

- **TT** - Teletype
- **I** - Italics
- **B** - Bold
- **U** - Underline
- **STRIKE** - Strikeout
- **BIG** - Larger text
- **SMALL** - Smaller text
- **SUB** - Subscript
- **SUP** - Superscript

Forms

- **INPUT** - Input field, button, etc.
- **SELECT** - Selection list
 - **OPTION** - Selection list option
- **TEXTAREA** - Input area

Tables

- **CAPTION** - Table caption
- **TR** - Table row
- **TH** - Header cell
- **TD** - Table cell

LIST TAGS

List Tags

Function	Start Tag	Attributes	End Tag
Unordered List		type="disc/circle/square"	
Ordered List		type="I/A/1/a/i" start="value to start counting at"	
List Item		type=all ul and ol options	
Definiton List	<dl>	none	</dl>
Definition List Item	<dt>	none	</dt>
Definition List Definition	<dd>	none	</dd>



List Elements

Headings

- **H1** - Level 1 header
- **H2** - Level 2 header
- **H3** - Level 3 header
- **H4** - Level 4 header
- **H5** - Level 5 header
- **H6** - Level 6 header

Text containers

- **P** - Paragraph
- **PRE** - Preformatted text
- **BLOCKQUOTE** - Large quotation
- **ADDRESS** - Address information

Lists

- **UL** - Unordered list
- **OL** - Ordered list
- **DIR** - Directory list
- **MENU** - Menu item list
- **LI** - List item
- **DL** - Definition list
 - **DT** - Definition term
 - **DD** - Definition

Others

- **DIV** - Logical division
- **CENTER** - Centered division
- **FORM** - Input form
- **HR** - Horizontal rule
- **TABLE** - Tables



LINK TAGS

Link Tags

Function	Start Tag	Attributes	End Tag
Anchor Link	<code><a></code>	<code>href="filename"</code> <code>target="windowname"</code>	<code></code>
Anchor Mark	<code><a></code>	<code>name="markname"</code>	<code></code>

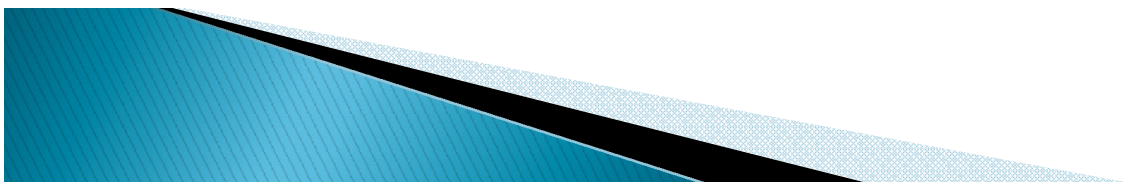


IMAGE TAGS

Image Tags

Function	Start Tag	Attributes	End Tag
Insert Image		<code>src="filename"</code> <code>align="left/right"</code> <code>width="XXX"</code> <code>height="XXX"</code> <code>alt="text that describes image"</code> <code>ISMAP</code> <code>USEMAP=" #mapname "</code>	



Table Tags

Table Tags

Function	Start Tag	Attributes	End Tag
Table	<code><table></code>	<code>border="X"</code> <code>width="XX/X%"</code> <code>cellspacing="XX"</code> <code>cellpadding="XX"</code> <code>bgcolor="color value"</code> <code>background="filename"</code>	<code></table></code>
Table Row	<code><tr></code>	<code>align="left/center/right"</code> <code>valign="top/middle/bottom"</code> <code>bgcolor="color value"</code>	<code></tr></code>
Table Data	<code><td></code>	<code>align="left/center/right"</code> <code>valign="top/middle/bottom"</code> <code>width=X</code> <code>nowrap</code> <code>colspan="X"</code> <code>rowspan="X"</code> <code>bgcolor="color value"</code>	<code></td></code>
Table Header	<code><th></code>	<code>align="left/center/right"</code> <code>valign="top/middle/bottom"</code> <code>width=X</code> <code>nowrap</code> <code>colspan="X"</code> <code>rowspan="X"</code> <code>bgcolor="color value"</code>	<code></th></code>
Caption	<code><caption></code>	<code>align="left/center/right"</code> <code>valign="top/middle/bottom"</code>	<code></caption></code>

Example..

```
<TABLE border=1 bordercolor=red>
<CAPTION>Areas of the Nordic countries, in sq km</CAPTION>
<TR><TH>Country</TH> <TH>Total area</TH> <TH>Land area</TH>
<TR><TH>Denmark</TH> <TD ALIGN=RIGHT> 43,070 </TD><TD
ALIGN=RIGHT> 42,370</TR>
<TR><TH>Finland</TH><TD ALIGN=RIGHT>337,030 </TD><TD
ALIGN=RIGHT>305,470</TR>
<TR><TH>Iceland</TH> <TD ALIGN=RIGHT>103,000 </TD><TD
ALIGN=RIGHT>100,250</TR>
<TR><TH>Norway</TH> <TD ALIGN=RIGHT>324,220 </TD><TD
ALIGN=RIGHT>307,860</TR>
<TR><TH>Sweden</TH> <TD ALIGN=RIGHT>449,964 </TD><TD
ALIGN=RIGHT>410,928</TR>
</TABLE>
</body>
</html>
```

Education - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail

Address C:\WINNT\Profiles\dhanaraja\Desktop\raj.htm Go Links

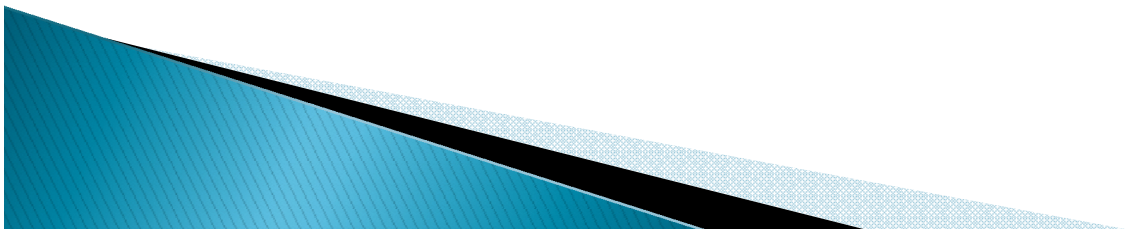
Areas of the Nordic countries, in
sq km

Country	Total area	Land area
Denmark	43,070	42,370
Finland	337,030	305,470
Iceland	103,000	100,250
Norway	324,220	307,860
Sweden	449,964	410,928

Done My Computer

Advantages of HTML

- ▶ Easy to use
- ▶ Loose syntax (although, being too flexible will not comply with standards)
- ▶ Supported on almost every browser, if not all browsers.
- ▶ Widely used; established on almost every website, if not all websites.
- ▶ Very similar to XML syntax, which is increasingly used for data storage Free - You need not buy any software
- ▶ Easy to learn & code even for novice programmers



Disadvantages of HTML

- ▶ It cannot produce dynamic output alone, since it is a static language
- ▶ Sometimes, the structuring of HTML documents is hard to grasp
- ▶ You have to keep up with deprecated tags, and make sure not to use them
- ▶ Deprecated tags appear because another language that works with HTML has replaced the original work of the tag; thus the other language needs to be learned (most of the time, it is CSS)
- ▶ Security features offered by HTML are limited

