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".

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

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.

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

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.

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


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

The list attribute

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

When 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>
```

The min and max attribute

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

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

The maxlength attribute

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

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

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">
```

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">
```

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.

```html
<input placeholder="Add address" type="text">
```

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

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">
```

The step attribute

The `step` attribute **controls the level of granularity** of an `<input>` element.

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

New input types

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

```html
<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 **9 additional input types**:

```html
<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="time">
```

1. search

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

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

2. email

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

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

3. url

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

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

4. tel

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

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

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.

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

6. range

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

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

7. color

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

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

8. date

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

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

9. time

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

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

New form elements

datalist element

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

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

output element

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

```
<output for="value" name="value" form="value">
</output>
```

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

meter element

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

```html
<meter value="2" min="0" max="10" low="1" high="10"
optimal="4" form="value">
  2 out of 10
</meter>
```

Exercise 4: add HTML5 form elements and attributes

Open **exercise04-forms/exercise4-start.htm**

Review your work against **exercise4-forms/exercise04-finished.htm**

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