

HTML 5 – Tables, Forms and Frames

Trần Anh Tuấn A
tuantran261083@gmail.com

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Contents



- ◆ HTML Tables
 - Simple Tables
 - Complete HTML 5 Tables
 - Data cells and Header cells
- ◆ Nested Tables
- ◆ Complex tables
 - Cells Width
 - Cell Spacing and Padding
 - Column and Row Span

Contents (2)

- ◆ **HTML Forms**

- **Form Fields and Fieldsets**
- **Text boxes**
- **Buttons**
- **Checkboxes and Radio Buttons**
- **Select fields**
- **Hidden fields**
- **Sliders and Spinboxes**
- **Validation fields**



Contents (3)

- ◆ HTML Frames
 - Frame and Noframe tags
 - IFrames



HTML Tables

US time	European date (D/M/Y) & time	Y-M-D date & time	Dollar	Chinese money	IP addresses	Names	Numbers
29/10/1965		83-03-24		YMB 4	98.176.35.80		26.32 E +03
Fri Mar 22 21:48:49 UTC+0200 1957		1967-08-22 06:07:16 PM		YMB -81.38	162.117.253.34	dyse chidi	
Thu, 14 Feb 2002 04:24:20 UTC	06/07/99 06:46:01 AM	81-02-04 09:09:54 AM		YMB -108.83	122.205.50.6	bochai dychai	-191.45E-05
Monday, May 30, 1994 4:47:31 PM	06/09/05 05:11:16 AM			YMB 33.16		dydy balie	-131.20E+01
09/28/2000	24/11/1957		\$-38.77	YMB 112.42	15.192.151.209		
		97-08-13 00:01:33 AM	\$14.5	YMB -1.75	99.93.147.150	dychai tonchai	-187.28E-05
Mon, 29 Oct 1979 00:44:03 UTC		87-10-16	\$14.66	YMB 61.14		chite malie	- 125.19 E -03
Sat, 9 Jan 1982 05:45:06 UTC	04/06/68	74-10-20	\$20.47		121.169.225.22	dyma bama	138.11E+02
04/05/75		2000-03-20	\$68.84	YMB 88.19	239.133.227.68	made liete	195.44 E +03
Monday, July 15, 2002 1:05:02 AM	01/02/1961 09:40:16 AM		\$97.9	YMB 44.28	223.66.228.116	mava sete	-107
this is footer	row	number	ONE!	adsf	adsf	adsf	adsf

File Edit Format View Help

```
<html>
<head>
<title>How To Create HTML Tables</title>
</head>
<body>
<table border=1 cellspacing=0 cellpadding=0>
<tr>
<td width=110 valign=top>
<br><upper left corner>
</td>
<td width=110 valign=top>
<br><upper right corner>
</td>
</tr>
<tr>
<td width=110 valign=top>
<br><left center cell>
</td>
<td width=110 valign=top>
<br><right center cell>
</td>
</tr>
<tr>
<td width=110 valign=top>
<br><lower left corner>
</td>
<td width=110 valign=top>
<br><lower right corner>
</td>
</tr>
</table>
</body>
</html>
```

HTML Tables

- ◆ Tables represent tabular data
 - A table consists of one or several rows
 - Each row has one or more columns
- ◆ Tables comprised of several core tags:
`<table></table>`: begin / end the table
`<tr></tr>`: create a table row
`<td></td>`: create tabular data (cell)
- ◆ Tables should not be used for layout. Use CSS floats and positioning styles instead

Simple HTML Tables – Example

```
<table cellspacing="0" cellpadding="5">
  <tr>
    <td></td>
    <td><a href="lecture1.ppt">Lecture 1</a></td>
  </tr>
  <tr>
    <td></td>
    <td><a href="lecture2.ppt">Lecture 2</a></td>
  </tr>
  <tr>
    <td></td>
    <td><a href="lecture2-demos.zip">
      Lecture 2 - Demos</a></td>
  </tr>
</table>
```

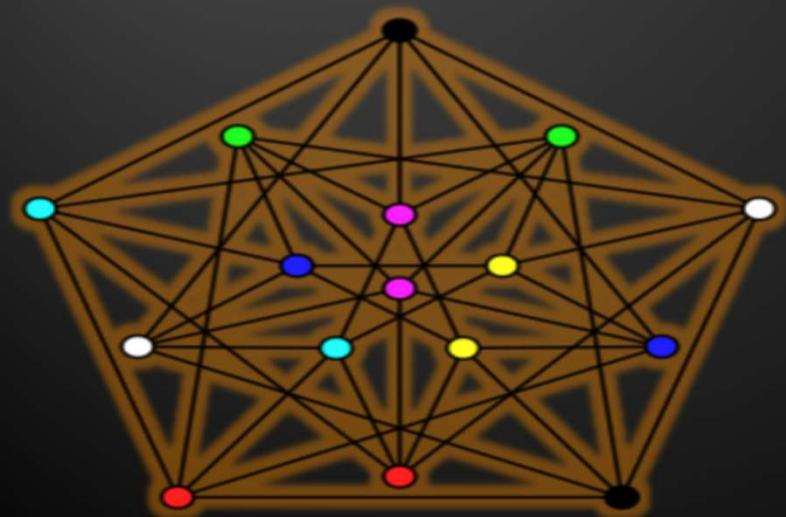
Data Cells and Header Cells

- ◆ Two kinds of cells in HTML 5 tables
 - Data **cells** – containing the table data
 - Header **cells** – used for the column names or some more important cells in a table
- ◆ Why two kinds of cells?
 - Used to semantically separate the cells

```
<tr>
  <th>Full name</th> <th> Mark </th>
</tr>
<tr>
  <td>Doncho Minkov</td> <td>Very good 5</td>
</tr>
<tr>
  <td>Georgi Georgiev</td> <td>Exellent 6</td>
</tr>
```

Complete HTML 5 Tables

With Header, Footer
and Body



Complete HTML Tables

- ◆ Table rows split into three semantic sections: header, body and footer
 - **<thead>** denotes table header and contains **<th>** elements, instead of **<td>** elements
 - **<tbody>** denotes collection of table rows that contain the very data
 - **<tfoot>** denotes table footer but comes BEFORE the **<tbody>** tag
 - **<colgroup>** and **<col>** define columns (used to set column widths)

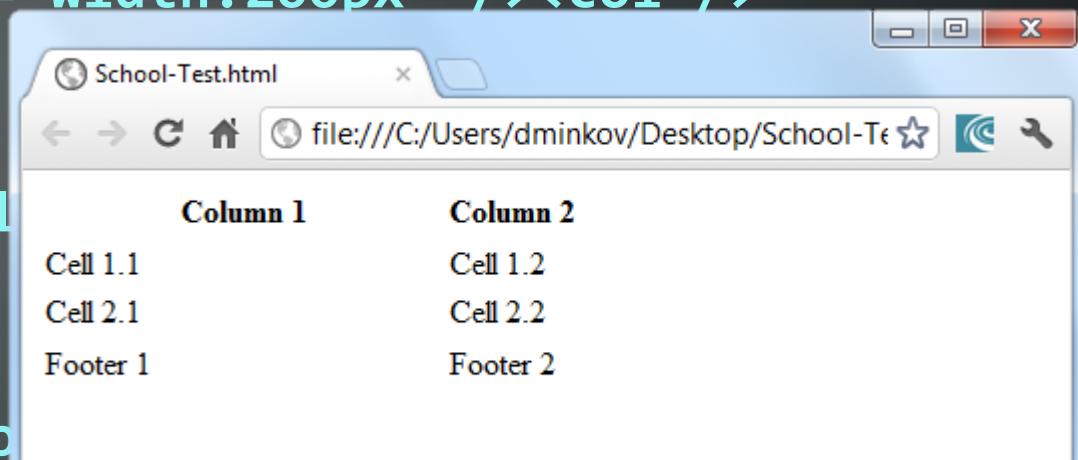
Complete HTML Table: Example

```
<table>
  <colgroup>           columns
    <col style="width:100px" /><col />
  </colgroup>
  <thead>             header
    <tr><th>Column 1</th><th>Column 2</th></tr>
  </thead>
  <tfoot>             footer
    <tr><td>Footer 1</td><td>Footer 2</td></tr>
  <tfoot>
  <tbody>             Last comes the body (data)
    <tr><td>Cell 1.1</td><td>Cell 1.2</td></tr>
    <tr><td>Cell 2.1</td><td>Cell 2.2</td></tr>
  </tbody>
</table>
```

Complete HTML Table: Example (2)

```
<table>
  <colgroup>
    <col style="width:200px" /><col />
  </colgroup>
  <thead>
    <tr><th>Col
  </thead>
  <tfoot>
    <tr><td>Footer 1
  </tfoot>
  <tbody>
    <tr><td>Cell 1.1
    <tr><td>Cell 2.1
    <tr><td>Footer 2
  </tbody>
</table>
```

table-full.html



Column 1	Column 2
Cell 1.1	Cell 1.2
Cell 2.1	Cell 2.2
Footer 1	Footer 2

Although the footer is before the data in the code, it is displayed last

Nested Tables

Tables in Tables in Tables in Tables...

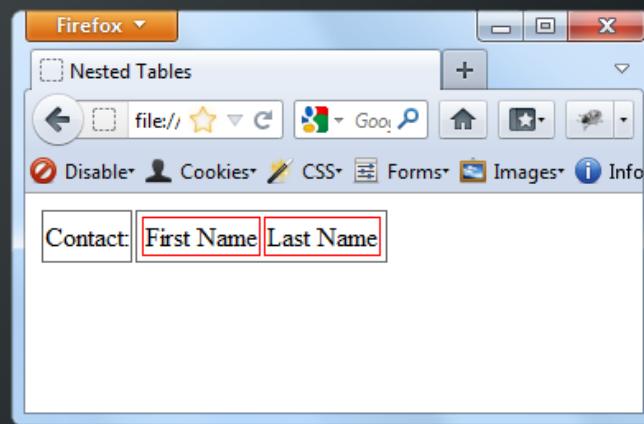


Nested Tables

- Table "cells" (`<td>`) can contain nested tables (tables within tables):

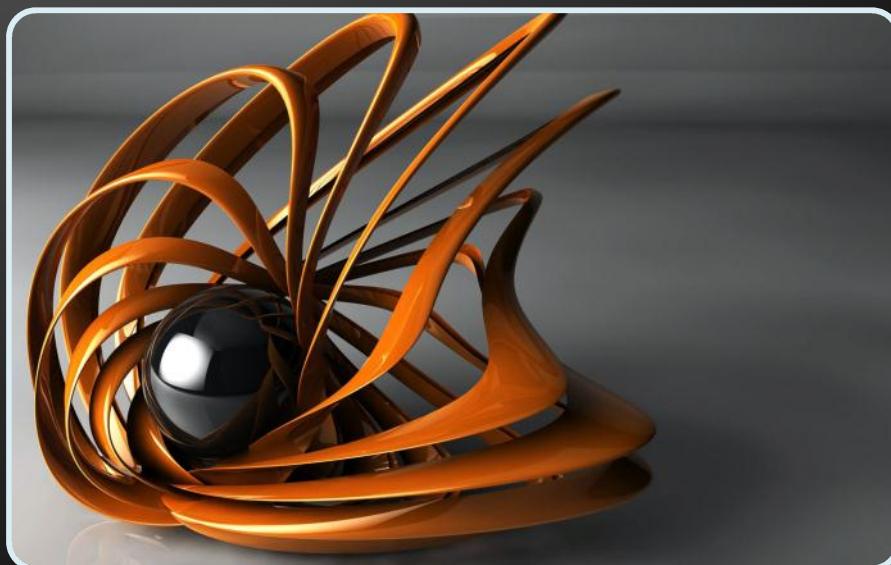
```
<table>
  <tr>
    <td>Contact:</td>
    <td>
      <table>
        <tr>
          <td>First Name</td>
          <td>Last Name</td>
        </tr>
      </table>
    </td>
  </tr>
</table>
```

nested-tables.html



Complex Tables

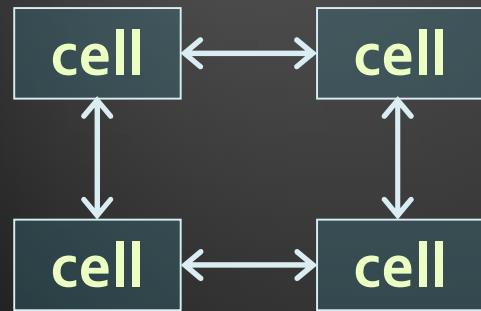
With Padding, Spacing and Stuff



Cell Spacing and Padding

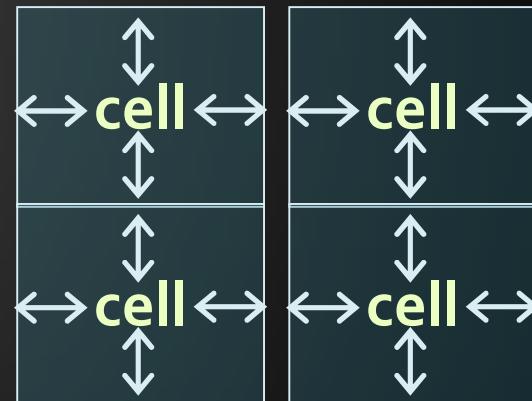
- ◆ Tables have two attributes related to space

- ◆ **cellspacing**



- ◆ Defines the empty space between cells

- ◆ **cellpadding**



- ◆ Defines the empty space around the cell content

Cell Spacing and Padding – Example

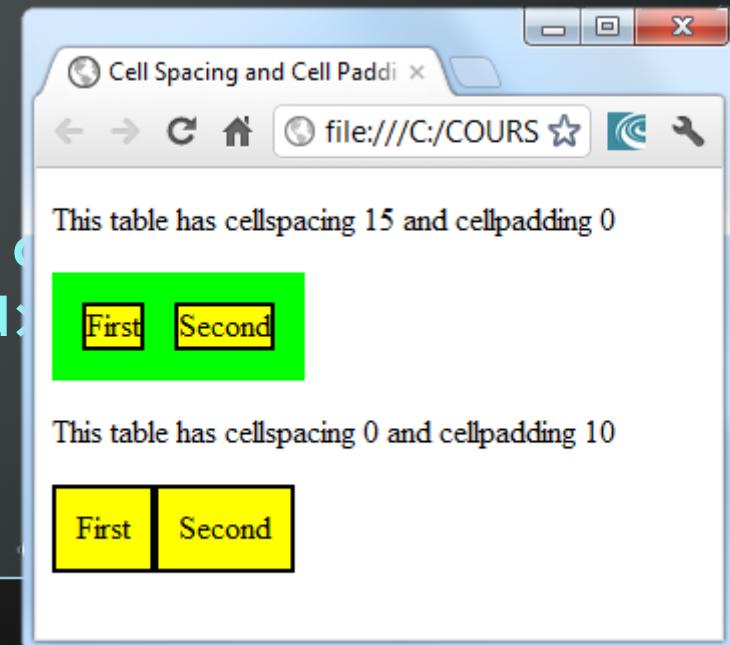
table-cells.html

```
<html>
  <head><title>Table Cells</title></head>
  <body>
    <table cellspacing="15" cellpadding="0">
      <tr><td>First</td>
      <td>Second</td></tr>
    </table>
    <br/>
    <table cellspacing="0" cellpadding="10">
      <tr><td>First</td><td>Second</td></tr>
    </table>
  </body>
</html>
```

Cell Spacing and Padding – Example (2)

table-cells.html

```
<html>
  <head><title>Table Cells</title></head>
  <body>
    <table cellspacing="15" cellpadding="0">
      <tr><td>First</td>
      <td>Second</td></tr>
    </table>
    <br/>
    <table cellspacing="0" cellpadding="10">
      <tr><td>First</td><td>Second</td>
    </tr>
  </table>
</body>
</html>
```



Row and Column Spans

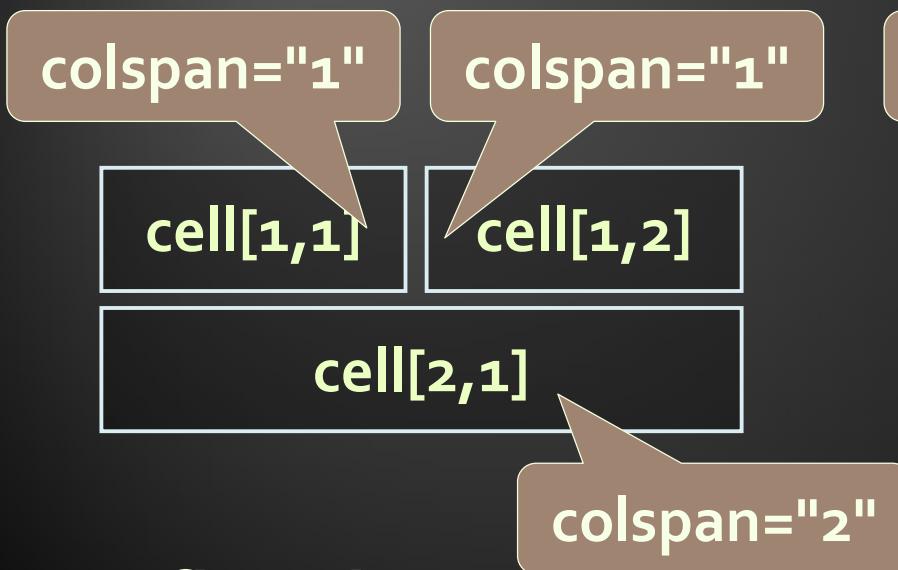
How to make a two-cells
column? Or row?



Column and Row Span

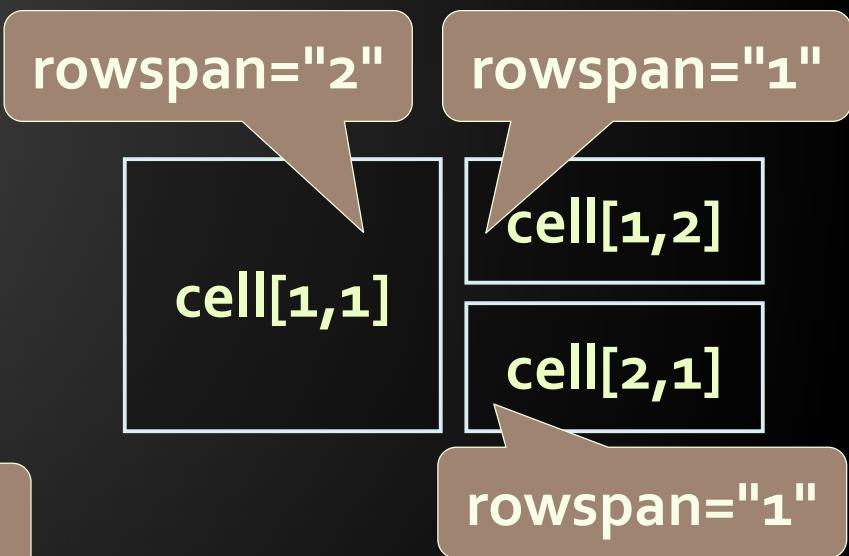
- ◆ Cells have two attributes related to merging

- ◆ **colspan**



- ◆ Defines how many columns the cell occupies

- ◆



- ◆ Defines how many rows the cell occupies

Column and Row Span – Example

table-colspan-rowspan.html

```
<table cellspacing="0">
  <tr class="1"><td>Cell[1,1]</td>
    <td colspan="2">Cell[2,1]</td></tr>
  <tr class="2"><td>Cell[1,2]</td>
    <td rowspan="2">Cell[2,2]</td>
    <td>Cell[3,2]</td></tr>
  <tr class="3"><td>Cell[1,3]</td>
    <td>Cell[2,3]</td></tr>
</table>
```

Column and Row Span – Example (2)

table-colspan-rowspan.html

```
<table cellspacing="0">
  <tr class="1"><td>Cell[1,1]</td>
    <td colspan="2">Cell[2,1]</td></tr>
  <tr class="2"><td>Cell[1,2]</td>
    <td rowspan="2">Cell[2,2]</td>
    <td>Cell[3,2]</td>
  <tr class="3">
    <td>Cell[1,3]</td>
  </tr>
</table>
```

Cell[1,1]	Cell[2,1]	
Cell[1,2]	Cell[2,2]	Cell[3,2]
Cell[1,3]		Cell[2,3]



HTML 5 Forms

Entering User Data from a Web Page

A Microsoft Internet Explorer window titled "Art School Form - Microsoft Internet Explorer". The form includes fields for First Name, Last Name, Age (with options for 1-17 yrs and over 18 yrs), and Address. There is also a section asking about art mediums with checkboxes for watercolors, acrylics, and pastels. A button at the bottom says "Send me an application now!"

First Name: _____

Last Name: _____

Age:

1-17 yrs
 over 18 yrs

I would like to learn to work with:

watercolors
 acrylics
 pastels

Send me an application now!

A Mozilla Firefox window titled "Registration Form - Mozilla Fi...". The form has fields for User name and Password, gender selection (Male/Female), and a checkbox for accepting terms. It includes "Register" and "Reset" buttons. A "Done" button is visible at the bottom right.

User name: _____

Password: _____

Gender: Male Female

Click to accept our terms:

Register Reset

Done

What are HTML 5 Forms?

- ◆ The primary method for gathering data from site visitors
- ◆ HTML 5 Forms can contain
 - Text fields for the user to type
 - Buttons for interactions like "Register", "Login", "Search"
 - Menus, Sliders, etc...
- ◆ Check Google, Yahoo, Facebook
 - Google search field is a simple Text field

How to Create Forms?

- ◆ Create a form block with

```
<form></form>
```

The "method" attribute tells how the form data should be sent – via GET or POST request

- ◆ Example:

```
<form name="myForm" method="post"  
action="path/to/some-script.php">  
...  
</form>
```

The "action" attribute tells where the form data should be sent

Text Fields

- ◆ Single-line text input fields:

```
<input type="text" name="FirstName" value="This  
is a text field" />
```

- ◆ Multi-line text input fields (**textarea**):

```
<textarea name="Comments">This is a multi-line  
text field</textarea>
```

- ◆ Password input – a text field which masks the entered text with * signs

```
<input type="password" name="pass" />
```

- ◆ Reset button – brings the form to its initial state

```
<input type="reset" name="resetBtn"  
value="Reset the form" />
```

- ◆ Submit button:

```
<input type="submit" value="Apply Now" />
```

- ◆ Image button – acts like submit but image is displayed and click coordinates are sent

```
<input type="image" src="submit.gif"  
name="submitBtn" alt="Submit" />
```

- ◆ Ordinary button – no default action, used with JS

```
<input type="button" value="click me" />
```

Checkboxes and Radio Buttons

- ◆ Checkboxes:

```
<input type="checkbox" name="fruit"  
value="apple" />
```

- ◆ Radio buttons:

```
<input type="radio" name="title" value="Mr." />
```

- ◆ Radio buttons can be grouped, allowing only one to be selected from a group:

```
<input type="radio" name="city" value="Lom" />  
<input type="radio" name="city" value="Ruse" />
```

Select Fields

- ◆ Dropdown menus:

```
<select name="gender">
  <option value="Value 1"
    selected="selected">Male</option>
  <option value="Value 2">Female</option>
  <option value="Value 3">Other</option>
</select>
```

- ◆ Multiple-choice menus

```
<select name="products" multiple="multiple">
  <option value="Value 1"
    selected="selected">keyboard</option>
  <option value="Value 2">mouse</option>
</select>
```

Hidden Fields

- ◆ Hidden fields contain invisible data

```
<input type="hidden" name="Account" value="This  
is a hidden text field" />
```

- Not shown to the user
- Used by JavaScript and server-side code
 - ViewState, SessionState, etc..

- ◆ Labels are used to associate an explanatory text to a form field using the field's ID.

```
<label for="fn">First Name</label>
<input type="text" id="fn" />
```

- ◆ Clicking on a label focuses its associated field (checkboxes are toggled, radio buttons are checked)
- ◆ Labels are both a usability and accessibility feature and are required in order to pass accessibility validation.

Fieldsets

- ◆ Fieldsets are used to enclose a group of related form fields:

```
<form method="post" action="form.aspx">
    <fieldset>
        <legend>Client Details</legend>
        <input type="text" id="Name" />
        <input type="text" id="Phone" />
    </fieldset>
    <fieldset>
        <legend>Order Details</legend>
        <input type="text" id="Quantity" />
        <textarea cols="40" rows="10"
                  id="Remarks"></textarea>
    </fieldset>
</form>
```

- ◆ The **<legend>** is the fieldset's title.

Sliders and Spinboxes

Lets make it spin



Range and Spinbox

- ◆ Restricts users to enter only numbers
 - Additional attributes min, max and step and value
 - Can become Spinbox or Slider, depending on the input type

```
<input type="range" min="0" max="100" />
<input type="number" min="0" max="100" />
```

- Have some differences on different browsers
- Sliders and Spinboxes do not work on Firefox
 - Shown as regular textboxes

Attributes from HTML 5

- ◆ Autocomplete

- The browser stores the previously typed values
 - Brings them back on a later visit on the same page

- ◆ Autofocus

- The field becomes on focus on page load

- ◆ Required

- The field is required to be filled/selected

Input Fields with Validation

- ◆ Email – provides a simple validation for email
 - Can be passed a pattern for validation
 - On a mobile device brings the email keyboard

```
<input type="email" required="true"  
pattern="[^ @]*@[^ @].[^ @]"/>
```

- ◆ URL – has validation for url
 - On a mobile device brings the url keyboard

```
<input type="url" required="true" />
```

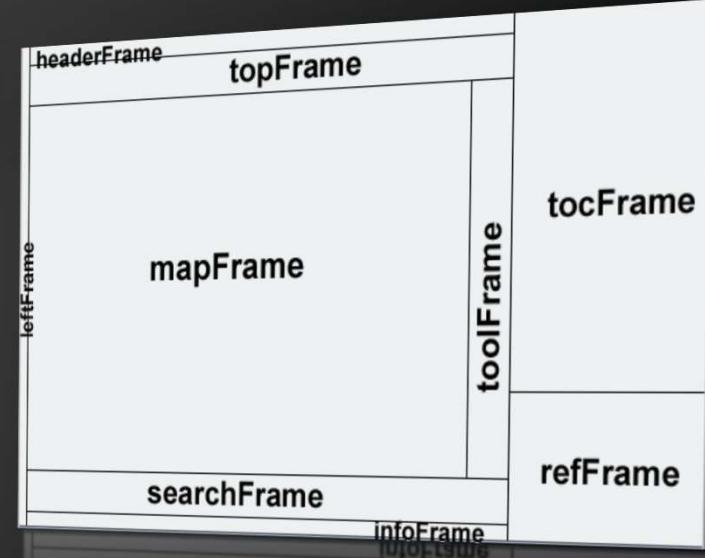
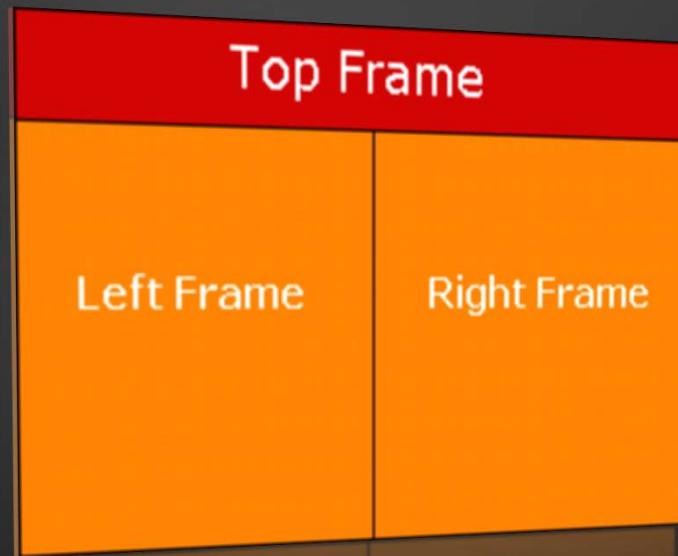
- ◆ Telephone
 - Brings the numbers keyboard

```
<input type="tel" required="true" />
```

TabIndex

- ◆ The tabindex HTML attribute controls the order in which form fields and hyperlinks are focused when repeatedly pressing the TAB key
 - tabindex="0" (zero) - "natural" order
 - If X < Y, then elements with tabindex="X" are iterated before elements with tabindex="Y"
 - Elements with negative tabindex are skipped, however, this is not defined in the standard

```
<input type="text" tabindex="10" />
```



HTML Frames

`<frameset>`, `<frame>` and `<iframe>`

HTML Frames

- ◆ Frames provide a way to show multiple HTML documents in a single Web page
- ◆ The page can be split into separate views (frames) horizontally and vertically
- ◆ Frames were popular in the early ages of HTML development, but now their usage is rejected
- ◆ Frames are not supported by all user agents (browsers, search engines, etc.)
 - ◆ A <noframes> element is used to provide content for non-compatible agents.

HTML Frames – Demo

frames.html

```
<html>  
  <head><title>Frames Example</title></head>  
  <frameset cols="180px,*,150px">  
    <frame src="left.html" />  
    <frame src="middle.html" />  
    <frame src="right.html" />  
  </frameset>  
</html>
```

- ◆ Note the target attribute applied to the elements in the left frame.

Inline Frames: <iframe>

- ♦ Inline frames provide a way to show one website inside another website:

iframe-demo.html

```
<iframe name="iframeGoogle" width="600" height="400"  
src="http://www.google.com" frameborder="yes"  
scrolling="yes"></iframe>
```

HTML 5 – Tables, Forms and Frames

Questions?

Homework

1. Create Web Pages like the following using tables:

Fresh Fruits

It has long been known that a diet that includes at least a few servings of fresh fruit every day will help keep you healthy, fit and trim.



Title goes here		A	B
	D	E	F
C	H	I	G
	K	L	M
N		O	J

2. Create a Web Page like the following using forms:

Member name : *req

Email : *req

School : *req

Homework (2)

3. Create a Web form
that looks like this
sample:

Last Name - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Back Forward Stop Home /sample-form.htm Go

Last Name	Nakov		
First Name	Svetlin		
Address	17 Hristo Botev Str. floor 3, apt. 12		
City	Kaspichan	State	
Zip/Postal Code	9325		
Country	Bulgaria		
Phone (country code, area code, number)	(+359) 88 - 8334343		
E-mail	nakov@kaspichan.org		
Birth date	Month 06 Day 14 Year (4 digit) 1980		
Gender	Male		
Starting date	<input checked="" type="radio"/> Spring 2006 <input type="radio"/> Summer 2006		
Comments/Questions	Please send me mor information about the lodging.		
<input type="button" value="Submit"/> <input type="button" value="Clear This Form"/>			

Done

Homework (3)

4. Create a Calculator-like table.

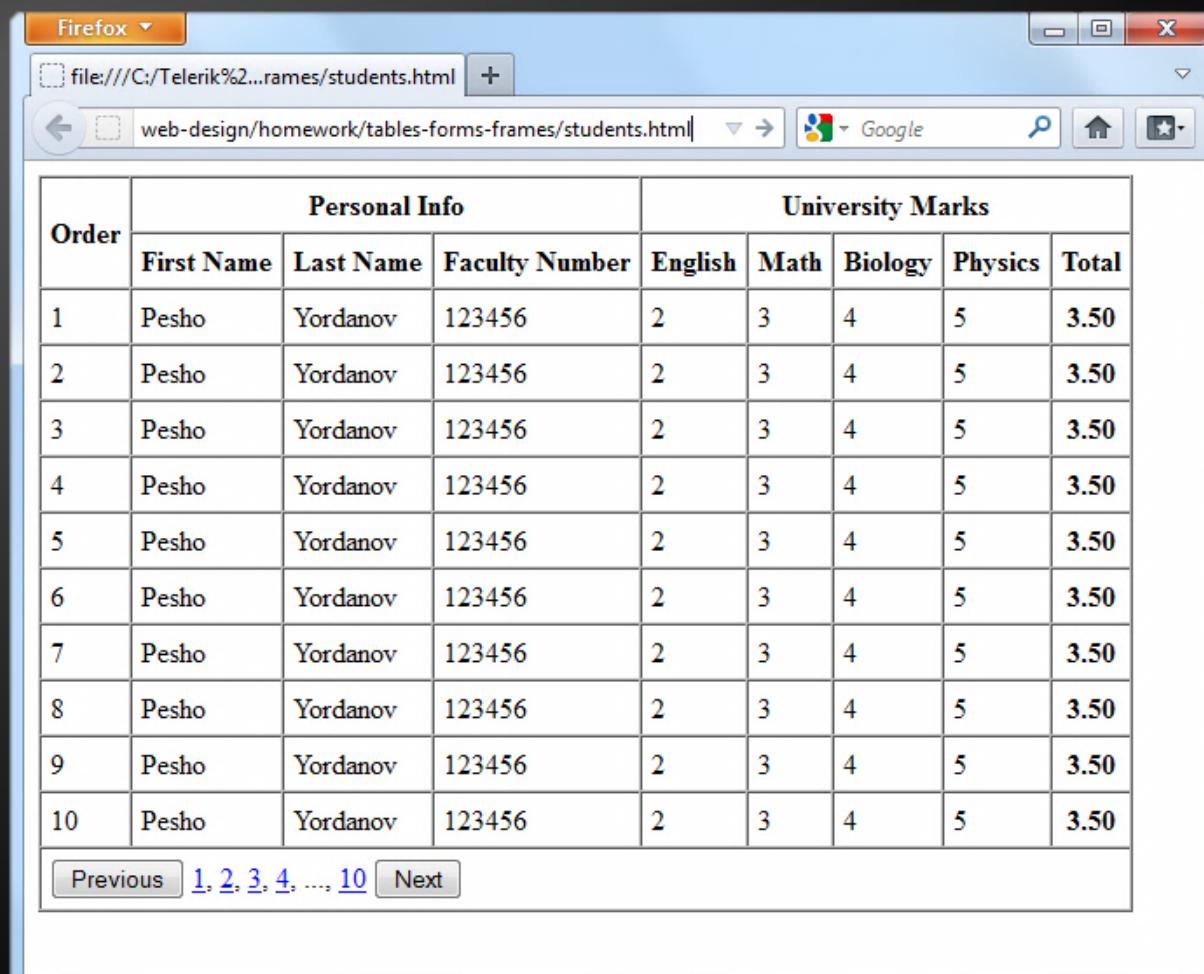
You should use a HTML 5 form for the Calculator

- Buttons for all the numbers and operators (+, -, etc.)
- Textbox for the result
- Do not make the same styles as the example.

123			
1	2	3	+
4	5	6	-
7	8	9	*
0	.		/

Homework (4)

5. Create the following using tables and forms:



The screenshot shows a Firefox browser window with the title bar "Firefox". The address bar displays "file:///C:/Telerik%20Web%20Designer/web-design/homework/tables-forms-frames/students.html". The main content area shows a table with student data. The table has two main sections: "Personal Info" and "University Marks".

Order	Personal Info			University Marks				
	First Name	Last Name	Faculty Number	English	Math	Biology	Physics	Total
1	Pesho	Yordanov	123456	2	3	4	5	3.50
2	Pesho	Yordanov	123456	2	3	4	5	3.50
3	Pesho	Yordanov	123456	2	3	4	5	3.50
4	Pesho	Yordanov	123456	2	3	4	5	3.50
5	Pesho	Yordanov	123456	2	3	4	5	3.50
6	Pesho	Yordanov	123456	2	3	4	5	3.50
7	Pesho	Yordanov	123456	2	3	4	5	3.50
8	Pesho	Yordanov	123456	2	3	4	5	3.50
9	Pesho	Yordanov	123456	2	3	4	5	3.50
10	Pesho	Yordanov	123456	2	3	4	5	3.50

At the bottom of the table, there are navigation buttons: "Previous", a page number "1, 2, 3, 4, ..., 10" (with "10" underlined), and "Next".

Homework (5)

6. Construct the following Grid component:

Drag a column header and drop it here to group by that column

ProductID	Product name	Unit price	Quantity per unit	Units in stock	Discontinued
1	Chai	\$18.00	10 boxes x 20 bags	39	<input type="checkbox"/>
2	Chang	\$19.00	24 - 12 oz bottles	17	<input type="checkbox"/>
3	Aniseed Syrup	\$10.00	12 - 550 ml bottles	13	<input type="checkbox"/>
4	Chef Anton's Cajun Seasoning	\$22.00	48 - 6 oz jars	53	<input type="checkbox"/>
5	Chef Anton's Gumbo Mix	\$21.35	36 boxes	0	<input checked="" type="checkbox"/>
6	Grandma's Boysenberry Spread	\$25.00	12 - 8 oz jars	120	<input type="checkbox"/>
7	Uncle Bob's Organic Dried Pears	\$30.00	12 - 1 lb pkgs.	15	<input type="checkbox"/>
8	Northwoods Cranberry Sauce	\$40.00	12 - 12 oz jars	6	<input type="checkbox"/>
9	Mishi Kobe Niku	\$97.00	18 - 500 g pkgs.	29	<input checked="" type="checkbox"/>
10	Ikura	\$31.00	12 - 200 ml jars	31	<input type="checkbox"/>

Page size: 10 335104 items in 33511 pages

- Try to make a HTML page, that looks just like the example
- Not required to style for the homework

Homework (7)

7. Create the following HTML 5 Page

- Hint: Use Fieldsets and Nested tables

[Apple](#) [Toshiba](#) [Lenovo](#) [Dell](#) [Asus](#) [Hacer](#) [HP](#)

 Apple MacBook Air 64GB SSD 2GB DDR 1300 USD Intel Core i5	 Apple MacBook Air 64GB SSD 2GB DDR 1300 USD Intel Core i5
 Apple MacBook Air 64GB SSD 2GB DDR 1300 USD Intel Core i5	 Apple MacBook Air 64GB SSD 2GB DDR 1300 USD Intel Core i5
 Apple MacBook Air 64GB SSD 2GB DDR 1300 USD Intel Core i5	 Apple MacBook Air 64GB SSD 2GB DDR 1300 USD Intel Core i5

Min price: 500 USD

Max price: 1500 USD

Min RAM: 4 GB

Max RAM: 16 GB