

# HTML5 Form & Validation

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## □ Defines a form to collect user input

```
<form name="..." action="..." method="...>  
    <!-- các thành phần của Form -->  
</form>
```

## □ Form attributes:

- NAME : FORM name
- ACTION : defines the action to be performed when the form is submitted
- METHOD : specifies the HTTP method (POST or GET) to be used when submitting the form data



## □ Different types of input elements:

- Text field
- Password field
- Hidden Text field
- Check box
- Radio button
- File Form Control
- Submit Button, Reset Button, Generalized Button
- Multiple-line text field
- Label
- Pull-down menu
- Scrolled list
- Field Set

# <input type="...">

- text/password/hidden       month
- radio / checkbox       number
- submit / reset /  
button       range
- file       search
- color       tel
- date       time
- datetime-local       url
- email       week

# Input Type Text

- Defines a one-line text input field
- Example

```
<input type="text" name="txtName" placeholder="Enter  
your name here" value="" >
```



A screenshot of a web browser showing a single-line text input field. The placeholder text "Enter your name here" is displayed in a light gray, sans-serif font within the field's boundaries.

# Input Type Password

- Creates a single-line text entry control
- The text will not be displayed as the user enters it
- Example

```
<input type="Password" name="txtPassword"  
value="123456abc1234">
```

password field :

# Input type Hidden

- Create a hidden control used to transmit state information about client/server interactions
- Example:

```
hidden text field : <input type="hidden"  
name="txtHidden" value="This is hidden  
text. You can not see.">
```

hidden text field :

# Input type Checkbox

HTML

## □ Syntax

```
<input
      TYPE      = "checkbox"
      NAME     = "text"
      VALUE    = "text"
      [checked]
>
```



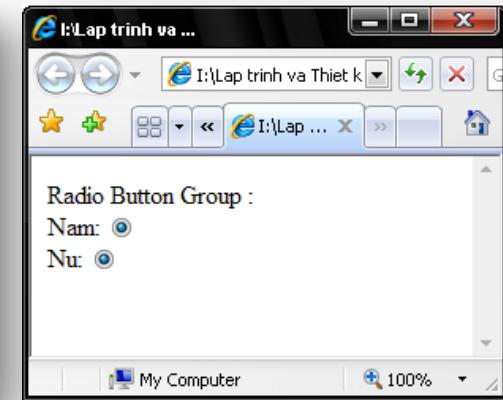
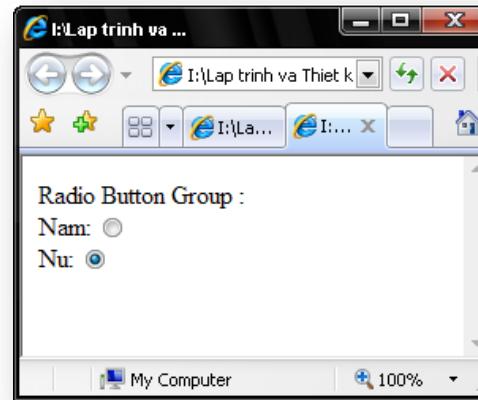
## □ Example

```
<html>
  <body>
    Check box group : <br>
    Anh van: <input type="checkbox" name="Languages" value="En"><br>
    Hoa: <input type="checkbox" name="Languages" value="Chz" checked><br>
    Nhut: <input type="checkbox" name="Languages" value="Jp"><br>
  </body>
</html>
```

# Input Type Radio

## □ Syntax

```
<input
      TYPE      = "radio"
      NAME     = "text"
      VALUE    = "text"
      [checked]
>
```



## □ Example

```
<html>
  <body>
    Radio Button Group : <br>
    Nam: <input type="radio" name="sex" value="nam" checked><br>
    Nu: <input type="radio" name="sex" value="nu" checked><br>
  </body>
</html>
```

```
<html>
  <body>
    Radio Button Group : <br>
    Nam: <input type="radio" name="sex1" value="nam" checked><br>
    Nu: <input type="radio" name="sex2" value="nu" checked><br>
  </body>
</html>
```

# Input Type File

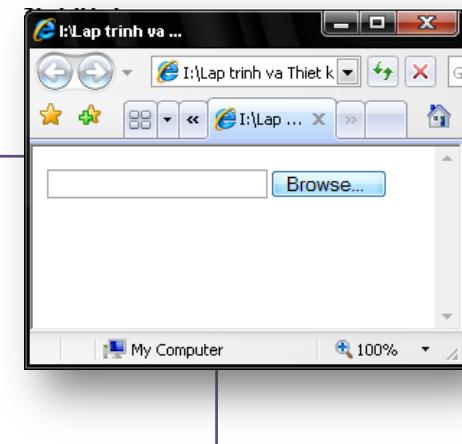
- Creates a file upload object with a textbox and Browse Button
- Must be enclosed within a FORM element

```
<form action="..." method="post" enctype="multipart/form-data"  
name="...">>  
    <input TYPE="FILE" NAME="..." accept="..."/>  
</form>
```

- Accept file extension: audio/\*, video/\*, image/\* ...

- Example

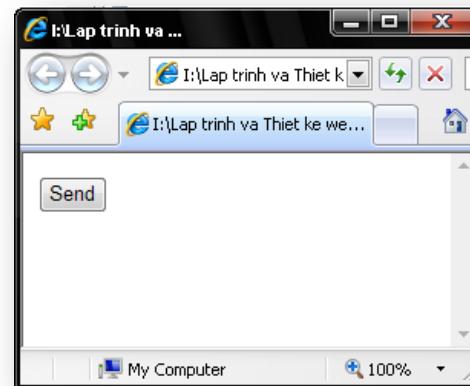
```
<html>  
<body>  
    <form name="frmMain" action="POST" enctype="multipart/form-data">  
        <input type="file" name="fileUpload">  
    </form>  
</body>  
</html>
```



# Input Type Submit

- Creates a button that, when clicked, submits the form
- Example:

```
<input type="submit" name="btnSend" value="Send">
```



# Input Type Reset

- Creates a button that, when clicked, resets the form's controls to their initial values
- Example

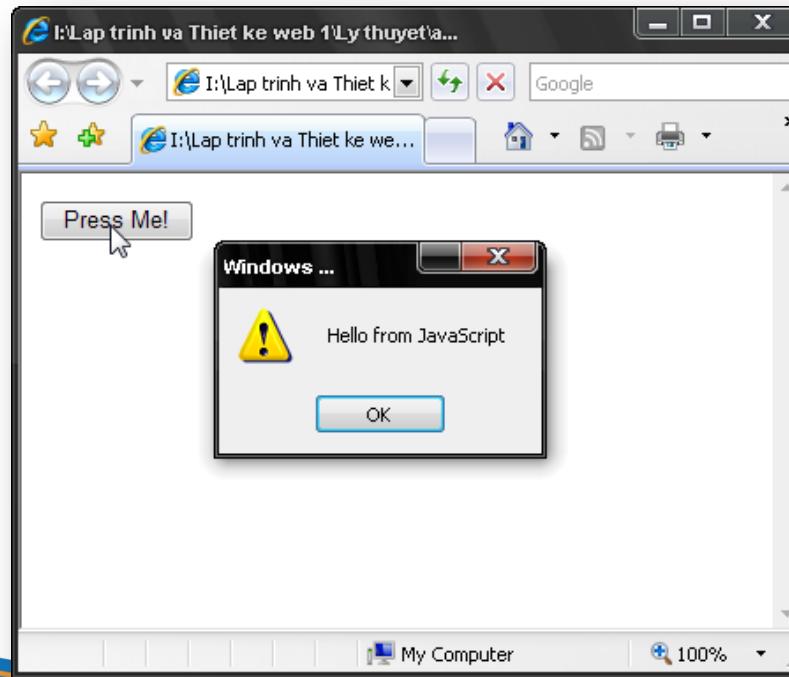
```
<input type="reset" name="btnReset" value="Reset">
```



# Input Type Button

- Creates a generalized button
- Example

```
<input type="button" name="btnNormal" value="Press Me!"  
       onclick="alert('Hello from JavaScript');" >
```



- Specifies a multiline text input control

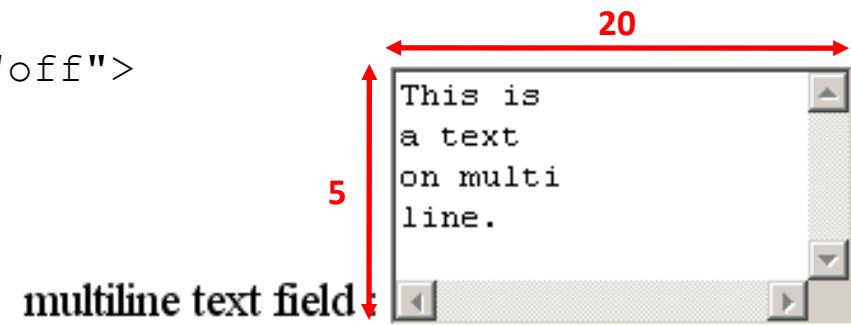
## <TEXTAREA>

COLS	= long
ROWS	= long
DISABLED	
NAME	= string
readonly	
TABINDEX	= integer
WRAP	= OFF   PHYSICAL   VIRTUAL> .....

## </TEXTAREA>

- Example

```
<textarea cols="20" rows="5" wrap="off">  
    This is a text on multiline.  
</textarea>
```



- Defines a label for a Form control
- If the user clicks on the text within the <label> element, it toggles the control
- Syntax

```
<LABEL  
    FOR = IDString  
    CLASS=string  
    STYLE=string  
>
```

Anh văn:

- Example

```
<label for="Languages">Anh văn: </label>  
<input type="checkbox" name="Languages" id="Languages" value="Eng">
```

# The <Select>

- Defines a drop-down list
- Syntax

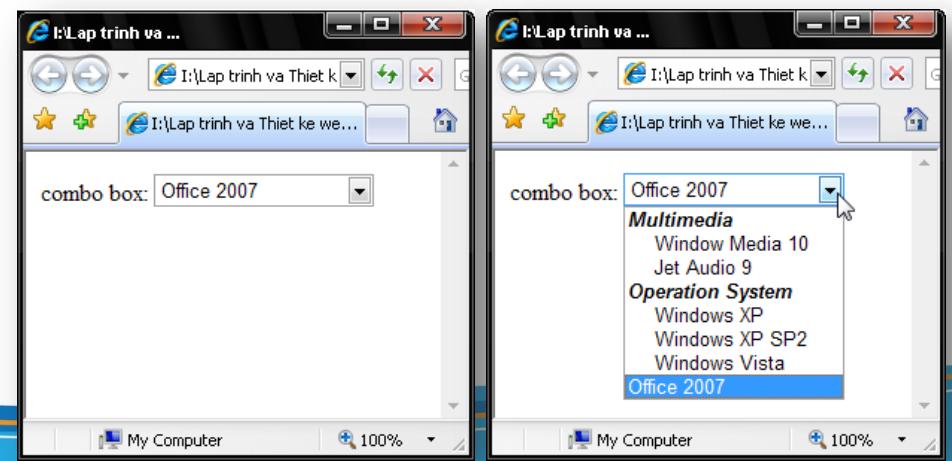
```
<Select name="..." size="..." [multiple]>
    <optgroup label="...">
        <option [selected] value="..." >.....</option>
        .....
    </optgroup>
    <option [selected] value="..." >.....</option>
    .....
</select>
```

# Pull-down Menu

```

<html>
  <body>
    combo box:
    <select name="DSSoftware">
      <optgroup label="Multimedia">
        <option value="WM10">Window Media 10</option>
        <option value="JA9">Jet Audio 9</option>
      </optgroup>
      <optgroup label="Operation System">
        <option value="WXP">Windows XP</option>
        <option value="WXPSP2">Windows XP SP2</option>
        <option value="WVT">Windows Vista</option>
      </optgroup>
      <option selected value="Office07">Office 2007</option>
    </select>
  </body>
</html>

```



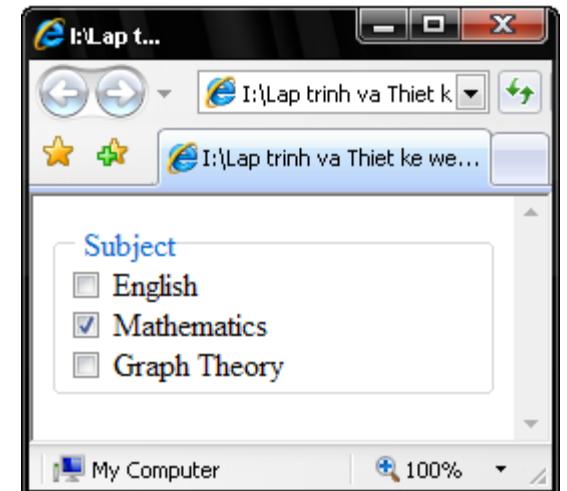
# The <FieldSet>

- Groups related elements in a form
- Syntax

```
<fieldset>
    <legend>GroupBox's Name</legend>
    <input .....>
    ...
</fieldset>
```

- Ví dụ

```
<html>
<body>
    <fieldset>
        <legend>Subject</legend>
        <input type="checkbox" name="Subjects" value="Eng"> English<br>
        <input type="checkbox" name="Subjects" value="Math" checked> Mathematics<br>
        <input type="checkbox" name="Subjects" value="GraphTheory"> Graph Theory<br>
    </fieldset>
</body>
</html>
```



# Input Restrictions

Attribute	Description
disabled	Specifies that an input field should be disabled
max	Specifies the maximum value for an input field
maxlength	Specifies the maximum number of character for an input field
min	Specifies the minimum value for an input field
pattern	Specifies a regular expression to check the input value against
readonly	Specifies that an input field is read only (cannot be changed)
required	Specifies that an input field is required (must be filled out)
size	Specifies the width (in characters) of an input field
step	Specifies the legal number intervals for an input field
value	Specifies the default value for an input field





# The “required” attribute

HTML

```
Your Name: <input type="text" name="name" required>
```

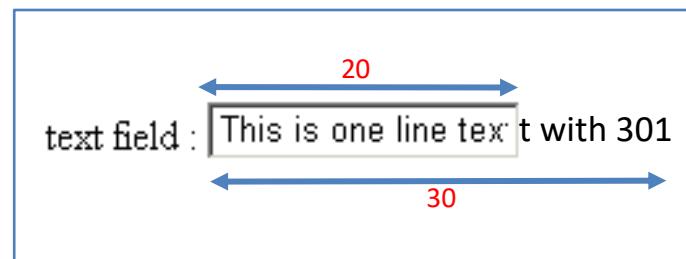
Your Name:



# Size & Max Length Attributes



- <input type="text" name="txtName" value="This is one line text with 301" size="20" maxlength="30">



# Min & Max Attributes

```
Age: <input type="number" size="6" name="age" min="18" max="99" value="21"><br>
Satisfaction: <input type="range" size="2" name="satisfaction" min="1" max="5" value="3">
```

Age:

Satisfaction:  (1-5)

# Input patterns

## URL input pattern:

```
input type="url" pattern="https?://.+"
```

## IPv4 Address input pattern:

```
input type="text" pattern="\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}"
```

## Date input pattern (dd/mm/yyyy or mm/dd/yyyy):

```
input type="text" pattern="\d{1,2}/\d{1,2}/\d{4}"
```

# Input patterns

**Price input pattern:**

```
input type="text" pattern="\d+(\.\d{2})?"
```

**Latitude/Longitude input pattern:**

```
input type="text" pattern="-?\d{1,3}\.\d+"
```

To match a double-quote ("") inside a pattern you can use the hex encoding \x22.

# References

- [www.w3schools.com](http://www.w3schools.com)
- <https://www.the-art-of-web.com/html/html5-form-validation/>