Chapter 3 Introduction to HTML5

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  - aside Element
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New HTML5 Form input Types

- These are not yet universally supported by all browsers.
  - Ref :http://www.wufoo.com/html5/

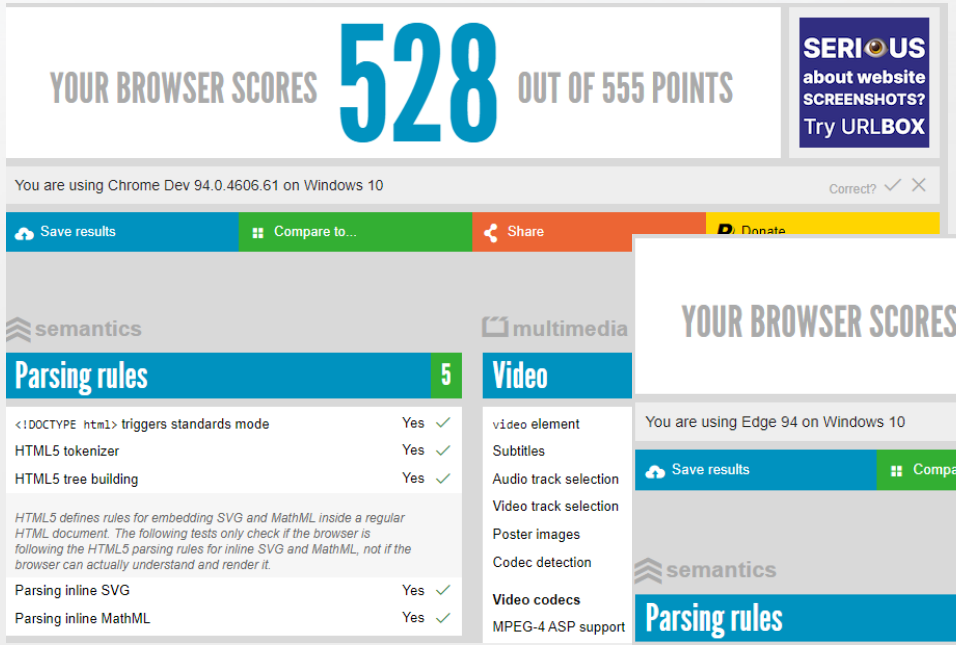
	Firefox	Safari	Safari	Chrome	Opera	IE	Android
Email	4+	5+	3.1+	6+/10+	10.6+	10+	4+
Tel	4+	5+	3.1+	6+	10.6+	10+	2.3+
Url	4+	5+	3.1+	6+/10+	10.6+	10+	2.3+
Search	4+	5+	4+	6+	10.6+	9/10+	4+
Color	29+	8+	8-	20+	11+	11-	4.4+
Number	29+	5+	3.2+	7+	9+	10+	2.3+
Range	23+	4+	5+	6+	11+	10+	4.2+
Date	32-	7-	5+	20+	9+	11+	4.4+

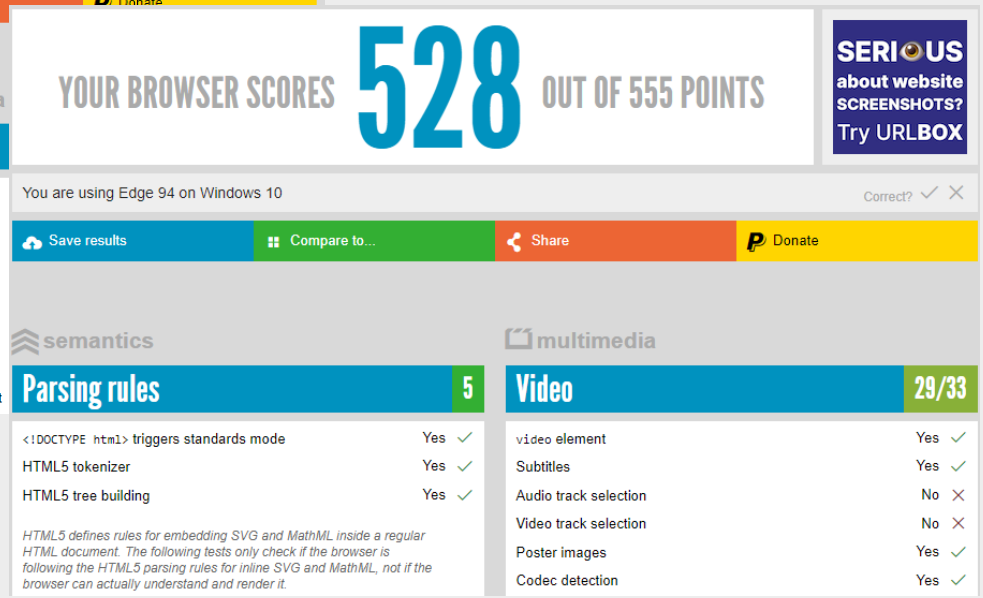
New HTML5 Form input Types

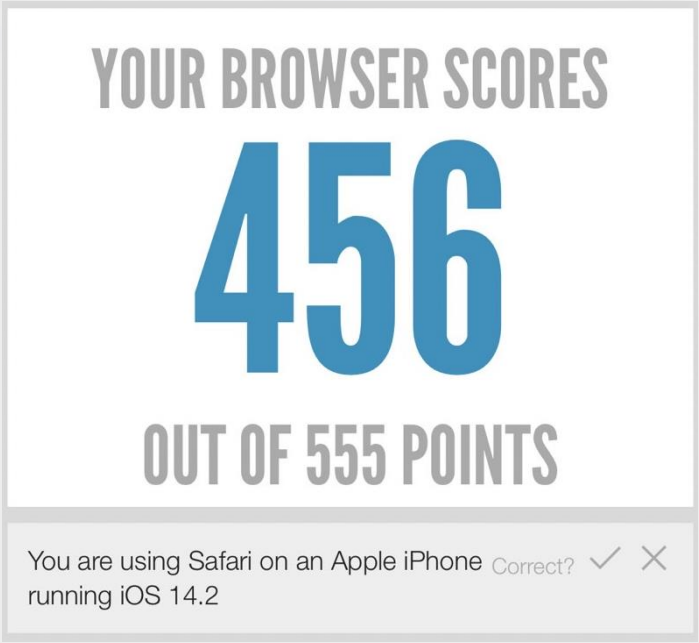
	Firefox	Safari	Safari	Chrome	Opera	IE	Android
Placeholder	4+	4+	4+	10+	11.10+	10+	2.3+
Autofocus	4+	5+	5-	6+	11+	10+	3+
Maxlength	4.4+	5+	4+	6+	11+	9+/10	2.3+
List (Datalist)	4+	7-	7-	20+	9+	10+	4.3-
Autocomplete	4+	5.2+	6+	14+	10.6+	11+	4.4+
Required	6+	5+	4+	6+	10.6+	10+	2.3+
Pattern	4+	5+	4+	10+	11+	10+	2.3+
Spellcheck	3.6+	4+	7+	10+	11+	10+	4.3-
Novalidate	4+	7-	7-	10+	10+	10+	4.2-
Formnovalidate	4+	7-	7-	6+	10.6+	10+	4.2-
Formaction	4+	5.2+	5+	10+	10.6+	10+	4.0+
Formmethod	4+	5.2+	5+	10+	10.6+	10+	4.0+
Formtarget	4+	5.2+	5+	10+	10.6+	10+	4.0+
Formenctype	4+	5.2+	5+	10+	10.6+	10+	4.0+
minlength	28-	7-	7-	33-	20-	11-	4.4-

New HTML5 Form input Types

- Test browser support
  - https://html5test.com/







New HTML5 Form input Types

- W3c validator
  - The xxx input type is not supported in all browsers. Please be sure to test, and consider using a polyfill.

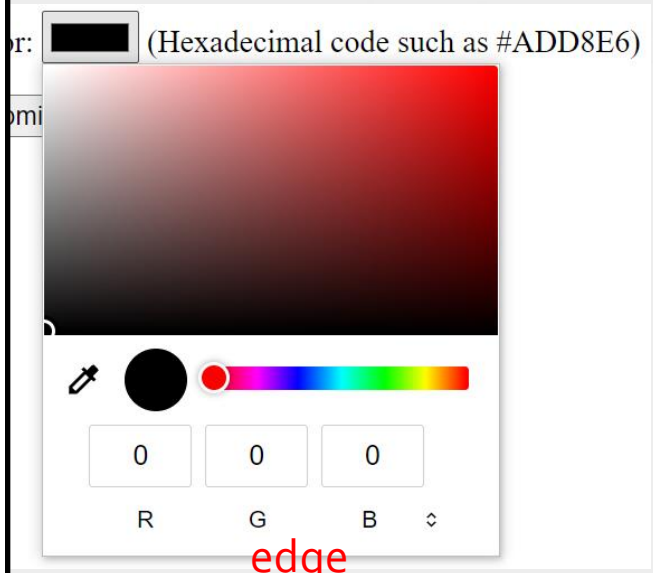
- Polyfill
  - A polyfill or polyfiller is code designed to provide technology that is not native to a web browser.
  - http://afarkas.github.io/webshim/demos/

New HTML5 Form input Types

- input Type color

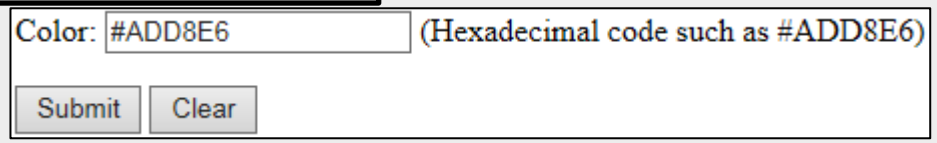
```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>Color:
               <input type = "color" autofocus />
               (Hexadecimal code such as #ADD8E6)
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome



edge

IE 11



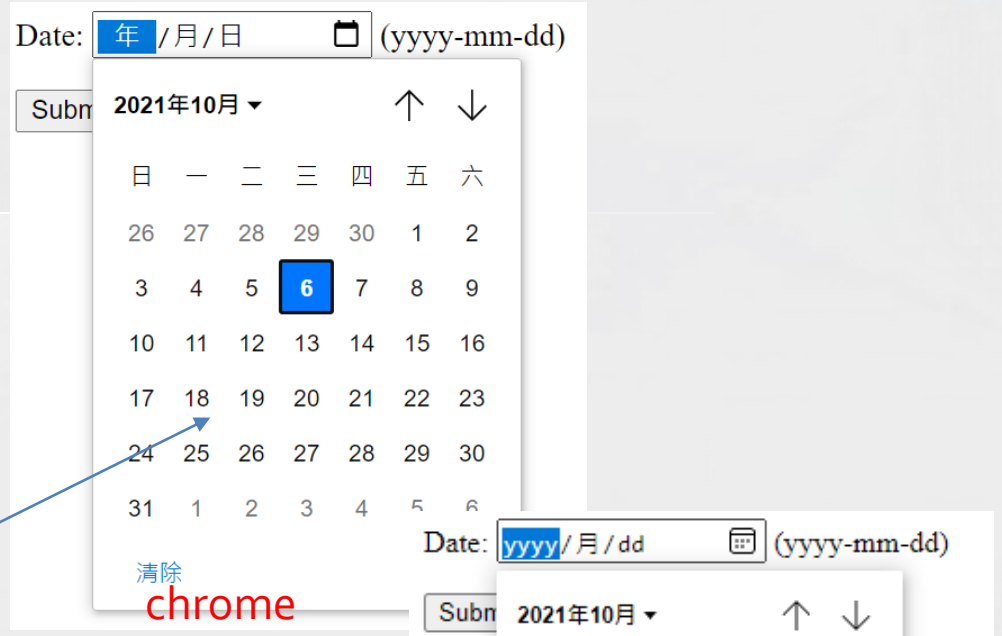
New HTML5 Form input Types

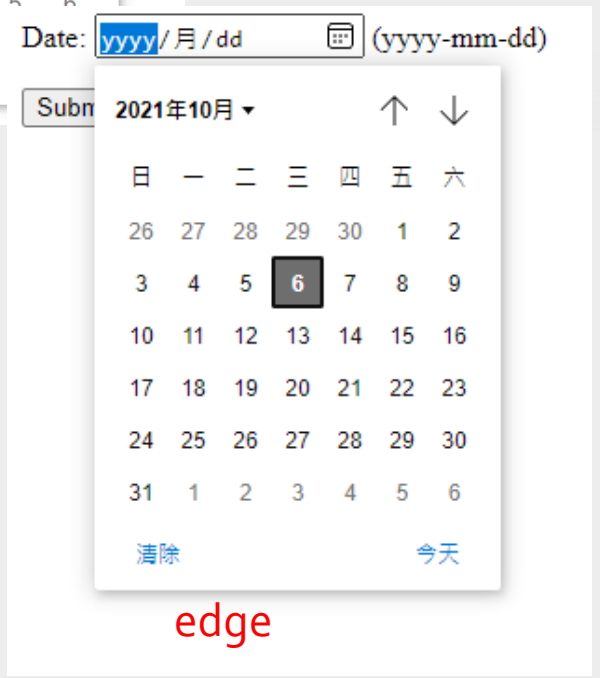
- The *color* input type enables the user to enter a color.
  - At the time of this writing, most browsers render the color input type as a text field in which the user can enter a hexadecamal code or a color name.
  - In the future, when you click a color input, browsers will likely display a color picker similar to the Microsoft Windows color dialog
- The *autofocus* attribute—an optional attribute that can be used in only one input element on a form—automatically gives the focus to the input element, allowing the user to begin typing in that element immediately.

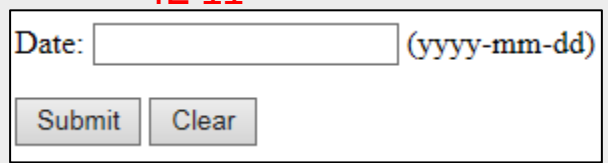
New HTML5 Form input Types

- input Type date

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com">
       <p>
            <label>Date:
               <input type = "date" />
                  (yyyy-mm-dd)
            </label>
       </p>
       <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
       </p>
      </form>
   </body>
</html>
```







New HTML5 Form input Types

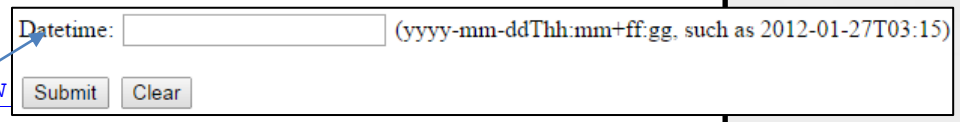
- The *date* input type enables the user to enter a date in the form yyyy-mm-dd.
  - a text field, user can enter a date such as 2012-01-27.
  - a spinner control—a text field with an up-down arrow () on the right side—allowing the user to select a date by clicking the up or down arrow.
- The start date is the current date.

New HTML5 Form input Types

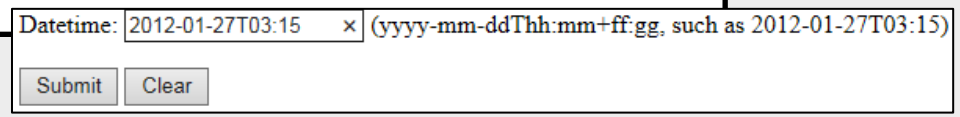
- input Type datetime

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>New HTML5 Input Types</title>
    </head>
    <body>
        <form method = "post" action = "http://www
        <p>
                <label>Datetime:
                    <input type = "datetime" />
                        (yyyy-mm-ddThh:mm+ff:gg, such as 2012-01-27T03:15)
                </label>
        </p>
        <p>
                <input type = "submit" value = "Submit" />
                <input type = "reset" value = "Clear" />
            </p>
        </form>
    </body>
</html>
```

chrome



IE 11



New HTML5 Form input Types

- `yyyy-mm-ddThh:mm+ff:gg`
  - yyyy: Four digits for the year.
  - -: An actual dash character
  - mm: Two digits for the month.
  - dd: Two digits for the day.
  - T: The capital T indicates the beginning of the time part of the code.
  - hh: Two digits for the hour, in 24-hour format.
  - :: The colon character between the hour and minutes.
  - mm: Two digits for the minutes.
  - +/-/Z: The time zone offset is indicated by a capital Z (if the time is Zulu or GMT time) or the + or - symbol if time is in another time zone.
  - ff: If the time zone is not Zulu, indicate the number of hours offset from GMT.
  - gg: Number of minutes offset from Zulu time. Typically this is 00, but it is possible that the time zone will be offset by 15, 30, or 45 minutes.

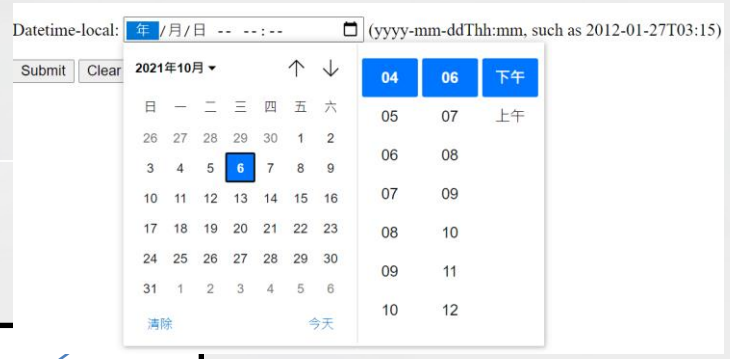
New HTML5 Form input Types

- The *datetime* input type enables the user to enter a date (year, month, day), time (hour, minute, second, fraction of a second) and the time zone set to UTC
- Currently, most of the browsers render datetime as a text field.

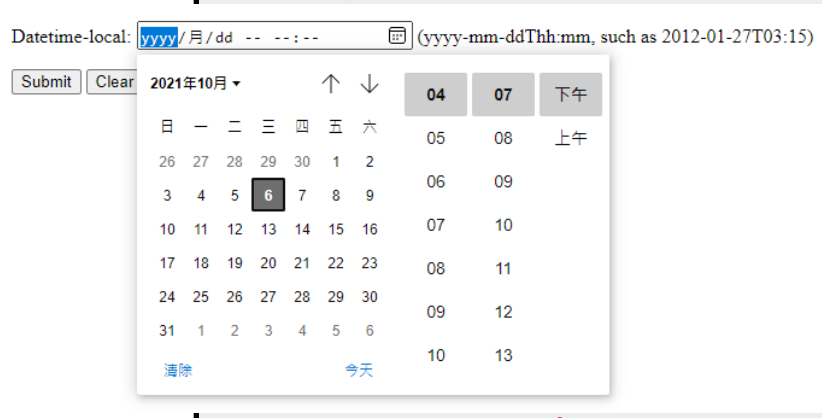
New HTML5 Form input Types

- input Type datetime-local

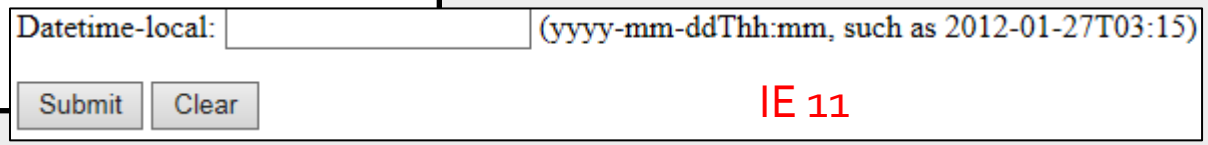
```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>

   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>Datetime-local:
               <input type = "datetime-local" />
                  (yyyy-mm-ddThh:mm, such as 2012-01-27T03:15)
            </label>
         </p>
          <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```



chrome



edge



IE 11

New HTML5 Form input Types

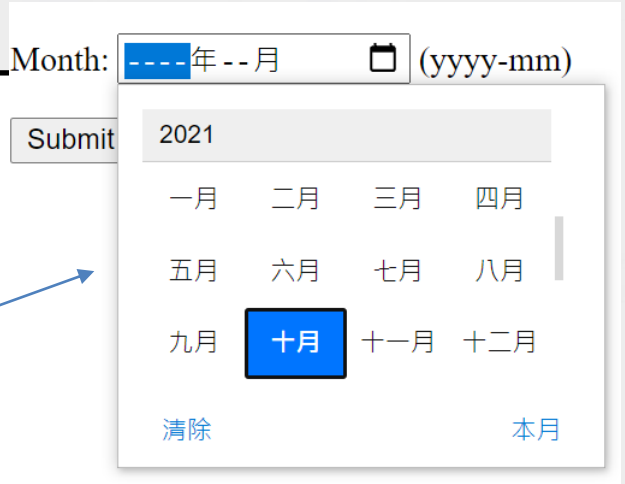
- The *datetime-local* input type enables the user to enter the date and time in a single control.
- The data is entered as year, month, day, hour, minute, second and fraction of a second.

New HTML5 Form input Types

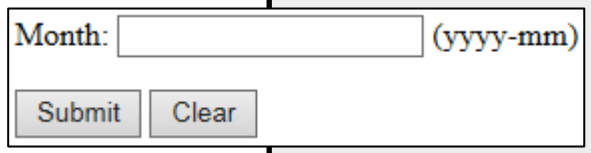
- input Type month

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>

   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>Month:
               <input type = "month" /> (yyyy-mm)
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome



IE 11



New HTML5 Form input Types

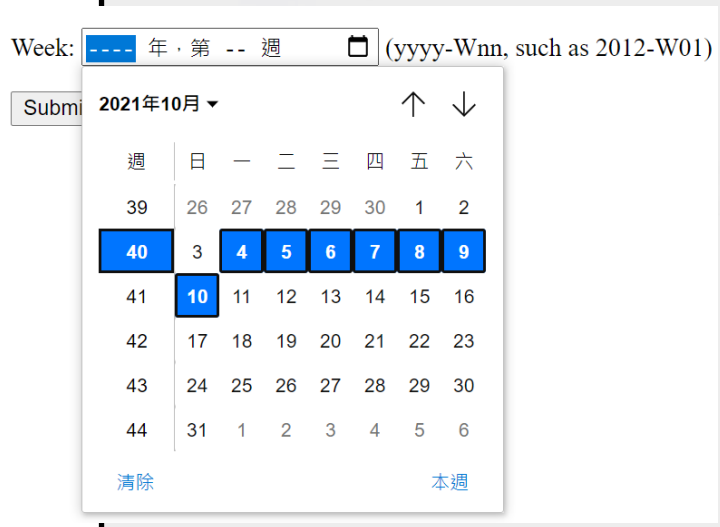
- The *month* input type enables the user to enter a year and month in the format yyyy-mm, such as 2012-01.

New HTML5 Form input Types

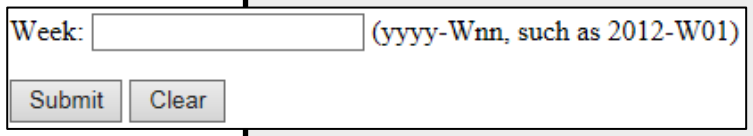
- input Type week

```
<!DOCTYPE html>

<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>

   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>Week:
               <input type = "week" />
                  (yyyy-Wnn, such as 2012-W01)
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome



IE 11



New HTML5 Form input Types

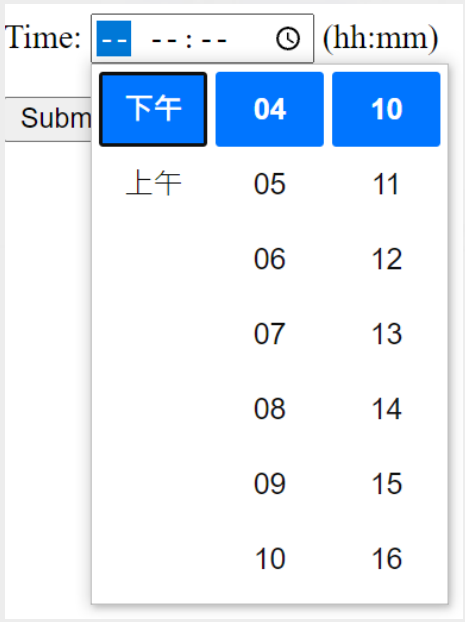
- The *week* input type enables the user to select a year and week number in the format yyyy-Wnn, where nn is 01–53—for example, 2012-W01 represents the first week of 2012.

New HTML5 Form input Types

- input Type time

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>

   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>Time:
               <input type = "time" /> (hh:mm)
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome



IE 11

New HTML5 Form input Types

- The *time* input type enables the user to enter an hour, minute.
- The HTML5 specification indicates that a time must have two digits representing the hour, followed by a colon (:) and two digits representing the minute.

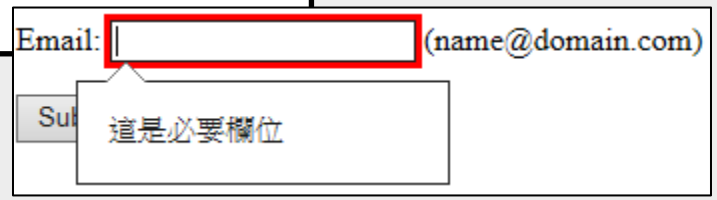
New HTML5 Form input Types

- input Type email

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com
         <p>
            <label>Email:
               <input type = "email" placeholder = "name@domain.com"
                  required /> (name@domain.com)
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome

IE 11



edge

New HTML5 Form input Types

- The *email* input type enables the user to enter an e-mail address or a list of e-mail addresses separated by commas (if the multiple attribute is specified).
- Currently, all of the browsers display a text field.
- If the user enters an invalid e-mail address (i.e., the text entered is not in the proper format) and clicks the Submit button, a callout asking the user to enter an e-mail address is rendered pointing to the input element .
- HTML5 does not check whether an e-mail address entered by the user actually exists—rather it just validates that the e-mail address is in the proper format.

New HTML5 Form input Types

- The *placeholder* attribute allows you to place temporary text in a text field.
- Generally, placeholder text is light gray and provides an example of the text and/or text format the user should enter.
- When the focus is placed in the text field (i.e., the cursor is in the text field), the placeholder text disappears—it's not "submitted" when the user clicks the Submit button (unless the user types the same text).
- HTML5 supports placeholder text for only six input types - *text*, *search*, *url*, *tel*, *email* and *password*.

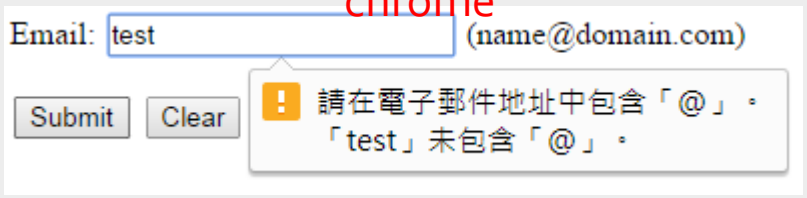
New HTML5 Form input Types

- The *required* attribute forces the user to enter a value before submitting the form.
- You can add required to any of the input types.

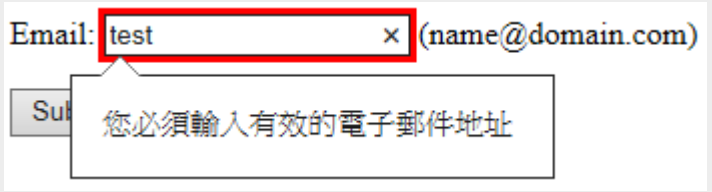
New HTML5 Form input Types

- Validation
  - The new HTML 5 input types are self validating on the client side, eliminating the need to add complicated JavaScript code to your web pages to validate user input.
  - The server should still validate all user input.
  - When a user enters data into a form then submits the form the browser immediately checks the self-validating elements to ensure that the data is correct.

chrome



IE



New HTML5 Form input Types

- If you want to bypass validation, you can add the *formnovalidate attribute* to input type submit.

```
<input type = "submit" value = "Submit" formnovalidate />
```

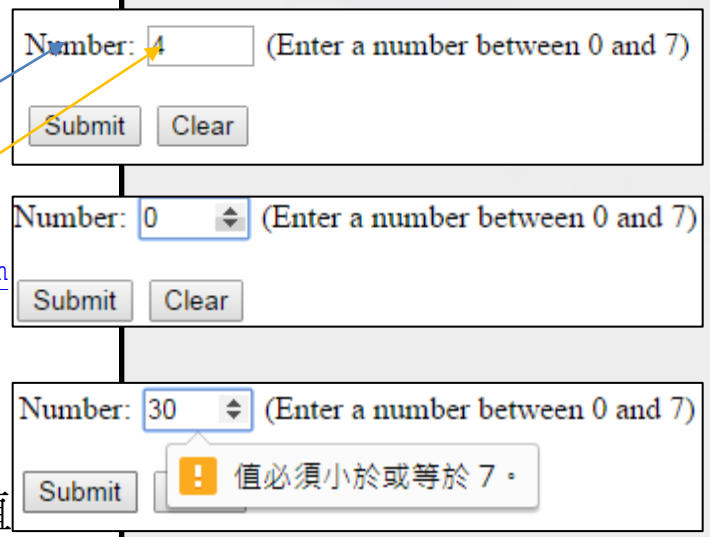
New HTML5 Form input Types

- input Type number

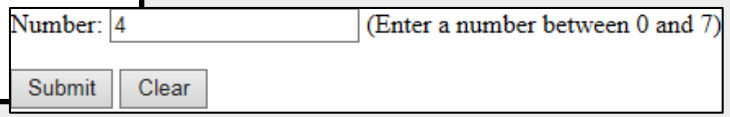
```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com
         <p>
            <label>Number:
               <input type = "number"
                  min = "0"
                  max = "7"
                  step = "1"
                  value = "4" />
            </label> (Enter a number between 0 and 7)
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

min : 最小
max: 最大
step:間隔
value:初始值

chrome



IE 11



New HTML5 Form input Types

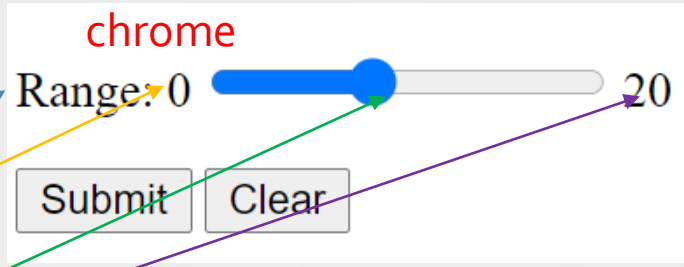
- The *number* input type enables the user to enter a numerical value—mobile browsers typically display a numeric keypad for this input type.
- The *min* attribute sets the minimum valid number.
- The *max* attribute sets the maximum valid number.
- The *step* attribute determines the increment in which the numbers increase.
- The *value* attribute sets the initial value displayed in the form .
- The spinner control includes only the valid numbers.

New HTML5 Form input Types

- input Type range

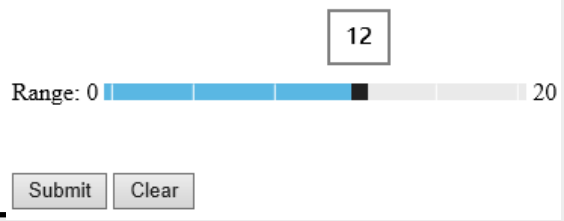
```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>Range:
               0 <input type = "range"
                  min = "0"
                  max = "20"
                  value = "10" /> 20
            </label>
         </p>
          <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome



min : 最小
max: 最大
value:初始值

IE 11



New HTML5 Form input Types

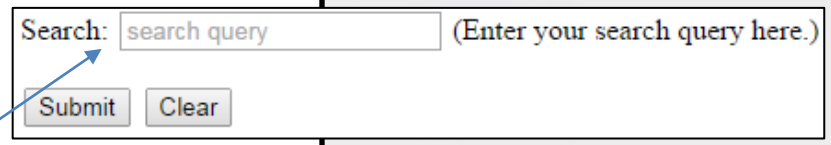
- The *range* input type appears as a slider control
- You can set the minimum and maximum and specify a value.
- The *range* input type is inherently self-validating when it is rendered by the browser as a slider control, because the user is unable to move the slider outside the bounds of the minimum or maximum value.

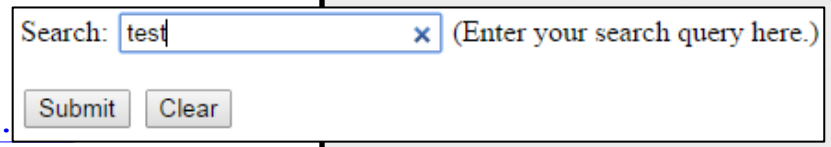
New HTML5 Form input Types

- input Type search

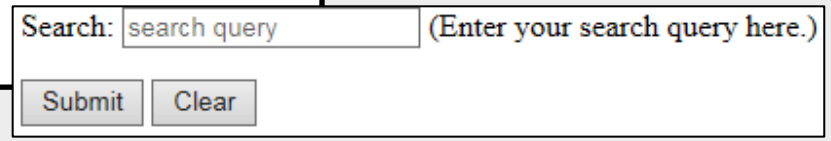
```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.
         <p>
            <label>Search:
               <input type = "search" placeholder = "search query" />
            </label> (Enter your search query here.)
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome





IE 11



New HTML5 Form input Types

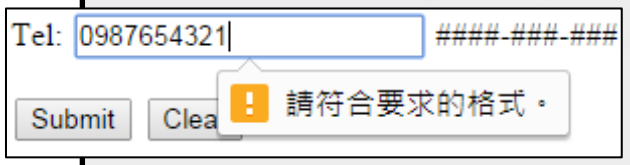
- The *search* input type provides a search field for entering a query.
- This input element is functionally equivalent to an input of type *text*.
- When the user begins to type in the search field, Chrome and Safari display an X that can be clicked to clear the field.

New HTML5 Form input Types

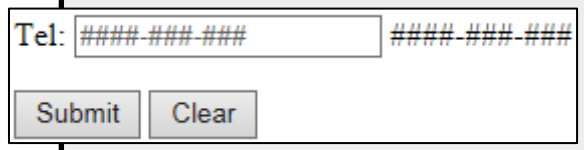
- input Type tel

```
<!DOCTYPE html>

<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com">
        <p>
            <label>Tel:
               <input type = "tel" placeholder = "####-###-###"
                  pattern = "\d{4}-\d{3}-\d{3}" required />
                  ####-###-###
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

chrome



IE 11



New HTML5 Form input Types

- The *tel* input type enables the user to enter a telephone number—mobile browsers typically display a keypad specific to entering phone numbers for this input type.
- At the time of this writing, the *tel* input type is rendered as a text field in all of the browsers.
- HTML5 does not self validate the *tel* input type.
- To ensure that the user enters a phone number in a proper format, we've added a *pattern* attribute that uses a regular expression to determine whether the number is in the format.
- When the user enters a phone number in the wrong format, a callout appears requesting the proper format, pointing to the *tel* input element.

Regular Expression

```
. # Matches any single character.
[ ] # Matches a single character that is contained within the brackets.
( )# Groups expressions to assist in alternation and back referencing.
^ # Matches the starting position within the string.
$ # Matches the ending position of the string or the position just before a string-ending newline.
```

```
e.g
[abc] # match "a" or "b" or "c"
[A-Z] # match "A" to "Z"
[a-z] # match "a" to "z"
[0-9] # match "0" to "9"
```

Regular Expression

```
+ #  Matches the preceding element one or more times.
* #  Matches the preceding element zero or more times.
? #  Matches the preceding element zero or one time
{n,m} #  Matches from n to m of the preceding characters
{n} #  Matches exactly n times of the preceding characters…
{n,} #  Matches at least n of of the preceding characters
```

```
e.g
a+ # match “a” or “aa” or “aaa” …
A? # match “A” or “”
b{1,3} # match “b” or “bb” or “bbb”
B{2} # match “BB“
C{2,} # match “CC” or “CCC” or “CCCC”…
```

Regular Expression

- Escaped characters

```
\d # digit
\D # Non-digit
\s # whitespace
\S # Non-whitespace
\t # Tab
```

Regular Expression

- Escape character
  - \.
    - e.g. IP
  - \\
  - \(
    - e.g. Telphone
  - \[
  - \{

Exercise

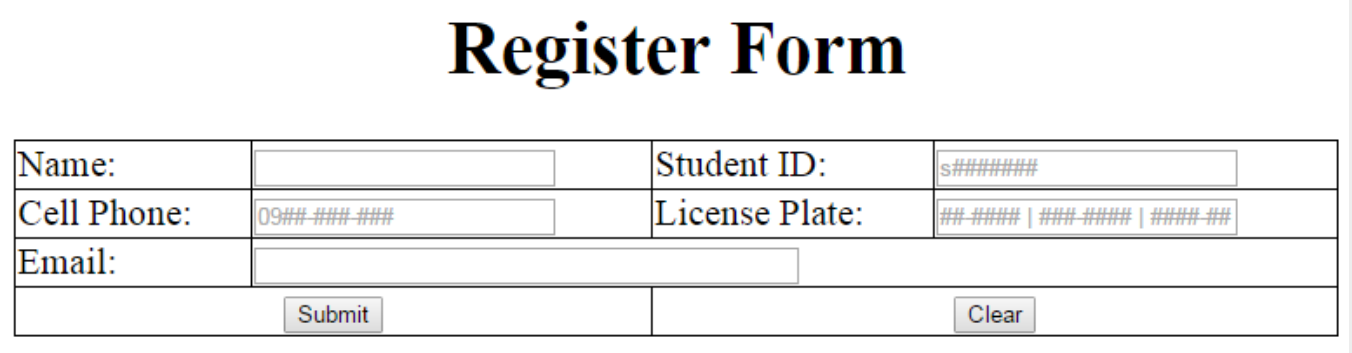
- Regular Expression
  - 學號
    - sxxxxxxx
  - 市話
    - (##) ###-####
    - (##) ####-####
    - (###) ###-###
  - YZU Email
    - sxxxxxxx@mail.yzu.edu.tw
    - xxxxx@saturn.yzu.edu.tw

Exercise

- Regular Expression
  - PTT ID
    - 英數組成
    - 第一碼不為數字
    - 最多12碼、最少2碼
  - 身分證字號
    - 大寫英文 + 1 or 2 + 八碼數字

Exercise

- Student ID
  - s+學號七碼
- Cell Phone
  - 09##-###-###
- License Plate
  - 前三碼大寫英文-後四碼數字(不包含4)
  - 兩碼英數-後四碼數字
  - 前四碼數字-後兩碼不限



New HTML5 Form input Types

- input Type url

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Input Types</title>
   </head>
   <body>
      <form method = "post" action = "http://www.deitel.com">
         <p>
            <label>URL:
               <input type = "url"
                  placeholder = "http://www.domainname.com" />
                  (http://www.domainname.com)
            </label>
         </p>
         <p>
            <input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" />
         </p>
      </form>
   </body>
</html>
```

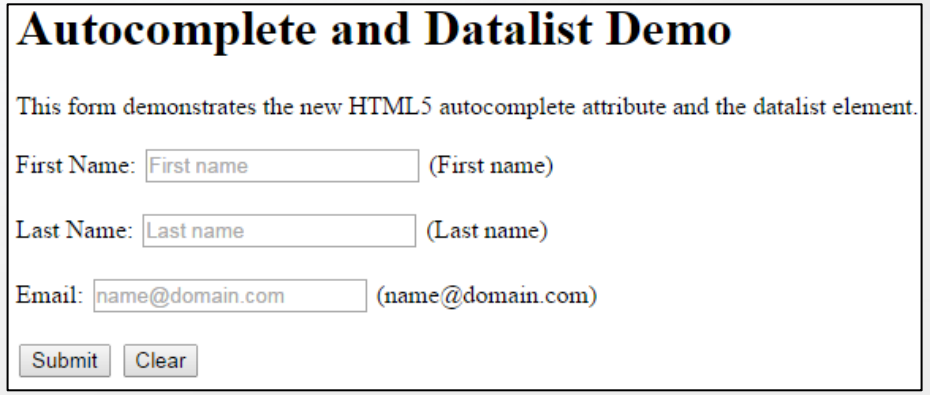
New HTML5 Form input Types

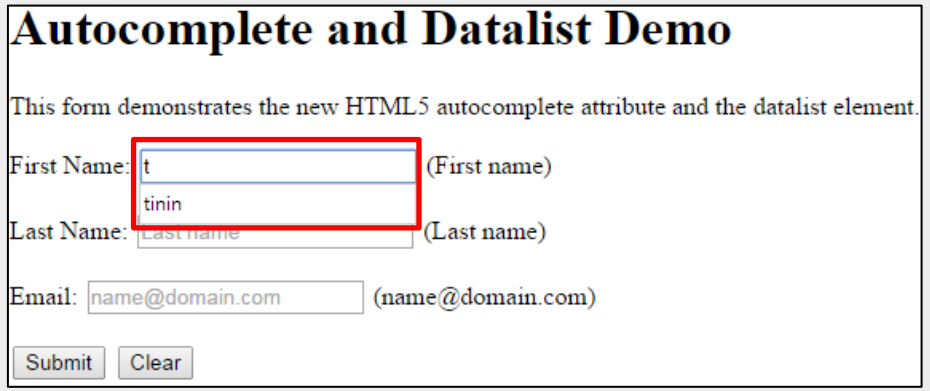
- The *url* input type enables the user to enter a URL.
- The element is rendered as a text field, and the proper format is http://www.deitel.com.
- If the user enters an improperly formatted URL (e.g., www.deitel.com or www.deitelcom), the URL will not validate

input and datalist Elements and autocomplete Attribute

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 autocomplete Attribute and datalist Element</title>
   </head>
   <body>
      <h1>Autocomplete and Datalist Demo</h1>
      <p>This form demonstrates the new HTML5 autocomplete attribute
         and the datalist element.
      </p>
     <form method = "post" autocomplete = "on">
         <p><label>First Name:
            <input type = "text" id = "firstName"
               placeholder = "First name" /> (First name)
            </label></p>
         <p><label>Last Name:
            <input type = "text" id = "lastName"
               placeholder = "Last name" /> (Last name)
            </label></p>
         <p><label>Email:
            <input type = "email" id = "email"
               placeholder = "name@domain.com" /> (name@domain.com)
            </label></p>
         <p><input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" /></p>
      </form>
   </body>
</html>
```

input and datalist Elements and autocomplete Attribute





input and datalist Elements and autocomplete Attribute

- The *autocomplete* attribute can be used on input types to automatically fill in the user's information based on previous input—such as name, address or e-mail.
- You can enable autocomplete for an entire form or just for specific elements.

```
<p><label>First Name:
    <input type = "text" id = "firstName"
    placeholder = "First name" autocomplete = "on" /> (First name)
</label></p>
```

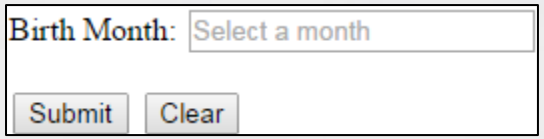
Error-Prevention Tip 3.1

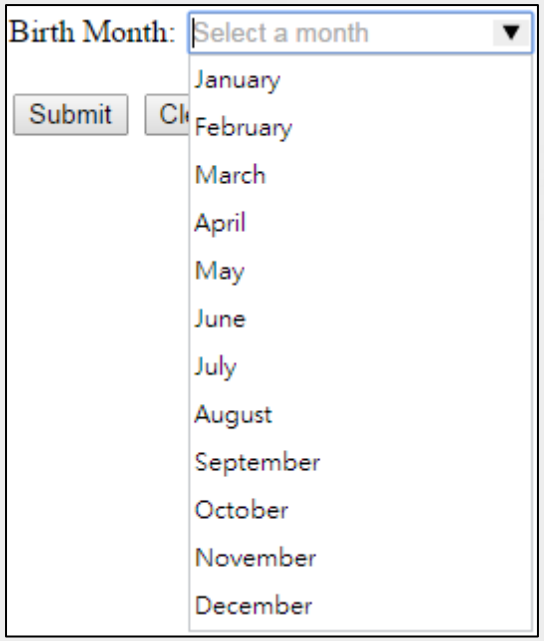
The `autocomplete` attribute works only if you specify a `name` or `id` attribute for the `input` element.

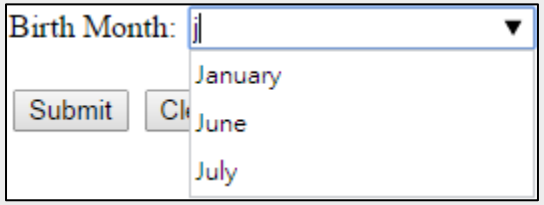
input and datalist Elements and autocomplete Attribute

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 autocomplete Attribute and datalist Element</title>
   </head>
   <body>
      <form method = "post" autocomplete = "on">
         <p><label for = "txtList">Birth Month:
            <input type = "text" id = "txtList"
               placeholder = "Select a month" list = "months" />
            <datalist id = "months">
               <option value = "January">
               <option value = "February">
               <option value = "March">
               <option value = "April">
               <option value = "May">
               <option value = "June">
               <option value = "July">
               <option value = "August">
               <option value = "September">
               <option value = "October">
               <option value = "November">
               <option value = "December">
            </datalist>
         </label></p>
         <p><input type = "submit" value = "Submit" />
            <input type = "reset" value = "Clear" /></p>
      </form>
   </body>
</html>
```

名稱要一致



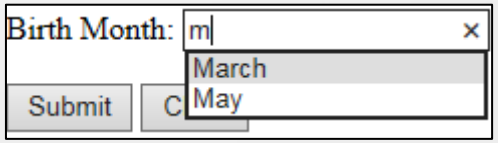




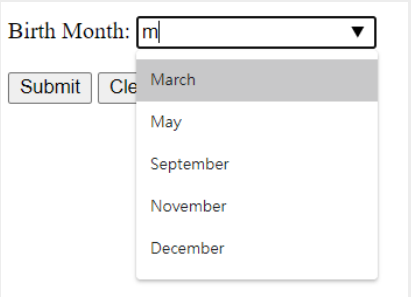
input and datalist Elements and autocomplete Attribute

- The *datalist* element provides input options for a text input element.
- At the time of this writing, *datalist* support varies by browser.

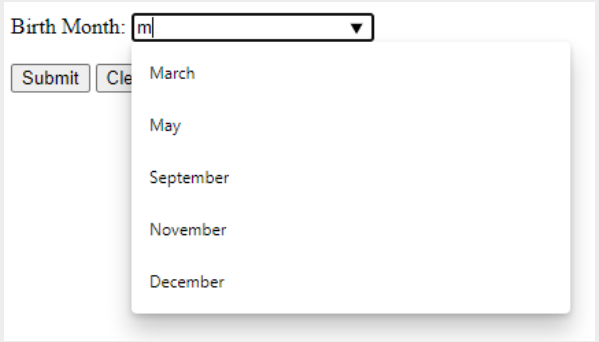
IE



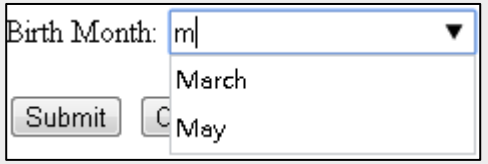
Chrome



Edge



Opera



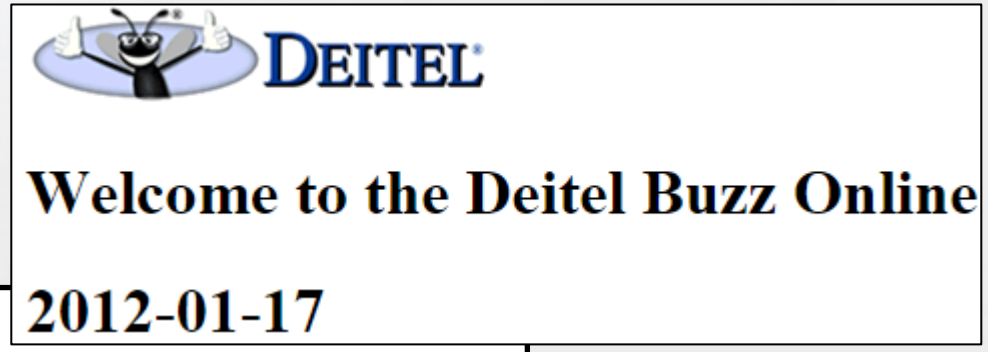
Page-Structure Elements

Page-Structure Elements

- HTML5 introduces several new page-structure elements that meaningfully identify areas of the page as headers, footers, articles, navigation areas, asides, figures and more.

Ref:http://mepopedia.com/forum/read.php?804,45304

Page-Structure Elements




```
<!DOCTYPE html>

<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>

   <body>
      <header>
         <img src = "deitellogo.png" alt = "Deitel logo" />
         <h1>Welcome to the Deitel Buzz Online<h1>
         <time>2012-01-17</time>
      </header>
   </body>
</html>
```

header Element

- The *header* element creates a header for this page that contains both text and graphics.
- The *header* element can be used multiple times on a page and can include HTML headings (<h1> through <h6>), navigation, images and logos and more.

time Element

- The *time* element, which does not need to be enclosed in a header, enables you to identify a date, a time or both.

Page

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>
   <body>
      <section id = "1">
         <nav>
            <h2> Recent Publications</h2>
            <ul>
               <li><a href = "http://www.deitel.com/books/iw3htp5">
                  Internet & World Wide Web How to Program, 5/e</a></li>
               <li><a href = "http://www.deitel.com/books/androidfp/">
                  Android for Programmers: An App-Driven Approach</a></li>
               <li><a href = "http://www.deitel.com/books/iphonefp">
                  iPhone for Programmers: An App-Driven Approach</a></li>
               <li><a href = "http://www.deitel.com/books/jhtp9/">
                  Java How to Program, 9/e</a></li>
               <li><a href = "http://www.deitel.com/books/cpphtp8/">
                  C++ How to Program, 8/e</a></li>
               <li>
                  <a href = "http://www.deitel.com/books/vcsharp2010htp">
                     Visual C# 2010 How to Program, 4/e</a></li>
               <li><a href = "http://www.deitel.com/books/vb2010htp">
                  Visual Basic 2010 How to Program</a></li>
            </ul>
         </nav>
      </section>
   </body>
</html>
```

Recent Publications

- Internet & World Wide Web How to Program, 5/e
- Android for Programmers: An App-Driven Approach
- iPhone for Programmers: An App-Driven Approach
- Java How to Program, 9/e
- C++ How to Program, 8/e
- Visual C# 2010 How to Program, 4/e
- Visual Basic 2010 How to Program

nav Element

- The *nav* element groups navigation links.
- Notice that NOT all links of a document should be inside a <nav> element. The <nav> element is intended only for major block of navigation links.

section Element

- The *section* element describes a section of a document, usually with a heading for each section-these elements can be nested.
- In this example, we broke the document into three sections - the first is Recent Publications.
- The *section* element may also be nested in an article.

Page-Structure Elements

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>
   <body>
      <section id = "2">
         <h2>How to Program Series Books</h2>
         <h3><em>Java How to Program, 9/e</em></h3>

         <figure>
            <img src = "jhtp.jpg" alt = "Java How to Program, 9/e" />

            <figcaption><em>Java How to Program, 9/e</em>
               cover.</figcaption>
         </figure>
 </body>
</html>
```

How to Program Series Books

Java How to Program, 9/e

Java How to Program, 9/e cover.

figure Element and figcaption Element

- The *figure* element describes a figure (such as an image, chart or table) in the document .
- The *figcaption* element provides a caption for the image in the figure element.

Page-Structure Elements

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>
   <body>
      <article>
         <header>
           <h5>From <em><a href = "http://www.deitel.com/books/jhtp9/">Java How to program, 9/e: </a></em></h5>
         </header>
         <p>Features include:
            <ul>
               <li>Rich coverage of fundamentals, including <mark>two chapters on control statements.</mark></li>
               <li>Focus on <mark>real-world examples.</mark></li>
               <li><mark>Making a Difference exercises set.</mark></li>
               <li>Early introduction to classes, objects, methods and strings.</li>
               <li>Integrated exception handling.</li>
               <li>Files, streams and object serialization.</li>
               <li>Optional modular sections on language and library features of the new Java SE 7.</li>
               <li>Other topics include: Recursion, searching, sorting, generic collections, generics, data structures, applets,
                  multimedia, multithreading, databases/JDBC&trade;, web-app development, web services and an optional ATM Object-
                  Oriented Design case study.</li>
            </ul>
         <details>
            <summary>Recent Edition Testimonials</summary>
               <ul>
                  <li>"Updated to reflect the state of the art in Java technologies; its deep and crystal clear explanations make it
                     indispensable. The social-consciousness [Making a Difference] exercises are something really new and
                     refreshing."<strong>&mdash;Jos&eacute; Antonio Gonz&aacute;lez Seco, Parliament of Andalusia</strong></li>
                  <li>"Gives new programmers the benefit of the wisdom derived from many years of software development
                     experience."<strong>&mdash;Edward F. Gehringer, North Carolina State University</strong></li>
                  <li>"Introduces good design practices and methodologies right from the beginning. An excellent starting point for
                     developing high-quality robust Java applications."<strong>&mdash;Simon Ritter, Oracle Corporation</strong></li>
                  <li>"An easy-to-read conversational style. Clear code examples propel readers to become proficient in
                     Java."<strong>&mdash;Patty Kraft, San Diego State University</strong></li>
                  <li>"A great textbook with a myriad of examples from various application domains&mdash; excellent for a typical CS1 or
                     CS2 course."<strong>&mdash;William E. Duncan, Louisiana State University</strong></li>
               </ul>
         </details>
         </p>
      </article>
   </body>
</html>
```

Page-Structure Elements

From *Java How to program, 9/e:*

 :emphasized text

Features include:

<mark>

- Rich coverage of fundamentals, including two chapters on control statements.
- Focus on real-world examples.
- Making a Difference exercises set.
- Early introduction to classes, objects, methods and strings.
- Integrated exception handling.
- Files, streams and object serialization.
- Optional modular sections on language and library features of the new Java SE 7.
- Other topics include: Recursion, searching, sorting, generic collections, generics, data structures, applets,

▶ Recent Edition Testimonials <details><summary>

Features include:

- Rich coverage of fundamentals, including two chapters on control statements.
- Focus on real-world examples.
- Making a Difference exercises set.
- Early introduction to classes, objects, methods and strings.
- Integrated exception handling.
- Files, streams and object serialization.
- Optional modular sections on language and library features of the new Java SE 7.
- Other topics include: Recursion, searching, sorting, generic collections, generics, data structures, applets,

▼ Recent Edition Testimonials <details><summary>

- "Updated to reflect the state of the art in Java technologies; its deep and crystal clear explanations make
- "Gives new programmers the benefit of the wisdom derived from many years of software development e
- "Introduces good design practices and methodologies right from the beginning. An excellent starting poi
- "An easy-to-read conversational style. Clear code examples propel readers to become proficient in Java."
- "A great textbook with a myriad of examples from various application domains— excellent for a typical

article Element

- The *article* element describes standalone content that could potentially be used or distributed elsewhere, such as a news article, forum post or blog entry.
- You can nest article elements. For example, you might have reader comments about a magazine nested as an article within the magazine article.

summary Element and details Element

- The *summary* element displays a right-pointing arrow next to a summary or caption when the document is rendered in a browser.
- When clicked, the arrow points downward and reveals the content in the *details* element.

mark Element

- The *mark* element highlights the text that's enclosed in the element.

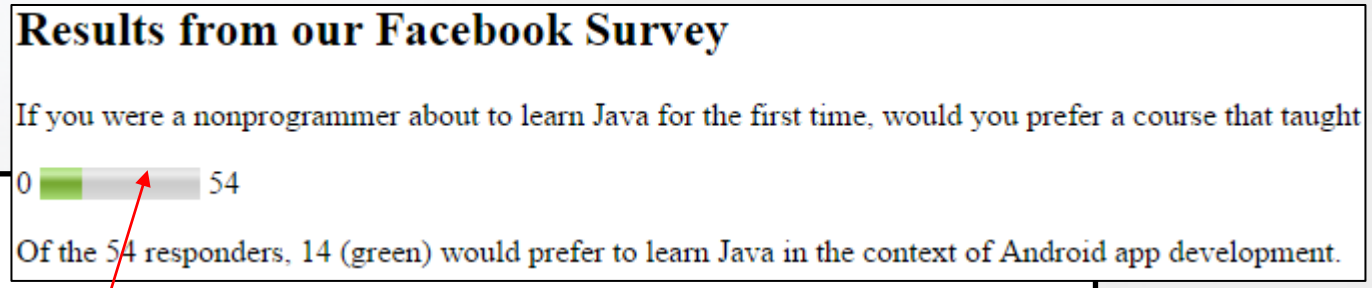
Page-Structure Elements

```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>
   <body>
      <aside>
                The aside element is not formatted by the browsers.
      </aside>
      <h2>Deitel Developer Series Books</h2>
      <h3><em>Android for Programmers: An App-Driven Approach
      </em></h3>
      Click <a href = "http://www.deitel.com/books/androidfp/">
      here</a> for more information or to order this book.
      <h2>LiveLessons Videos</h2>
      <h3><em>C# 2010 Fundamentals LiveLessons</em></h3>
      Click <a href = "http://www.deitel.com/Books/LiveLessons/">
      here</a> for more information about our LiveLessons videos.
 </body>
</html>
```

aside Element

- The *aside* element describes content that's related to the surrounding content (such as an article) but is somewhat separate from the flow of the text.

Page-Structure Elements




```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>
   <body>
     <section id = "3">
      <h2>Results from our Facebook Survey</h2>
         <p>If you were a nonprogrammer about to learn Java for the first
            time, would you prefer a course that taught Java in the
            context of Android app development? Here are the results from
            our survey:</p>
            0 <meter min = "0"
            max = "54"
            value = "14"></meter> 54
         <p>Of the 54 responders, 14 (green) would prefer to
         learn Java in the context of Android app development.</p>
      </section>
 </body>
</html>
```

meter Element

- The *meter* element renders a visual representation of a measure within a range.
- The *meter* element defines a scalar measurement within a known range, or a fractional value. This is also known as a gauge.
- IE not supported

Page-Structure Elements


```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8">
      <title>New HTML5 Section Elements</title>
   </head>
   <body>

      <footer>
      <h6>&copy; 1992-2012 by Deitel &amp; Associ<wbr>ates, Inc.
            All Rights Reserved.<h6>
         <address>
            Contact us at <a href = "mailto:deitel@deitel.com">
            deitel@deitel.com</a>
         </address>
      </footer>
   </body>
</html>
```

footer Element

- The *footer* element describes a footer-content that usually appears at the bottom of the content or section element.

address Element

- The *address* Element defines the contact information for the author/owner of a document or an article.
- If the *address* element is inside the *body* element, it represents contact information for the document.
- If the *address* element is inside an *article* element, it represents contact information for that article.

wbr Element

- The *wbr* element indicates the appropriate place to break a word when the text wraps to multiple lines.
- You might use wbr to prevent a word from breaking in an awkward place.
- When a word is too long, or you are afraid that the browser will break your lines at the wrong place, you can use the *wbr* element to add word break opportunities.
- IE not supported

Q&A