

# HTML5

# FORMS

The new HTML 5 form elements and attributes are designed to **take some of the hassle out of scripting forms** - to allow authors to perform some of this functionality natively.

New form  
attributes

# The autocomplete attribute

The **autocomplete attribute** specifies whether the form control should allow autocomplete values (based on values that the user has entered before).

The possible values are  
“on” (autocomplete allowed) or  
“off” (autocomplete not allowed).  
The **default value** for  
autocomplete (if not defined) is  
“on”.

```
<input autocomplete="on" type="password">
```

```
<input autocomplete="off" type="password">
```

# Browser support

Firefox	4+
Safari	5.2+
Safari iOS	6+
Chrome	14+
Opera	10.6+
Internet Explorer	11+



# The autofocus attribute

The **autofocus attribute** is a boolean attribute that specifies whether a form control should be focused on page load.

The first input in source order that has the autofocus attribute will be focused on page load. The browser will **scroll the page** to the field that has autofocus.

```
<input autofocus type="text">
```

# Browser support

Firefox	4+
Safari	5+
Safari iOS	Not supported at 5
Chrome	6+
Opera	11+
Internet Explorer	10+

The **form** attribute

The **form attribute** specifies whether a form control is associated with a specific form - even a form in which they're not nested.

```
<form>  
  <input form="mainForm" type="text">  
</form>
```

```
<form id="mainForm">  
  ...  
</form>
```



# Browser support

Firefox	?
Safari	?
Safari iOS	?
Chrome	?
Opera	?
Internet Explorer	?

The **list** attribute

The **list attribute** defines which  
<datalist> will be used.

When an an input with a list attribute that **matches a corresponding datalist element** comes into focus, a dropdown menu appears populated by the option elements present in the datalist.

```
<input list="fruit">  
<datalist id="fruit">  
  <option value="Orange">  
  <option value="Apple">  
  <option value="Banana">  
</datalist>
```

# Browser support

Firefox	4+
Safari	Not supported at 7
Safari iOS	Not supported at 7
Chrome	20+
Opera	9+
Internet Explorer	10+

The min and max  
attribute

The **min and max attributes** define the minimum and maximum value for an `<input>` element.



```
<input min="1" max="5" type="number">
```

# Browser support

Firefox	16+
Safari	5+
Safari iOS	3.2+
Chrome	6+
Opera	10.6+
Internet Explorer	10+

The maxlength  
attribute

The **maxlength attribute** limits the number of characters that an input or textarea can accept.

```
<textarea maxlength="30"></textarea>
```

# Browser support

Firefox	4+
Safari	5+
Safari iOS	4+
Chrome	6+
Opera	11+
Internet Explorer	10+

# The multiple attribute

The **multiple attribute** is a boolean attribute that indicates that the user can specify more than one value.



```
<input multiple type="email">
```

# Browser support

Firefox	3.6+
Safari	5+
Safari iOS	7+
Chrome	6+
Opera	11+
Internet Explorer	10+

# The pattern attribute

The **pattern attribute** specifies a regular expression that must be matched in order for the form data to be valid.

```
<input pattern="[0-9][A-Z]{3}" type="text">
```

# Browser support

Firefox	4+
Safari	5+
Safari iOS	5+
Chrome	10+
Opera	11+
Internet Explorer	10+

# The placeholder attribute

The **placeholder attribute** allows us to display a short description inside specific form controls. This text disappears when the field is in focus.



```
<input placeholder="add address" type="text">
```

The **placeholder attribute** should not be used as a replacement for the label element.

# Browser support

Firefox	4+
Safari	4+
Safari iOS	4+
Chrome	10+
Opera	11.1+
Internet Explorer	10+

The required  
attribute

The **required attribute** is a boolean attribute that instructs the browser to submit the form only when the field is filled out correctly.

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

# Browser support

Firefox	6+
Safari	5+
Safari iOS	4+
Chrome	6+
Opera	10.6+
Internet Explorer	10+

The **step** attribute



The **step attribute** controls the level of granularity of an input.

```
<input type="number" step="5">
```

# Browser support

Firefox	16+
Safari	5+
Safari iOS	3.2+
Chrome	6+
Opera	10.6+
Internet Explorer	10+

New input types

In HTML 4.01, we had **10 different input types**:

```
<input type="text">  
<input type="password">  
<input type="checkbox">  
<input type="radio">  
<input type="submit">  
<input type="reset">  
<input type="file">  
<input type="hidden">  
<input type="image">  
<input type="button">
```

In HTML 5, we now have **13**  
**additional input types:**

```
<input type="search">  
<input type="email">  
<input type="url">  
<input type="tel">  
<input type="number">  
<input type="range">  
<input type="color">  
<input type="date">  
<input type="month">  
<input type="week">  
<input type="time">  
<input type="datetime">  
<input type="datetime-local">
```



1. search

The **search** input type specifies a search field.

```
<input type="search">
```

# Browser support

Firefox	4
Safari	5
Safari iOS	4
Chrome	6+
Opera	10.6+
Internet Explorer	10

## 2. email

The **email** input type specifies one or more email addresses.

```
<input type="email">
```

# Browser support

Firefox	4+
Safari	5+
Safari iOS	3.1+
Chrome	10+
Opera	10.6+
Internet Explorer	10+



3. url

The **url** input type specifies a web address.

```
<input type="url">
```

# Browser support

Firefox	4+
Safari	5+
Safari iOS	3.1+
Chrome	10+
Opera	10.6+
Internet Explorer	10+

4. tel

The **tel** input type specifies a telephone number.

```
<input type="tel">
```

# Browser support

Firefox	4+
Safari	5+
Safari iOS	3.1+
Chrome	6+
Opera	10.6+
Internet Explorer	10+



5. number

The **number** input type specifies a number. This form control allows users to click on the up or down arrows to select the desired number.

```
<input type="number">
```

# Browser support

Firefox	29+
Safari	5+
Safari iOS	3.2+
Chrome	7+
Opera	9+
Internet Explorer	10+

## 6. range

The **range** input type specifies a slider control. The range input should be used when the exact number is unimportant.

```
<input type="range">
```

# Browser support

Firefox	23+
Safari	4+
Safari iOS	5+
Chrome	6+
Opera	11+
Internet Explorer	10+



## 7. color

The **color** input type specifies a color picker.

```
<input type="color">
```

# Browser support

Firefox	29+
Safari	8+
Safari iOS	No support at 8+
Chrome	20+
Opera	11+
Internet Explorer	No support at 11

8. date

The **date** input type specifies a date that does not include a time.

```
<input type="date">
```

# Browser support

Firefox	No support at 32
Safari	No support at 7
Safari iOS	5+
Chrome	20+
Opera	15+
Internet Explorer	No support at 11



9. week

The **week** input type specifies the year and week only.

```
<input type="week">
```

# Browser support

Firefox	No support at 32
Safari	No support at 7
Safari iOS	5+
Chrome	20+
Opera	15+
Internet Explorer	No support at 11

10. month

The **month** input type specifies the year and month only.

```
<input type="month">
```

# Browser support

Firefox	No support at 32
Safari	No support at 7
Safari iOS	5+
Chrome	20+
Opera	15+
Internet Explorer	No support at 11



11. time

The **time** input type specifies the time.

```
<input type="time">
```

# Browser support

Firefox	No support at 32
Safari	No support at 7
Safari iOS	5+
Chrome	20+
Opera	15+
Internet Explorer	No support at 11

## 12. datetime

The **datetime** input type specifies a year, date and Coordinated Universal Time (UTC).

```
<input type="datetime">
```

# Browser support

Firefox	No support at 32
Safari	No support at 7
Safari iOS	5+
Chrome	20+
Opera	15+
Internet Explorer	No support at 11



## 13. datetime-local

The **datetime-local** input type specifies a year, date and local time.

```
<input type="datetime-local">
```

# Browser support

Firefox	No support at 32
Safari	No support at 7
Safari iOS	5+
Chrome	20+
Opera	15+
Internet Explorer	No support at 11

# New form elements

data**list** element

The **<datalist> element** defines a list of options. Use this element together with the input element.

```
<input list="fruit">  
<datalist id="fruit">  
  <option value="Orange">  
  <option value="Apple">  
  <option value="Banana">  
</datalist>
```



# Browser support

Firefox	4+
Safari	Not supported at 7
Safari iOS	Not supported at 7
Chrome	20+
Opera	9+
Internet Explorer	10+

keygen element

The **keygen element** specifies a key pair generator field used for forms. When the form is submitted, the private key is stored locally, and the public key is sent to the server.

```
<label>Encryption:</label>  
<keygen name="security">
```

# Browser support

Firefox	3.6+
Safari	4+
Safari iOS	Not supported at 7
Chrome	6+
Opera	10.6+
Internet Explorer	Not supported at 11

output element

The **<output> element** represents the result of a calculation (like one performed by a script).

```
<output name="result"  
onforminput="value=numa.valueAsNumber +  
numb.valueAsNumber"></output>
```



# Browser support

Firefox	4+
Safari	5.1+
Safari iOS	5+
Chrome	10+
Opera	Not supported at 11
Internet Explorer	10+

progress element

The **<progress> element** is used to display the progress of a time consuming function in JavaScript - such as the progress of a download.

```
<progress>  
  <span id="objprogress">76</span>  
</progress>
```

# Browser support

Firefox	6+
Safari	5.2+
Safari iOS	7+
Chrome	6+
Opera	10.6+
Internet Explorer	10+

meter element

The **<meter> element** defines a measurement. Used only for measurements with a known minimum and maximum value.

```
<meter value="2" min="0" max="10">  
  2 out of 10  
</meter>
```



# Browser support

Firefox	16+
Safari	5.2+
Safari iOS	Not supported at 7
Chrome	8+
Opera	11+
Internet Explorer	Not supported at 11

Exercise 4:  
add HTML5 form  
elements and  
attributes

Add all relevant HTML5 form attributes and elements as per the red comments inside brackets



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