



# Web Programming

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**Login**

Username  
Type your username

Password  
Type your password

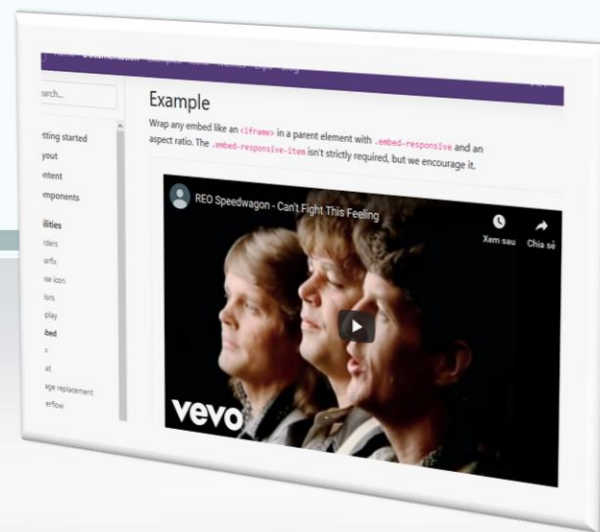
[Forgot password?](#)

**LOGIN**

Or Sign Up Using

[f](#) [t](#) [G](#)

Have not account yet?  
**SIGN UP**



# HTML Form and Frame

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A login form overlay with a dark background on the left and a white background on the right. The dark background features a laptop with the text "Welcome Back" and "Please log in using your personal information to stay connected with us." The white background has a "LOGIN" title, an "Email" input field, a "Password" input field with an eye icon, a "Forgot password?" link, a "Log In" button, and a "Don't have an account? Signup" link.

# 1. HTML Form

Entering User Data from a Web Page

# What is a HTML Form?

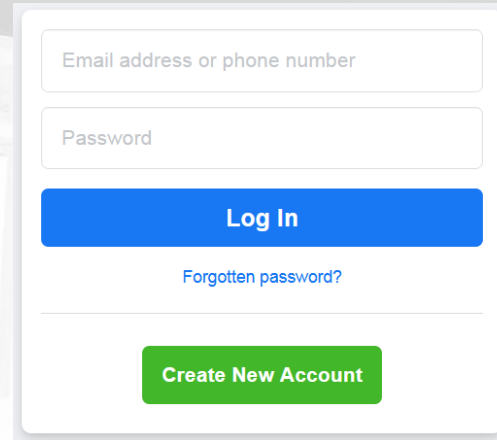
- The **primary method for gathering data** from site visitors

- HTML Form can contain:

- Text fields for the user to type
- Buttons for interactions like  
“Register”, “Login”, “Search”
- Menus, Sliders, etc.

- Check Google, Yahoo! Search, Bing

Google search field is a simple Text field



Email address or phone number

Password

Log In

[Forgotten password?](#)

Create New Account

# How to Create a HTML Form?

- Create a form block with `<form></form>`
  - The “**action**” attribute tells where the form data should be sent
  - The “**method**” attribute tells how the form data should be sent – via **GET** or **POST** request
  - The “**enctype**” attribute specifies how the form-data should be encoded when submitting it to the server. (**Note:** It can be used only if method="post")
    - ✓ application/x-www-form-urlencoded: Default
    - ✓ multipart/form-data: is used if a file will be uploaded through the form

- Example:

```
<form name="myForm" method="post" action="path/to/some-script.php">  
    ...  
</form>
```

# HTTP GET and POST method

GET Method	POST Method
Appends form-data into the <b>URL</b> in <b>name/value</b> pairs	Appends form-data inside the body of the HTTP request
The length of a URL is <b>limited</b>	Has no size limitations
Useful for form submissions where a user wants to <b>bookmark</b> the result	Form submissions with POST cannot be bookmarked
<b>Never use GET to send sensitive data!</b> (will be visible in the URL)	

**GET is better for non-secure data**, like query strings in Google

# HTTP GET Method

- When you submit a form, the URL will appear in the browser address bar like the following:  
**Domain\_name?name=value[&name<sub>n</sub>=value<sub>n</sub>]**

- The data is appended to the URL as a series of **name/value** pairs. After the URL web address has ended, we include **a question mark (?)** followed by the name/value pairs, **each one separated** by an **ampersand (&)**.



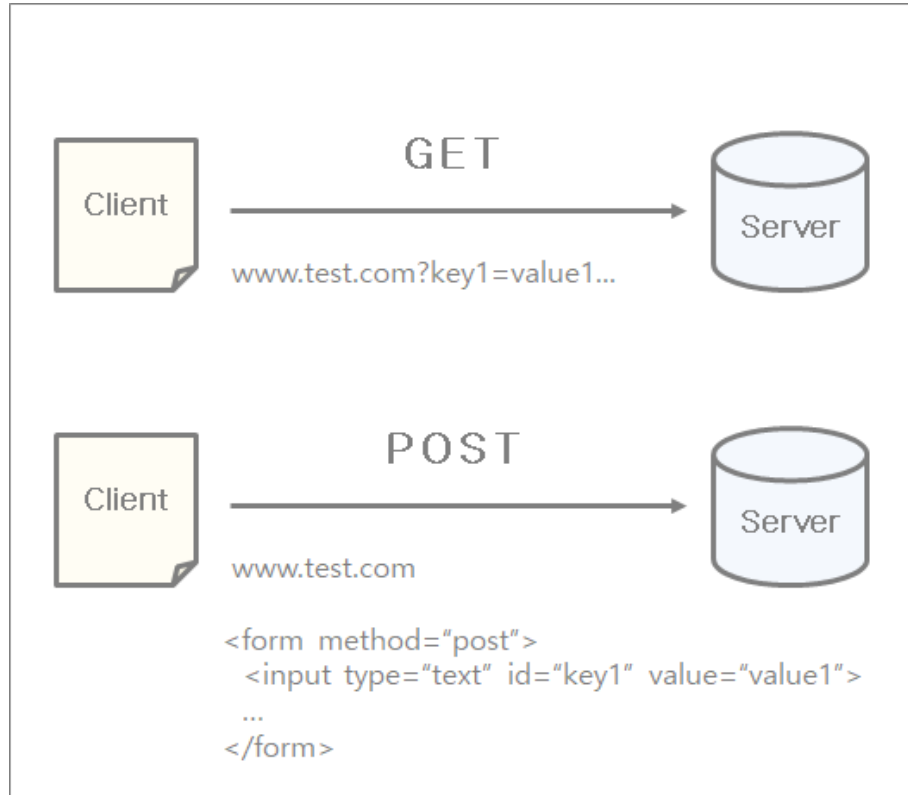
# HTTP POST Method

If a form is sent using this method, the data is appended to the body of the HTTP request.

```
POST / HTTP/2.0
Host: foo.com
Content-Type: application/x-www-form-urlencoded
Content-Length: 13

say=Hi&to=Mom
```

# HTTP GET and POST method





Email address

Password

Example textarea

# Text Fields

# Text Fields

- **Single-line** text input field:

```
<input type="text" name="Name" value="Default value" maxlength="100" />
```

- **Multi-line** text input field (**textarea**):

```
<textarea name="Content" cols="30" rows="10">  
    This is a multi-line text field  
</textarea>
```

- **Password** input – a text field which masks the entered text with \* signs

```
<input type="password" name="pass" />
```

# Text Fields

- The “**name**” attribute is used to reference elements in the JavaScript language, or to **reference form data after a form is submitted**
- **Note:** Only form elements with a name attribute will have their values passed when submitting a form

# Buttons

- **Reset** button – brings the form to its initial state

```
<input type="reset" name="resetBtn" value="Reset the form" />
```

- **Submit** button:

```
<input type="submit" value="Send" />
```

- **Ordinary** button – no default action, used with JavaScript

```
<input type="button" value="Click me" />
```

- **Image** button – acts like submit but image is displayed and click coordinates are sent

```
<input type="image" src="image.jpg" name="submitBtn" alt="Submit" />
```

# Buttons

## HTML5

- The **<button>** tag defines a button
- Inside a <button> element you **can put content**, like text or images

```
<button type="button">Click Me!</button>
```

- **Values of the type** attribute:
  - Button
  - Reset
  - Submit



### Hobbies:

- ☒ Astrology
- ☐ Astronomy
- ☒ Cooking
- ☒ Dancing
- ☐ Numerology
- ☐ Painting
- ☒ Palmistry
- ☐ Photography
- ☐ Music

### Marital Status:

- ☐ Single
- ☒ Married
- ☐ Widowed
- ☐ Divorced

# Checkbox and Radio



# Checkbox and Radio Button

- **Checkbox:**

```
<input type="checkbox" name="Hobby[]" value="Dancing" />  
<input type="checkbox" name="Hobby[]" value="Shopping" checked />
```

- **Radio button:**

Radio buttons can be grouped, allowing **only one** to be selected from a group:

```
<input type="radio" name="Title" value="Mr." />  
<input type="radio" name="Title" value="Ms." checked />
```

# Hidden Field

- Hidden field **contains invisible data**

```
<input type="hidden" name="UserID" value="1" />
```

- Not shown to the user
- Used by **JavaScript** and **server-side** code

ViewState, SessionState in ASP.NET



Example select

1



Example multiple select

1

2

3

4



# Select Fields

# Select Fields

- **Dropdown** menu:

```
<select name="gender">
  <option value="Value 1" selected="selected">Male</option>
  <option value="Value 2">Female</option>
  <option value="Value 3">Other</option>
</select>
```

- **Multiple-choice** menu:

```
<select name="products" multiple="multiple">
  <option value="Keyboard">Keyboard</option>
  <option value="Mouse">Mouse</option>
  <option value="CPU" selected="selected">CPU</option>
  <option value="RAM">RAM</option>
</select>
```



Example file input

Choose File No file chosen



Drag&Drop files here

or

Browse Files

# Upload Field

# Upload field

- The **<input type="file">** defines a file-select field and a “Browse” button for file uploads.
- When the “**multiple**” Boolean attribute is specified, the file input allows the user to select more than one file.
- The **accept** attribute defines the file types the file input should accept.
  - accept =“.doc,.docx,.xml,application/msword,application/vnd.openxmlformats-officedocument.wordprocessingml.document”: Microsoft Word files
  - accept =“.jpg, .pdf, .jpeg, image/.png”
  - accept=“audio/\*, video/\*, image/\*”
- E.g.

```
<input type="file" name="file" accept=".jpg, .jpeg, .png" />  
<input type="file" name="files" multiple accept="image/*,.pdf" />
```



Email address

We'll never share your email with anyone else.

Password

☐ Check me out

Submit

# Label

# Label

- Label is used to **associate an explanatory text to a form field** using the field's ID

```
<label for="fn">First Name</label>  
<input type="text" id="fn" />
```

- Clicking on a label **focuses** its associated field
  - Checkbox is **toggled**
  - Radio button is **checked**
- Label is both a **usability** and **accessibility** feature





Web browser window showing a document titled "Title of the document" and the URL <https://www.w3docs.com>.

**Personal Information:**

Name:

Email:

Date of birth:

Place of birth:

# Fieldset

# Fieldset

- Fieldset is used to **enclose a group** of related form fields:

```
<form method="Post" action="process.php">
  <fieldset>
    <legend>Client Details</legend>
    <input type="text" name="Name" />
    <input type="text" name="Phone" />
  </fieldset>
  <fieldset>
    <legend>Order Details</legend>
    <input type="text" name="Quantity" />
    <textarea cols="40" rows="10" name="Remarks"></textarea>
  </fieldset>
</form>
```

- The **<legend>** is the fieldset's title



The figure shows three spinbox controls, each consisting of a rectangular box displaying a number and a vertical slider with up and down arrows to its right. The values displayed are 63, 255, and 127, each in a different color (blue, orange, and red respectively).

# Slider and Spinbox

# Range and Spinbox

- Restrict users to enter only numbers
  - Additional attributes **min**, **max** and **step** and **value**
  - Become **Spinbox** or **Slider**, depending on the input type

```
<input type="range" min="0" max="100" />
```

```
<input type="number" min="0" max="100" />
```

- Have some **differences** on **different browsers**



First name Last name Username

Mark Otto @

City State

Choose...

☐ Agree to terms and conditions

Submit form

Please fill out this field.

# HTML5 Attributes and Validation

# Field Attributes from HTML 5

- **Required**

The field is required to be filled/selected

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

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

- **Placeholder**

The attribute specifies a hint that describes the expected value of its field

```
<input type="text" name="username" placeholder="Your text (a short hint)">
```

- **Autofocus**

The field becomes on focus on page load

```
<input type="text" name="UserName" autofocus="autofocus" />
```

# Input Field with Validation

- **Email** – provides a simple validation for email
  - Can be passed a pattern for validation
  - In a mobile device brings the email keyboard

```
<input type="email" required="true" pattern="^[^ @]*@[^ @].[^ @]"/>
```

- **URL** – has validation for url
  - In a mobile device brings the url keyboard

```
<input type="url" required="true" />
```

- **Telephone**
  - In a mobile device brings the numeric keyboard

```
<input type="tel" required="true" />
```

# Value List of Type Attribute of <input> Tag

- Text
- Email
- Password
- Hidden
- Checkbox
- Radio
- File
- Button
- Date
- Datetime-local
- Submit

- Reset
- Number
- Tel
- Color
- Url
- Range
- Search
- Image
- Month
- Time
- Week

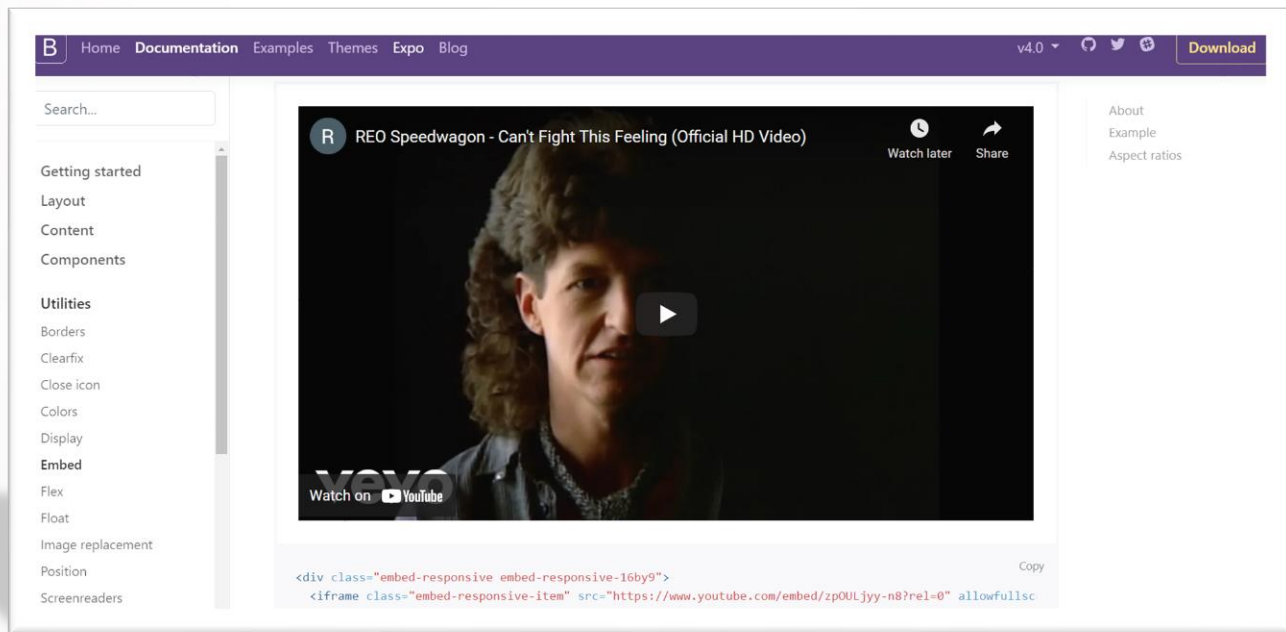
**View more:** [https://www.w3schools.com/tags/att\\_input\\_type.asp](https://www.w3schools.com/tags/att_input_type.asp)



# Common attributes of <input> Tag

Source: [https://www.w3schools.com/tags/tag\\_input.asp](https://www.w3schools.com/tags/tag_input.asp)

Attribute	Value	Description
checked	checked	Specifies that an <input> element should be <b>pre-selected</b> when the page loads (for type="checkbox" or type="radio")
maxlength	number	Specifies the <b>maximum number of characters</b> allowed in an <input> element
minlength	number	Specifies the minimum number of characters required in an <input> element
name	text	Specifies the name of an <input> element
placeholder	text	Specifies a short hint that describes the expected value of an <input> element
readonly	readonly	Specifies that an input field is read-only
required	required	Specifies that an input field must be filled out before submitting the form
type	...	Specifies the type <input> element to display
value	text	Specifies the value of an <input> element



## 2. HTML inline Frame

<iframe>

# Inline Frame

<iframe>

Inline frame provides a way to **show one website inside another website.**

```
<iframe  
  src="https://vnexpress.net"  
  width="600"  
  height="400"  
  frameborder="yes"  
  scrolling="yes"  
></iframe>
```

# Inline Frame

## Embed Google Map

The image shows a Google Maps interface on a mobile device. The main screen displays the Eastern International University location, including a photo of the building, the name 'Eastern International University', and details like 'Đại học Quốc tế Miền Đông', a 4.5-star rating, and 223 reviews. The 'Share' button is highlighted with a red box and the number 2. A 'Share' dialog box is open, showing the 'Embed a map' option selected with a red box and the number 3. The dialog box displays the embed code: `<iframe src="https://www.google.com/maps/embed?pb=!1m18!1m12" data-bbox="388 375 615 395"></iframe>`. A 'COPY HTML' button is also visible with a red box and the number 4. The background map shows the university campus with labels like 'Đại học Quốc tế Miền Đông', 'Trung Tâm Ngoại Ngữ Trường ĐH Quốc...', and 'Caffe Chats IUI Campus'.

Share

Send a link

Embed a map

Medium

`<iframe src="https://www.google.com/maps/embed?pb=!1m18!1m12" data-bbox="388 375 615 395"></iframe>`

COPY HTML

Eastern International University

Nam Kỳ Khởi Nghĩa, Định Hoà, Thủ Dầu Một, Bình Dương

4.5 ★★★★★ 223 reviews

View larger map

Đại học Quốc tế Miền Đông

Map data ©2021 Terms of Use Report a map error

By embedding this map, you agree to the [terms of service](#).

# Inline Frame

Embed YouTube Video

The image shows a YouTube video player interface. A share menu is open, displaying various sharing options: Embed, WhatsApp, Facebook, Twitter, Email, and 카카오톡 (KakaoTalk). The 'Embed' option is highlighted with a red box and a red number '2'. Below the share menu, the video URL is displayed: <https://youtu.be/xy pzmu5mMPY>. The video player itself shows a video titled 'SON TÙNG M-TP | MUỘN RỒI MÀ SAO CÒN | OFFICIAL MUSIC VIDEO' with 72,884,359 views. The 'SHARE' button at the bottom of the video player is also highlighted with a red box and a red number '1'.

Share

Embed WhatsApp Facebook Twitter Email 카카오톡

2

<https://youtu.be/xy pzmu5mMPY> COPY

Start at 0:03

#1 ON TRENDING FOR MUSIC

SON TÙNG M-TP | MUỘN RỒI MÀ SAO CÒN | OFFICIAL MUSIC VIDEO

72,884,359 views • Premiered Apr 29, 2021

2M 56K 1 SHARE SAVE

# Inline Frame

Embed YouTube Video

The screenshot shows a YouTube video player interface. The video title is "SƠN TÙNG M-TP | MUÔN RỒI MÃ SAO CÒN | OFFICIAL MUSIC VIDEO". The video player shows a man sitting on a large, curved, orange structure against a blue sky. The video player has a "Watch later" button and a "Share" button. Below the video player, there is a "Watch on YouTube" button. The video player is overlaid with an "Embed Video" dialog box. The dialog box contains the following HTML code:

```
<iframe width="560" height="315"
src="https://www.youtube.com/embed
/xypzmu5mMPY" title="YouTube video
player" frameborder="0"
allow="accelerometer; autoplay;
clipboard-write; encrypted-media;
gyroscope; picture-in-picture"
allowfullscreen></iframe>
```

The dialog box also has a "Start at" field with a value of "0:03" and a "Show player controls" checkbox which is checked. The dialog box has a "COPY" button at the bottom right.



# Summary

# Exercise

Write the HTML tags of the Lani & Dani webpage.







**Q&A**