

Web Basics – HTML5

Lesson 8. New Form Elements



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



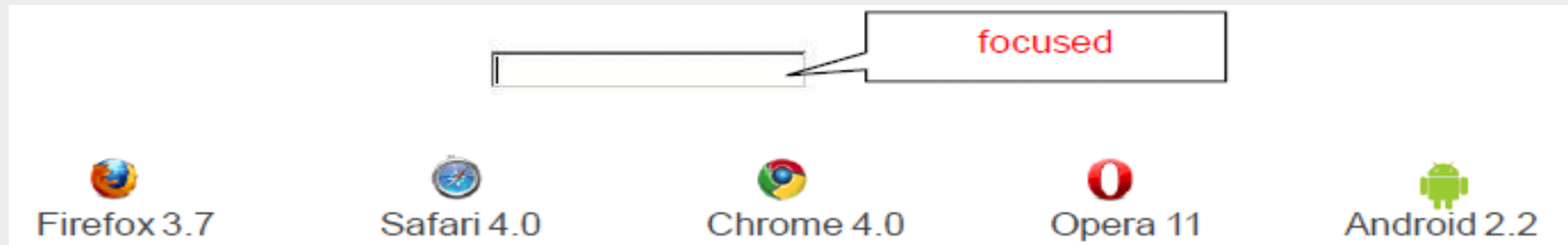
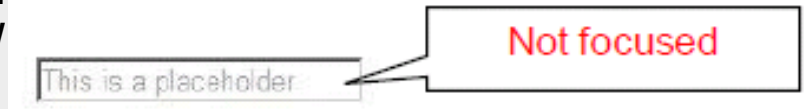
Placeholder

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 own



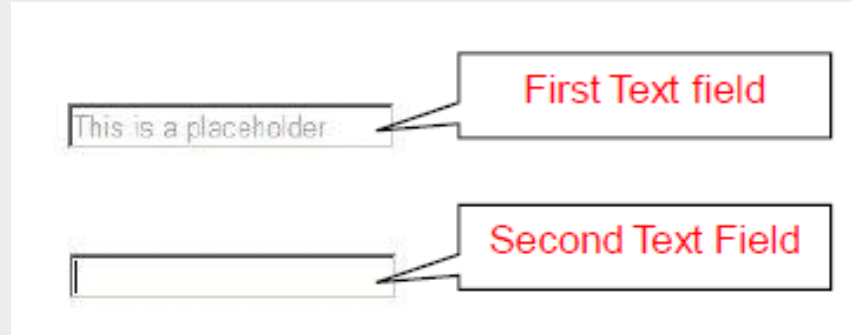
Auto Focus



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/>
```



Firefox 4



Safari 4.0



Chrome 3.0



Opera 10



Android 2.2



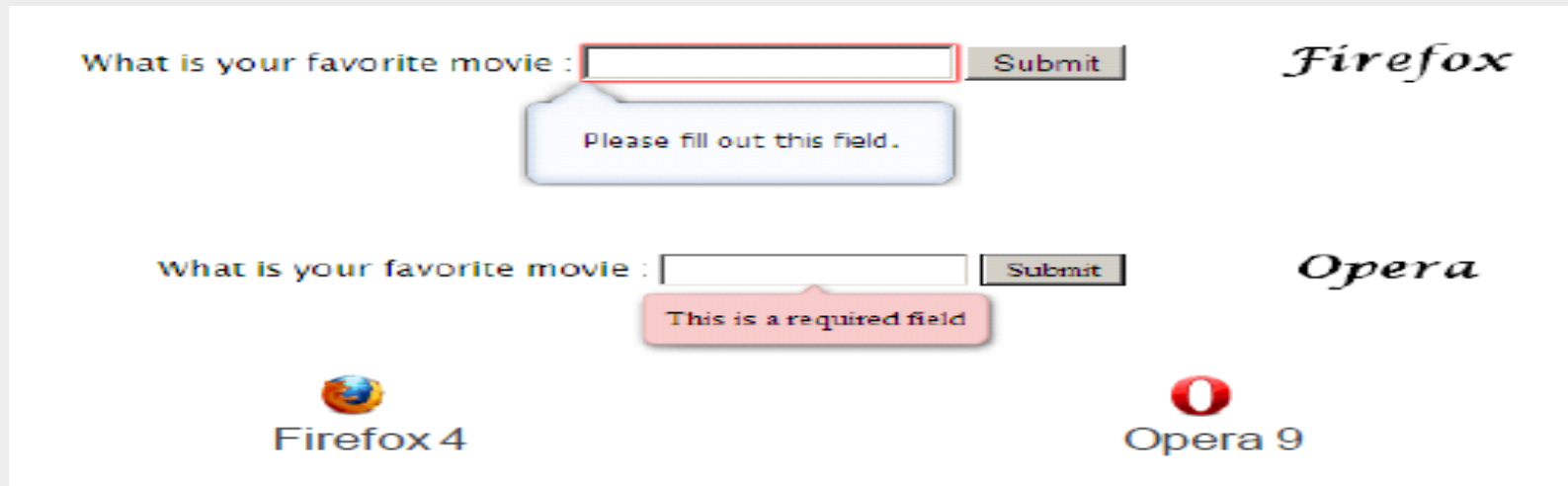
Required

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

Syntax is –

The value of a required field is left blank upon submission

```
<input name="name" type="text" required />
```





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}" title="666666">`
The a "field with Pattern attribute" is filled with invalid value upon submission

A screenshot of a web form. It has a label "Pincode:" followed by a text input field containing "773". The input field has a red border and a small "x" icon in the top right corner. Below the input field is a "Submit" button. A message box below the button says "You must use this format: 666666".

Pincode: 773 x

Submit

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:

nettutspus.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>
```



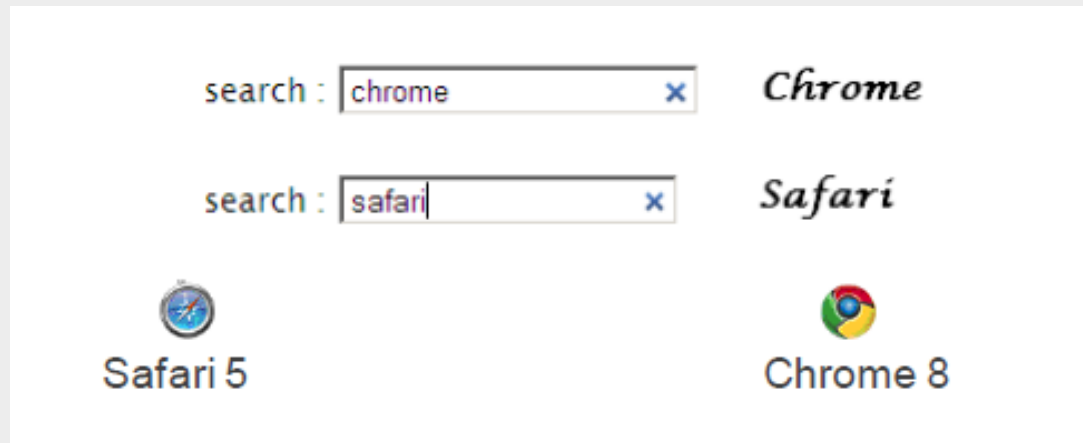


Search

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.

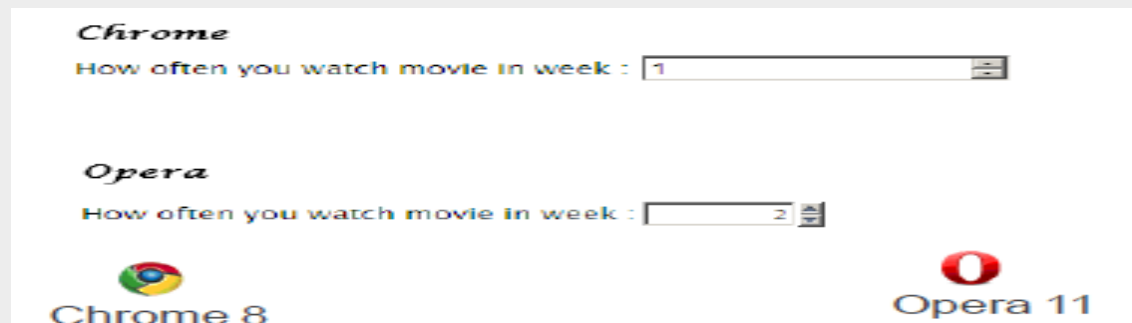
Min and max parameters provided to limit the values.

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 =""/>`





Range

Also known as slider

Before HTML5, programmers used to write lines of code for range/slider

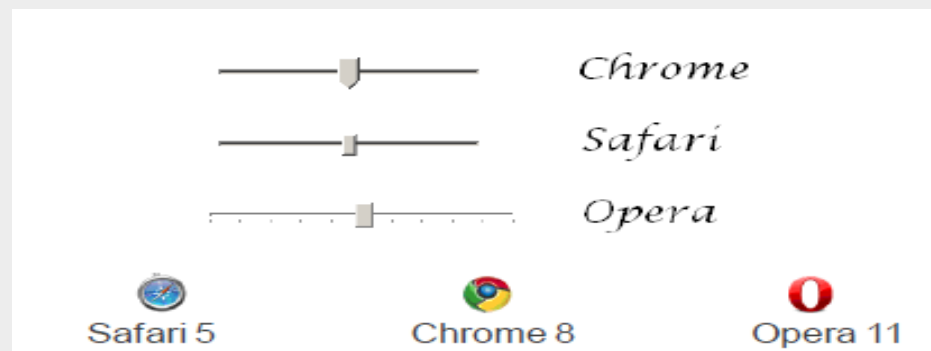
Easy to implement

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

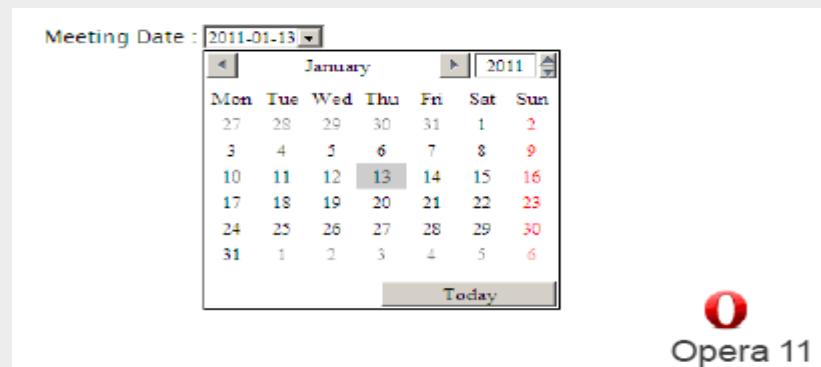


Date

- 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



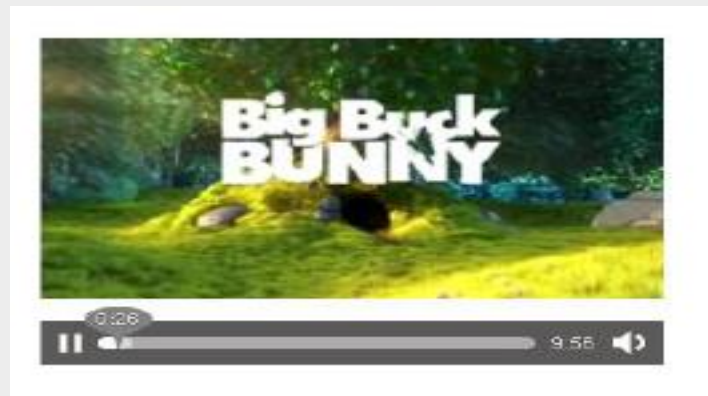
Video – HTML5 video tag is exactly similar to audio but with few extra attributes

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 from 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





8.3 : An HTML5 Detection Library

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



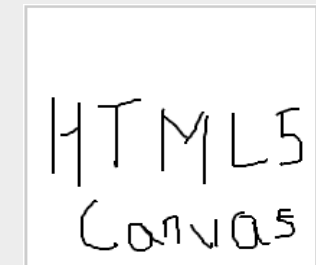
Canvas

➤ 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>
```



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, Modernizr, 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

