Web Basics – HTML5
Lesson 8. New Form Elements

Capgemini

Lesson Objectives

In this lesson you will learn about:
- Understand the new HTML form elements such as
  - date
  - number
  - range
  - email
  - search
  - datalist
- Understand audio, video, article tags

Introduction to HTML5 Enhanced Form Elements

A Form is one of the most basic and essential feature of any web site

HTML5 brings to the table several new input types, a total of 13

HTML5 introduces these data types via the
          <input type="_NEW_TYPE_HERE_"/> format

One of the key design decisions in HTML5 is backward compatibility

It provides automatic validity of the fields as per the format

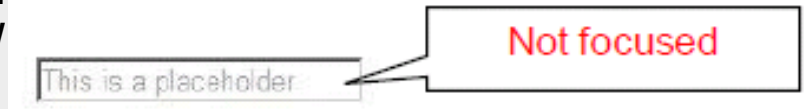The browser inspects the input type and if it finds that it is of a specific type

Placeholder

Place Holder - A placeholder is a textbox that hold a text in lighter shade when there is no value and not focused

Syntax is –

Th

```
<input id="first_name" placeholder="This is a placeholder">
```

Once the textbox gets focus, the text goes off and you shall input your ow

Not focused

This is a placeholder

focused

Firefox 3.7   Safari 4.0   Chrome 4.0   Opera 11   Android 2.2

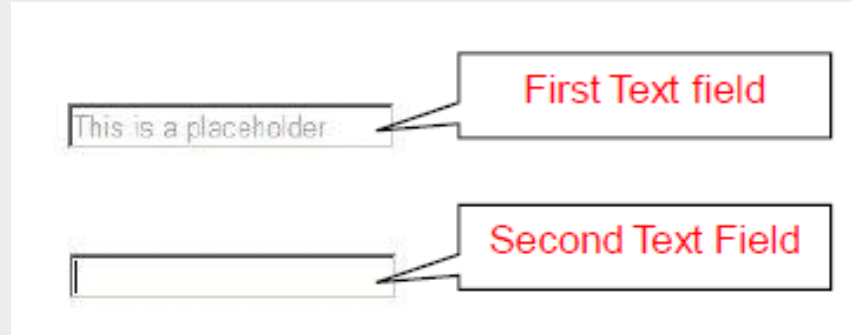# Auto Focus

Auto Focus - Autofocus is a Boolean attribute of form field that make browser set focus on it when a page is loaded

Syntax is –

<input id ="Text2" type="text" autofocus/>

This is a placeholder — First Text field

Second Text Field

Firefox 4   Safari 4.0   Chrome 3.0   Opera 10   Android 2.2

Required
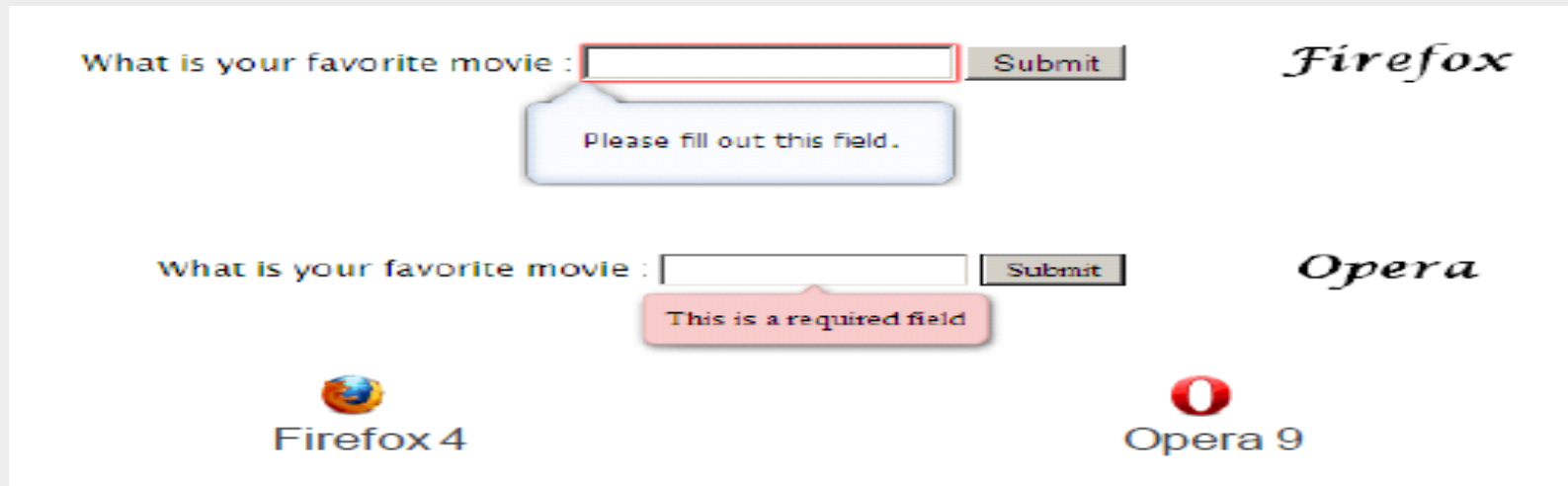
Required - A field with "required " attribute must be filled in with value before submission of a form

Syntax is –

The ⌐ <input name="name" type="text" required /> ⌐

value if a "Required field" is left blank upon submission

Pattern

Pattern - A value filled in the field must be checked against the regular expression specified in pattern attribute.

Syntax is –

Pincode: <input type="text" name="pin_code" pattern="[0-8]{6}"
Th title="666666">

a "field with Pattern attribute" is filled with invalid value upon submission

Pincode: 773   ×

Subm You must use this format: 666666

Email

Email - This field is used to check whether the string entered by the user is valid email id or not.
Syntax is –

Browser <input id="email" name="email" type="email" /> simple text field
This is how it looks like on form

Email: nettutsplus.com   Submit Form

nettutsplus.com is not a legal email address

Opera 10.63

Data List

Data List - Datalist is seems like type-ahead auto suggest textbox as you can see in Google search box
Syntax is –

```
<input id="country_name"
name="country_name" type="text"
list="country" />
<datalist id="country">
<option value="Australia">
<option value="Austria">
<option value="Algeria">
<option value="Andorra">
<option value="Angola">
</datalist>
```
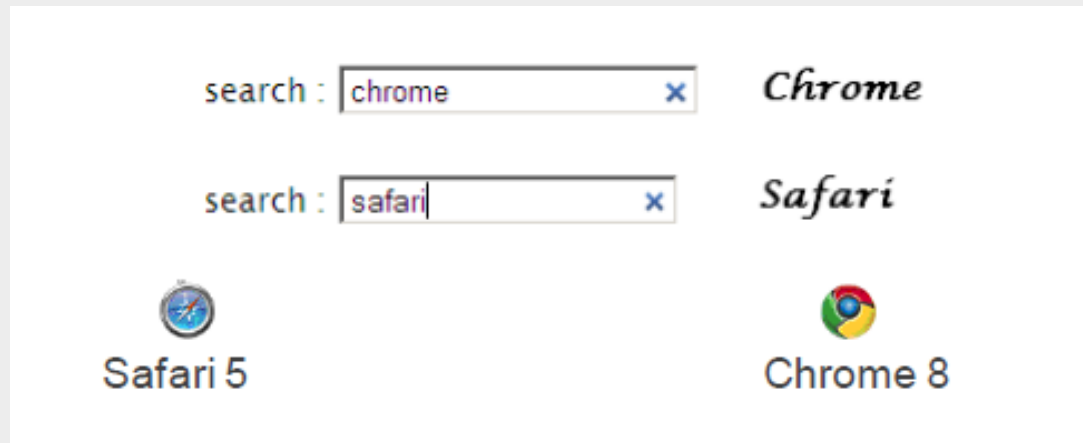
User input

Country : aus
Australia
Austria

Firefox 4   Opera 11

Search

Search - In HTML5, we can define a textbox as search box instead of a normal textbox
- Supported by Chrome 8 & Safari 5
- Syntax is

```
<input id="mysearch" type="search" />
```

Number

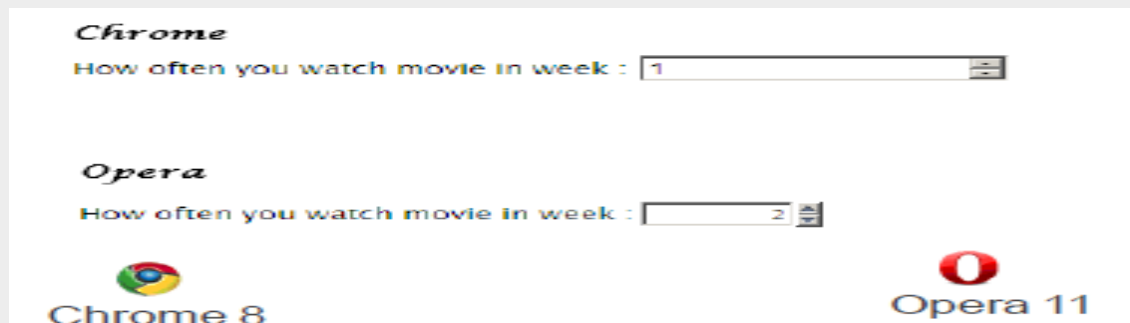Up and down button provided to increase and decrease the value.
Min and max parameters provided to limit the values.
Browser will treat it as simple textfield if it doesn't support this type.
Syntax is

Lim
```
<input id="movie" type="number" value="0"/>
```

```
< input id="user_lic" type="number" min="5" max="30" step="5" value =""/>
```

Chrome
How often you watch movie in week : [1   ]

Opera
How often you watch movie in week : [2]

Chrome 8   Opera 11

Range

Also known as slider
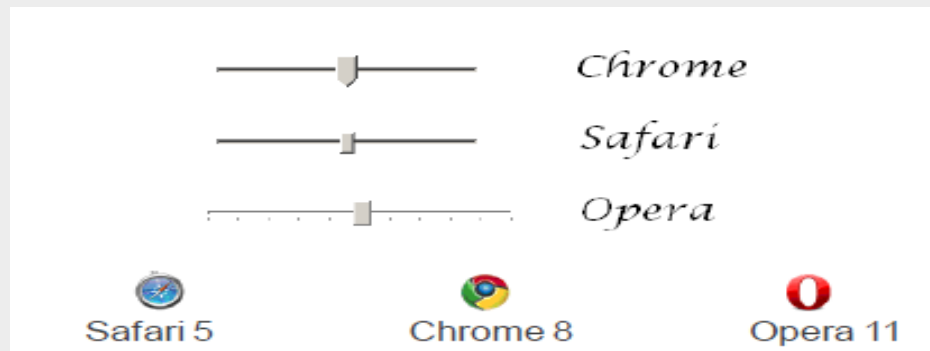Before HTML5, programmers used to write lines of code for range/slider
Easy to implement
Look and feel is different for different browser's
Browser will treat it as simple textfield if it doesn't support this type
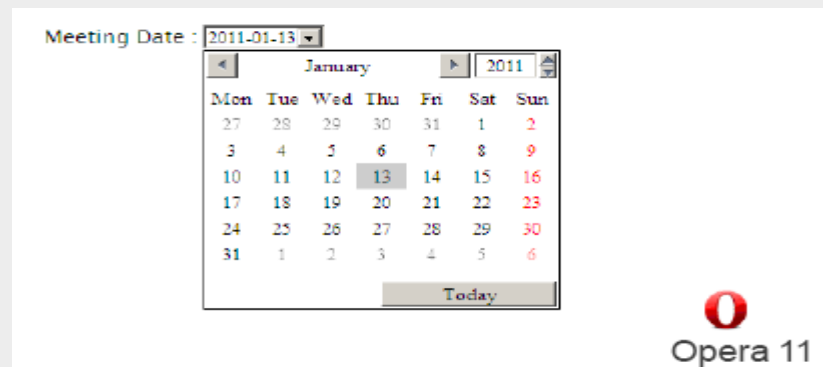Syntax

<input id="test" type="range"/>

Date

Date

- Important and mostly used element
- Simple to implement
- Before HTML5, programmers used to write lines of javascript code for date picker
- Input type for date:- date, week, month, time, datetime (gives UTC time), datetime-local (local time)

Syntax is

```
<input id="meeting" type="date" value=""/>
```

Audio

Audio - HTML5 is likely to put an end to audio plug-in such as Microsoft Windows Media player, Microsoft Silverlight , Apple QuickTime and the famous Adobe Flash

MIME type's - audio/mpeg, is optional but its always better to provide

Only .mp3, .wav, and .ogg (vorbis) formats are supported till date

If quick time player is not available, then safari won't support this tag

Other properties like auto play, loop, preload area also available

Syntax is –

```
<audio controls>
<source src="vincent.mp3" type="audio/mpeg"/>
<source src="vincent.ogg" type="audio/ogg"/>
</audio>
```
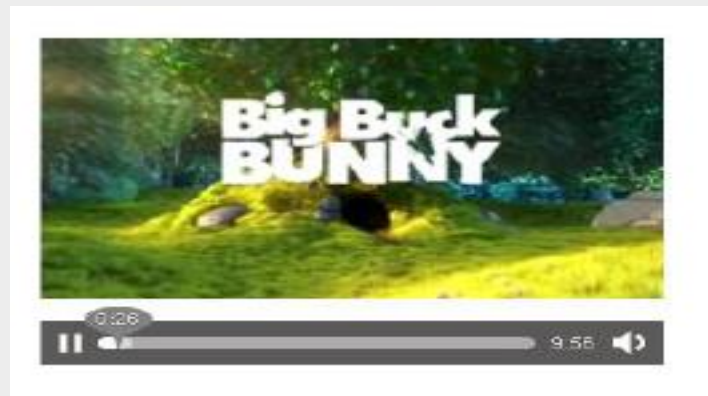
Video

Video – HTML5 video tag is exactly similar to audio but with few extra attributes

Attributes
- Width : Width of video area
- Height : Height of video area
- Poster : Still Image file projected on screen before video gets displayed

Syntax is –

<video src="http://.......ogv" controls width="300" height="250"></video>

Article

Article
- Represents independent component on page
- Separates itself form other elements on page
- Can be used most effectively in forum posts, blogs, magazine or newspaper etc.

Syntax is

```
<article>
<header>
<h1>The Very First Rule of Life</h1>
<p>Published : <time pubdate="pubdate">2008-10-08</time></p>
</header>
<p>If there's a microphone anywhere near you, assume it's hot and
sending whatever you're saying to the world. Seriously.</p>
<p>...</p>
<footer>
<a href="?comments=1">Show comments...</a>
</footer>
</article>
```

Demo

Demonstration on the use of new form elements

Modernizr

➤ **What's is Modernizr**

– It is (http://www.modernizr.com) an open source

– It's a JavaScript library that detects HTML5 & CSS3 features supported by Web Browser

➤ **How does this work?**

– Import JavaScript library in your HTML header

```
<script src="modernizr.min.js" type="text/javascript"></script>
```

```
if (Modernizr.audio)
{/* properties for browsers that support audio */}
else{
/* properties for browsers that does not support audio */
}
```
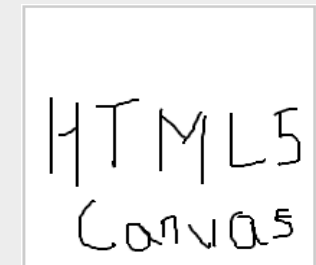
Automatically detects if audio is supported or not

Canvas

➤ **Why do you need Canvas?**

- A canvas is a rectangle in your web page within which you can use JavaScript to draw shapes

- Canvas can be used to represent something visually in your browser
  - Simple Diagrams
  - Fancy user interfaces
  - Animations
  - Charts and graphs
  - Embedded drawing applications
  - Working around CSS limitations

➤ **Syntax is**

```
<canvas id="myCanvas"></canvas>
<script type="text/javascript">
var canvas=document.getElementById('myCanvas');
var ctx=canvas.getContext('2d');
ctx.fillStyle='#FF0000';
ctx.fillRect(0,0,80,100);
</script>
```

HTML5 Training

HTML5
Canvas

Lab

Lab 8

In this lesson, you have learnt about:

- HTML5 introduces new and enhanced form elements those who caters to every need of modern Web Designing
- It also introduces a new JavaScript library, Modernzr, that helps you detect HTML5 feature capabilities of your websites

Review Question

Question 1: A _____ is a textbox that hold a text in lighter shade when there is no value and not focused

Question 2: A _____ is a JavaScript library that helps you add HTML5 capabilities to your websites