

วิชา การเขียนโปรแกรมบนเว็บ

Web Programming : 4122306

บทที่ 3 HTML

ภาคการศึกษา 1/2568



ผู้ช่วยศาสตราจารย์ ดร. นัฐพงศ์ ส่องเนียม
Asst. Prof. Dr. Nattapong Songneam

สาขาวิชาวิทยาการคอมพิวเตอร์
คณะวิทยาศาสตร์และเทคโนโลยี มรภ.พระนคร

Program in Computer Science , Faculty of Science and Technology,
Phranakhon Rajabhat University

Agenda

3.1 ทิวทัศน์ HTML

3.2 HTML Elements

3.3 HTML Attributes

3.4 HTML Styles

3.5 HTML Comments

3.6 HTML Colors

3.7 HTML Styles - CSS

3.8 HTML Links

Agenda

3.9 HTML Images

3.10 HTML Favicon

3.11 HTML Page Title

3.12 HTML Tables

3.13 HTML Lists

3.14 HTML Block and Inline Elements

3.15 HTML Div Element

3.16 HTML class Attribute

Agenda

3.17 HTML JavaScript

3.18 HTML File Paths

3.19 HTML - The Head Element

3.20 HTML Layout

3.21 HTML Responsive Web Design

3.22 HTML Encoding (Character Sets)

3.23 HTML Forms

3.24 HTML Media

แนะนำโปรแกรม Visual Studio Code

The screenshot shows the Visual Studio Code interface with a workspace named 'wp01_PHP.php - Untitled (Workspace)'. The editor displays a file named 'wp01_PHP.php' containing the following code:

```
3
4 <body>
5   <h1>Heading 1</h1>
6   <h2>Heading 2</h2>
7   <h3>Heading 3</h3>
8   <h4>Heading 4</h4>
9   <h5>Heading 5</h5>
10  <h6>Heading 6</h6>
11  <h1 style="font-size:60px;">Heading 1</h1>
12  <?php
13    echo "hello PHP";
14    $money =5;
15    echo "<br>" . $money;
16    ?>
17
```

The 'DEBUG CONSOLE' panel at the bottom shows the output of the code execution:

```
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
<h1 style="font-size:60px;">Heading 1</h1>
hello PHP<br>5

</body>

</html>
```

The status bar at the bottom indicates the current position is 'Ln 13, Col 22', with 'Spaces: 4', 'UTF-8', 'CRLF', and 'PHP' encoding settings.

3.1

ความหมายของ HTML

ความหมายของ HTML

HTML ย่อมาจาก HyperText Markup Language เป็นภาษา Markup ที่ใช้สำหรับสร้างและแสดงผลโครงสร้างของเว็บไซต์หรือหน้าเว็บเพจ

อธิบายแบบเข้าใจง่าย

- HTML เป็น “ภาษาหลัก” ของเว็บไซต์
- ใช้ในการ “กำหนดโครงสร้าง” เช่น หัวข้อ, ย่อหน้า, ตาราง, ลิงก์, รูปภาพ ฯลฯ
- เป็น “ภาษาที่ Browser ทุกตัวเข้าใจ” (Chrome, Firefox, Edge, Safari ฯลฯ)

รายละเอียด

- ไม่ใช่ “ภาษาโปรแกรม” (Programming Language) แต่เป็น ภาษา Markup สำหรับจัดรูปแบบข้อมูล
- โครงสร้างของ HTML จะประกอบด้วย “Tag” ต่างๆ เช่น `<html>`, `<head>`, `<body>`, `<h1>`, `<p>`, `<a>`, `<img>` ฯลฯ
- เมื่อเขียน HTML เสร็จ สามารถเปิดในเว็บเบราว์เซอร์เพื่อดูผลลัพธ์ได้ทันที

3.2

HTML Elements

HTML Elements

The HTML element is everything from the start tag to the end tag:
`<tagname>Content goes here...</tagname>`

ตัวอย่าง (Examples of some HTML elements)

`<h1>My First Heading</h1>`

`<p>My first paragraph.</p>`

`<img>`
`<hr>`
`<br>`

Start tag	Element content	End tag
<code><h1></code>	My First Heading	<code></h1></code>
<code><p></code>	My first paragraph.	<code></p></code>
<code>
</code>	<i>none</i>	<i>none</i>

3.2

HTML Elements

ตัวอย่าง

File : Index.html

```
<!DOCTYPE html>  
<html>  
<body>  
  
<h1>My First Heading</h1>  
<p>My first paragraph.</p>  
  
</body>  
</html>
```

Lab01 > <> test_html_cs66_1.html >  html

1 <!DOCTYPE html>

2 <html>

3

4 <body>

5 <h1>My First Heading</h1>

6 <p>My first paragraph.</p>

7 </body>

8

9 </html>

3.3

HTML Attributes

• 3.3 HTML Attributes

File : Index.html

HTML Attributes

- All HTML elements can have attributes
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: name="value"

The href Attribute

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

```
<a href="https://www.siam2dev.com">Visit siam2dev</a>
```



Lab01 > <> test_html_cs66_1.html > html

```
1  <!DOCTYPE html>
2  <html>
3
4  <body>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.siam2dev.com"> เว็บไซต์ ผศ. ดร. นัฏพงส์ </a>
8  </body>
9
10 </html>
```

target

Lab01 > test_html.html > html > boDy > a

```
1  <!DOCTYPE html>
2  <html>
3
4  <boDy>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7  <a href="http://www.Siam2Dev" target="">สยามทูเดฟ</a>
8  </body>
9
10 </HTML>
```

- _blank
- _parent
- _self
- _top

3.3

HTML Attributes

• 3.3 HTML Attributes

File : Index.html

The src Attribute

The `<img>` tag is used to embed an image in an HTML page. The `src` attribute specifies the path to the image to be displayed:

```

```

There are two ways to specify the URL in the **src** attribute:

1. Absolute URL - Links to an external image that is hosted on another website. Example: `src="https://www.w3schools.com/images/img_girl.jpg"`.

Notes: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; it can suddenly be removed or changed.

2. Relative URL - Links to an image that is hosted within the website. Here, the URL does not include the domain name. If the URL begins without a slash, it will be relative to the current page. Example: `src="img_girl.jpg"`. If the URL begins with a slash, it will be relative to the domain. Example: `src="/images/img_girl.jpg"`.

img

Lab01 > test_html.html > html

```
1  <!DOCTYPE html>
2  <html>
3
4  <body>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8      
9
10 </body>
11
12 </HTML>
```

My First Heading

My first paragraph.



[สยามทูเดฟ](#)

3.3

HTML Attributes

• 3.3 HTML Attributes

File : Index.html

The width and height Attributes

The tag should also contain the width and height attributes, which specify the width and height of the image (in pixels):

```

```

The alt Attribute

The required alt attribute for the tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to a slow connection, or an error in the src attribute, or if the user uses a screen reader.

```

```

3.3

HTML Attributes

• 3.3 HTML Attributes

File : Index.html

The style Attribute

The style attribute is used to add styles to an element, such as color, font, size, and more.

```
<p style="color:red;">This is a red paragraph.</p>
```

The lang Attribute

You should always include the lang attribute inside the <html> tag, to declare the language of the Web page. This is meant to assist search engines and browsers.

```
<!DOCTYPE html>  
<html lang="en">  
<body>  
...  
</body>  
</html>
```

Lab01 > test_html.html > html

```
1  <!DOCTYPE html>
2  <html>
3
4  <body>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8      
9      
10     <p style="color:  red;">This is a red paragraph.</p>
11
12 </body>
13
14 </HTML>
```

3.3

HTML Attributes

• 3.3 HTML Attributes

File : Index.html

The title Attribute

The title attribute defines some extra information about an element.
The value of the title attribute will be displayed as a tooltip when you mouse over the element:

```
<p title="I'm a tooltip">This is a paragraph.</p>
```

```
<!DOCTYPE html>  
<html lang="en">  
<body>  
<p title="I'm a tooltip">This is a paragraph.</p>  
</body>  
</html>
```

My First Heading

My first paragraph.



[สยามทูเดฟ](#)

This is a red paragraph.

This is a paragraph.

I'm a tooltip



```
1  <!DOCTYPE html>
2  <html>
3
4  <body>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8      
9      
10     <p style="color: ■ red;">This is a red paragraph.</p>
11     <p title="I'm a tooltip">This is a paragraph.</p>
12
13 </body>
14
15 </HTML>
```

3.4

HTML Styles

- 3.4 HTML Styles

File : Index.html

The HTML **style** attribute is used to add styles to an element, such as color, font, size, and more.

```
<tagname style="property.value;">
```

```
<body style="background-color:powderblue;">
```

```
<h1>This is a heading</h1>
```

```
<p>This is a paragraph.</p>
```

```
</body>
```

3.4

HTML Styles

- 3.4 HTML Styles

File : Index.html

ตัวอย่าง

- Set background color for two different elements:

```
<body>
```

```
<h1 style="background-color:powderblue;">This is a heading</h1>
```

```
<p style="background-color:tomato;">This is a paragraph.</p>
```

```
</body>
```

```
1  <!DOCTYPE html>
2  <html>
3
4  <boDy>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8      
9      
10     <p style="color: ■ red;">This is a red paragraph.</p>
11     <p title="I'm a tooltip">This is a paragraph.</p>
12     <h1 style="background-color: ■ powderblue;">This is a heading</h1>
13     <p style="background-color: ■ tomato;">This is a paragraph.</p>
14
15 </body>
16
17 </HTML>
```

My First Heading

My first paragraph.



[สยามทูเดฟ](#)

This is a red paragraph.

This is a paragraph.



This is a heading

This is a paragraph.

3.4

HTML Styles

• 3.4 HTML Styles

File : html_colors01.html

Text Color

The CSS **color** property defines the text color for an HTML element:

```
<h1 style="color:blue;">This is a heading</h1>  
<p style="color:red;">This is a paragraph.</p>
```

```
<!DOCTYPE html>  
<html>  
<body>
```

```
<h1 style="color:blue;">This is a heading</h1>  
<p style="color:red;">This is a paragraph.</p>
```

```
</body>  
</html>
```

3.4

HTML Styles

- 3.4 HTML Styles

File : `html_colors02.html`

Fonts

The CSS `font-family` property defines the font to be used for an HTML element:

```
<h1 style="font-family:verdana;">This is a heading</h1>  
<p style="font-family:courier;">This is a paragraph.</p>
```

```
<!DOCTYPE html>  
<html>  
<body>
```

```
<h1 style="font-family:verdana;">This is a heading</h1>  
<p style="font-family:courier;">This is a paragraph.</p>
```

```
</body>  
</html>
```

3.4

HTML Styles

- 3.4 HTML Styles

File : html_styles01.html

Text Size

The CSS font-size property defines the text size for an HTML element:

```
<h1 style="font-size:300%;">This is a heading</h1>  
<p style="font-size:160%;">This is a paragraph.</p>
```

```
<!DOCTYPE html>  
<html>  
<body>
```

```
<h1 style="font-size:300%;">This is a heading</h1>  
<p style="font-size:160%;">This is a paragraph.</p>
```

```
</body>  
</html>
```

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4      <h1>My First Heading</h1>
5      <p>My first paragraph.</p>
6      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
7      
8      
9      <p style="color: ■ red;">This is a red paragraph.</p>
10     <p title="I'm a tooltip">This is a paragraph.</p>
11     <h1 style="background-color: ■ powderblue;">This is a heading</h1>
12     <p style="background-color: ■ tomato;">This is a paragraph.</p>
13     <h1 style="font-size:300%;">This is a heading 300%</h1>
14     <p style="font-size:160%;">This is a paragraph 160%.</p>
15
16 </body>
17 </HTML>
```

3.4

HTML Styles

• 3.4 HTML Styles

File : html_styles02.html

Text Alignment

The CSS text-align property defines the horizontal text alignment for an HTML element:

```
<h1 style="text-align:center;">Centered Heading</h1>  
<p style="text-align:center;">Centered paragraph.</p>
```

```
<!DOCTYPE html>  
<html>  
<body>
```

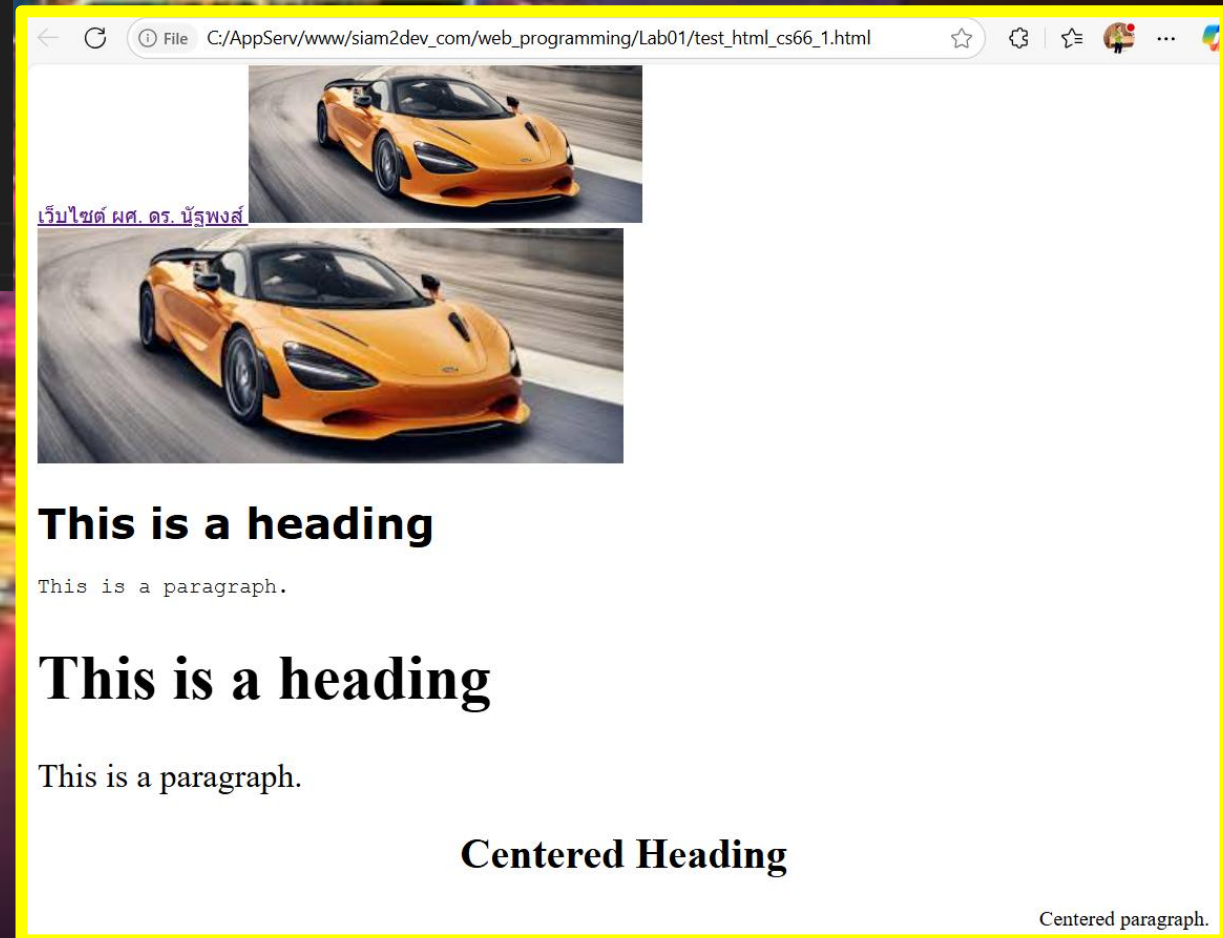
```
<h1 style="text-align:center;">Centered Heading</h1>  
<p style="text-align:center;">Centered paragraph.</p>
```

```
</body>  
</html>
```

```

2 <html>
4 <body>
5   <h1>My first heading</h1>
6   <p>My first paragraph.</p>
7   <a href="http://www.siam2dev.com"> เว็บไซต์ ผศ. ดร. นัฐพงษ์ </a>
8   
9   
10  <h1 style="font-family:verdana;">This is a heading</h1>
11  <p style="font-family:courier;">This is a paragraph.</p>
12  <h1 style="font-size:300%;">This is a heading</h1>
13  <p style="font-size:160%;">This is a paragraph.</p>
14  <h1 style="text-align:center;">Centered Heading</h1>
15  <p style="text-align:right;">Centered paragraph.</p>
16 </body>
17
18 </html>

```



```
1  <!DOCTYPE html>
2  <html>
3
4  <body>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8      
9      
10     <p style="color: red;">This is a red paragraph.</p>
11     <p title="I'm a tooltip">This is a paragraph.</p>
12     <h1 style="background-color: powderblue;">This is a heading</h1>
13     <p style="background-color: tomato;">This is a paragraph.</p>
14     <h1 style="font-size:300%;">This is a heading 300%</h1>
15     <p style="font-size:160%;">This is a paragraph 160%.</p>
16     <h1 style="text-align:center;">Centered Heading</h1>
17     <p style="text-align:center;">Centered paragraph.</p>
18
19 </body>
20 </HTML>
```

My First Heading

My first paragraph.



[สยามทูเดฟ](#)

This is a red paragraph.

This is a paragraph.



This is a heading

This is a paragraph.

This is a heading 300%

This is a paragraph 160%.

Centered Heading

Centered paragraph.

3.6

HTML Colors

- 3.6 HTML Colors

File : **html_colors01.html**

- HTML colors are specified with predefined color names, or with RGB, HEX, HSL, RGBA, or HSLA values.

Color Names

In HTML, a color can be specified by using a color name:



```
<!DOCTYPE html>
<html>
<body>
<h1 style="background-color:Tomato;">Tomato</h1>
<h1 style="background-color:Orange;">Orange</h1>
<h1 style="background-color:DodgerBlue;">DodgerBlue</h1>
<h1 style="background-color:MediumSeaGreen;">MediumSeaGreen</h1>
<h1 style="background-color:Gray;">Gray</h1>
<h1 style="background-color:SlateBlue;">SlateBlue</h1>
<h1 style="background-color:Violet;">Violet</h1>
<h1 style="background-color:LightGray;">LightGray</h1>
</body>
</html>
```

3.6

HTML Colors

• 3.6 HTML Colors

File :

Background Color

```
<h1 style="background-color:DodgerBlue;">Hello World</h1>  
<p style="background-color:Tomato;">Lorem ipsum...</p>
```

Text Color

```
<h1 style="background-color:DodgerBlue;">Hello World</h1>  
<p style="background-color:Tomato;">Lorem ipsum...</p>
```

Border Color

```
<h1 style="border:2px solid Tomato;">Hello World</h1>  
<h1 style="border:2px solid DodgerBlue;">Hello World</h1>  
<h1 style="border:2px solid Violet;">Hello World</h1>
```

```
2  <html>
4  <body>
5      <h1>My First Heading</h1>
6      <p>My first paragraph.</p>
7      <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8      
9      
10     <p style="color: ■ red;">This is a red paragraph.</p>
11     <p title="I'm a tooltip">This is a paragraph.</p>
12     <h1 style="background-color: ■ powderblue;">This is a heading</h1>
13     <p style="background-color: ■ tomato;">This is a paragraph.</p>
14     <h1 style="font-size:300%;">This is a heading 300%</h1>
15     <p style="font-size:160%;">This is a paragraph 160%.</p>
16     <h1 style="text-align:center;">Centered Heading</h1>
17     <p style="text-align:center;">Centered paragraph.</p>
18     <h1 style="border:2px solid ■ Tomato;">Hello World</h1>
19     <h1 style="border:2px solid ■ DodgerBlue;">Hello World</h1>
20     <h1 style="border:2px solid ■ Violet;">Hello World</h1>
21 </body>
22
23 </HTML>
```

This is a heading

This is a paragraph.

This is a heading 300%

This is a paragraph 160%.

Centered Heading

Centered paragraph.

Hello World

Hello World

Hello World

3.6

HTML Colors

• 3.6 HTML Colors

File : html_colors02.html

Color Values

```
<!DOCTYPE html>
<html>
<body>
<p>Same as color name "Tomato":</p>
<h1 style="background-color:rgb(255, 99, 71);">rgb(255, 99, 71)</h1>
<h1 style="background-color:#ff6347;">#ff6347</h1>
<h1 style="background-color:hsl(9, 100%, 64%);">hsl(9, 100%, 64%)</h1>
<p>Same as color name "Tomato", but 50% transparent:</p>
<h1 style="background-color:rgba(255, 99, 71, 0.5);">rgba(255, 99, 71, 0.5)</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 0.5);">hsla(9, 100%, 64%, 0.5)</h1>
<p>In addition to the predefined color names, colors can be specified using RGB,
HEX, HSL, or even transparent colors using RGBA or HSLA color values.</p>
</body>
</html>
```

```
2 <html>
4 <body>
5     <h1>My First Heading</h1>
6     <p>My first paragraph.</p>
7     <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
8     
9     
10    <p style="color: red;">This is a red paragraph.</p>
11    <p title="I'm a tooltip">This is a paragraph.</p>
12    <h1 style="background-color: powderblue;">This is a heading</h1>
13    <p style="background-color: tomato;">This is a paragraph.</p>
14    <h1 style="font-size: 300%;">This is a heading 300%</h1>
15    <p style="font-size: 160%;">This is a paragraph 160%.</p>
16    <h1 style="text-align: center;">Centered Heading</h1>
17    <p style="text-align: center;">Centered paragraph.</p>
18    <h1 style="border: 2px solid Tomato;">Hello World</h1>
19    <h1 style="border: 2px solid DodgerBlue;">Hello World</h1>
20    <h1 style="border: 2px solid Violet;">Hello World</h1>
21    <h1 style="background-color: rgba(255, 99, 71, 0.2);">rgba(255, 99, 71, 0.5)</h1>
22
23 </body>
24
25 </HTML>
```

• 3.7 HTML Styles - CSS

File :

What is CSS?

- Cascading Style Sheets (CSS) is used to format the layout of a webpage.
- With CSS, you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colors are to be used, different displays for different devices and screen sizes, and much more!

Using CSS

CSS can be added to HTML documents in 3 ways:

- **Inline** - by using the style attribute inside HTML elements
- **Internal** - by using a <style> element in the <head> section
- **External** - by using a <link> element to link to an external CSS file

3.6

HTML Styles - CSS

• 3.7 HTML Styles - CSS

File :

Inline CSS

An inline CSS is used to apply a unique style to a single HTML element.

An inline CSS uses the **style** attribute of an HTML element.

The following example sets the text color of the **<h1>** element to blue, and the text color of the **<p>** element to red:

ตัวอย่าง

```
<h1 style="color:blue;">A Blue Heading</h1>  
<p style="color:red;">A red paragraph.</p>
```

```
2 <html>
4 <body>
9 
10 <p style="color: red;">This is a red paragraph.</p>
11 <p title="I'm a tooltip">This is a paragraph.</p>
12 <h1 style="background-color: powderblue;">This is a heading</h1>
13 <p style="background-color: tomato;">This is a paragraph.</p>
14 <h1 style="font-size:300%;">This is a heading 300%</h1>
15 <p style="font-size:160%;">This is a paragraph 160%.</p>
16 <h1 style="text-align:center;">Centered Heading</h1>
17 <p style="text-align:center;">Centered paragraph.</p>
18 <h1 style="border:2px solid Tomato;">Hello World</h1>
19 <h1 style="border:2px solid DodgerBlue;">Hello World</h1>
20 <h1 style="border:2px solid Violet;">Hello World</h1>
21 <h1 style="background-color: rgba(255, 99, 71, 0.2);">rgba(255, 99, 71, 0.5)</h1>
22
23 <!--CSS : Inner Line -->
24 <h1 style="color: blue;">A Blue Heading</h1>
25 <p style="color: red;">A red paragraph.</p>
26
27 </body>
28
29 </HTML>
```

• 3.7 HTML Styles - CSS

File : html_styles_css01.html

Internal CSS

An internal CSS is used to define a style for a single HTML page. An internal CSS is defined in the **<head>** section of an HTML page, within a **<style>** element.

The following example sets the text color of ALL the **<h1>** elements (on that page) to blue, and the text color of ALL the **<p>** elements to red. In addition, the page will be displayed with a "powderblue" background color:

```
<!DOCTYPE html>
<html>
<head>
<style>
    body {background-color: powderblue;}
    h1 {color: blue;}
    p {color: red;}
</style>
</head>
<body>
    <h1>This is a heading</h1>
    <p>This is a paragraph.</p>

</body>
</html>
```

```
1  <!DOCTYPE html>
2  <html>
3
4  <head>
5      <style>
6          body {
7              background-color: ■ powderblue;
8          }
9
10         h1 {
11             color: ■ blue;
12         }
13
14         p {
15             color: ■ red;
16         }
17     </style>
18 </head>
19
```

• 3.7 HTML Styles - CSS

File : html_styles_css02.html

External CSS

An external style sheet is used to define the style for many HTML pages.

To use an external style sheet, add a link to it in the **<head>** section of each HTML page:

styles.css

```
body {  
    background-color: powderblue;  
}  
h1 {  
    color: blue;  
}  
p {  
    color: red;  
}
```

```
<!DOCTYPE html>  
<html>  
  <head>  
    <link rel="stylesheet" href="styles.css">  
  </head>  
  <body>  
  
    <h1>This is a heading</h1>  
    <p>This is a paragraph.</p>  
  
  </body>  
</html>
```

3.6

HTML Styles - CSS

• 3.7 HTML Styles - CSS

File : html_styles_css03.html

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: blue;
  font-family: verdana;
  font-size: 300%;
}
p {
  color: red;
  font-family: courier;
  font-size: 160%;
}
</style>
</head>
```

```
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

```
1  <!DOCTYPE html>
2  <html>
3
4  <head>
5      <style>
6          body {
7              background-color: ■ powderblue;
8          }
9          h1 {
10             color: ■ blue;
11             font-family: verdana;
12             font-size: 300%;
13
14         }
15         p {
16             color: ■ red;
17             font-family: courier;
18             font-size: 160%;
19         }
20     </style>
21 </head>
```

This is a heading 300%

This is a paragraph 160%.

Centered Heading

Centered paragraph.

Hello World

Hello World

Hello World

rgba(255, 99, 71, 0.5)

A Blue Heading

A red paragraph.

• 3.7 HTML Styles - CSS

File : html_styles_css04.html

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
  margin: 50px;
}
</style>
</head>
<body>
  <h1>This is a heading</h1>
  <p>This is a paragraph.</p>
  <p>This is a paragraph.</p>
  <p>This is a paragraph.</p>
</body>
</html>
```

3.6

HTML Styles - CSS

- 3.7 HTML Styles - CSS

File : `html_styles_css05.html`

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="https://www.w3schools.com/html/styles.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

```

1  body {
2      background-color: powderblue;
3  }
4
5  h1 {
6      color: blue;
7      font-family: verdana;
8      font-size: 300%;
9
10 }
11
12 p {
13     color: red;
14     font-family: courier;
15     font-size: 160%;
16     border: 2px solid rgb(34, 168, 88);
17     margin: 50px;
18
19 }

```

Style01.css

```

1  <!DOCTYPE html>
2  <html>
3
4  <head>
5      <link rel="stylesheet" href="style01.css">
6  </head>
7
8  <boDy>
9      <h1>My First Heading</h1>
10     <p>My first paragraph.</p>
11     <a href="http://www.Siam2Dev.com" target="_blank">สยามทูเดฟ</a>
12     
13     
14     <p style="color: red;">This is a red paragraph.</p>
15     <p title="I'm a tooltip">This is a paragraph.</p>
16     <h1 style="background-color: powderblue;">This is a heading</h1>
17     <p style="background-color: tomato;">This is a paragraph.</p>
18     <h1 style="font-size:300%;">This is a heading 300%</h1>
19     <p style="font-size:160%;">This is a paragraph 160%.</p>
20     <h1 style="text-align:center;">Centered Heading</h1>
21     <p style="text-align:center;">Centered paragraph.</p>
22     <h1 style="border:2px solid Tomato;">Hello World</h1>
23     <h1 style="border:2px solid DodgerBlue;">Hello World</h1>

```

3.8

HTML Links

• 3.8 HTML Links

File : html_links01.html

HTML Links - Hyperlinks

- HTML links are hyperlinks.
- You can click on a link and jump to another document.
- When you move the mouse over a link, the mouse arrow will turn into a little hand.

รูปแบบ

```
<a href="url">link text</a>
```

ตัวอย่าง

```
<a href="https://www.siam2dev.com/">Visit siam2dev</a>
```

3.8

HTML Links

• 3.8 HTML Links

File : ...

HTML Links - The target Attribute

By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.

The **target** attribute specifies where to open the linked document.

The **target** attribute can have one of the following values:

- **_self** - Default. Opens the document in the same window/tab as it was clicked
- **_blank** - Opens the document in a new window or tab
- **_parent** - Opens the document in the parent frame
- **_top** - Opens the document in the full body of the window

ตัวอย่าง

```
<a href="https://www.siam2dev.com/" target="_blank">Visit siam2dev.com</a>
```

3.8

HTML Links

• 3.8 HTML Links

File : html_links01.html

HTML Links - The target Attribute

ตัวอย่าง

```
<html>
<body>
<h2>The target Attribute</h2>
<a href="https://www.siam2dev.com/" target="_blank">Visit สยามทูเดฟ, siam2dev.com!</a>
<p>If target="_blank", the link will open in a new browser window or tab.</p>
</body>
</html>
```

3.8

HTML Links

• 3.8 HTML Links

File : ...

Absolute URLs vs. Relative URLs

Both examples above are using an absolute URL (a full web address) in the **href** attribute.

A local link (a link to a page within the same website) is specified with a relative URL (without the "https://www" part):

ตัวอย่าง

<h2>Absolute URLs</h2>

<p>siam2dev</p>

<p>Google</p>

<h2>Relative URLs</h2>

<p>HTML Images</p>

<p>CSS Tutorial</p>

3.8

HTML Links

• 3.8 HTML Links

File : html_links01.html

HTML Links - The target Attribute

ตัวอย่าง

```
<html>
<body>
<h2>The target Attribute</h2>
<a href="https://www.siam2dev.com/" target="_blank">Visit สยามทูเดฟ, siam2dev.com!</a>
<p>If target="_blank", the link will open in a new browser window or tab.</p>
</body>
</html>
```

3.9

HTML Images

- 3.9 HTML Images

File : html_links01.html

Images can improve the design and the appearance of a web page.

ตัวอย่าง

```

```



3.9

HTML Images

- 3.9 HTML Images

File : html_links01.html

Images can improve the design and the appearance of a web page.

src

```

```

Width, Height

```

```

3.9

HTML Images

• 3.9 HTML Images

File : html_images01.html

ตัวอย่าง

```
<!DOCTYPE html>
<html>
<head>
<style>
img {
  width: 100%;
}
</style>
</head>
<body>

</body>
</html>
```

3.9

HTML Images

- 3.9 HTML Images

File : html_images02.html

Another server

```
<!DOCTYPE html>
<html>
<body>

<h2>Images on Another Server</h2>



</body>
</html>
```

3.9

HTML Images

• 3.9 HTML Images

File : html_images03.html

Background Image

```
<!DOCTYPE html>  
<html>  
<body>  
<h2>Background Image</h2>  
<p>A background image for a p element:</p>  
<p style="background-image: url('bg_web1.jpg');">  
You can specify background images<br>  
for any visible HTML element.<br>  
In this example, the background image<br>  
is specified for a p element.<br>  
By default, the background-image<br>  
will repeat itself in the direction(s)<br>  
where it is smaller than the element<br>  
where it is specified. (Try resizing the<br>  
browser window to see how the<br>  
background image behaves.  
</p>  
</body>  
</html>
```



bg_web.jpg

3.9

HTML Images

• 3.9 HTML Images

File :

Background Image

```
<style>  
body {  
  background-image: url('bg_web.jpg');  
}  
</style>
```

bg_web.jpg

```
1  body {
2      background-color: powderblue;
3      background-image: url('imgs/bg_car.jpg');
4  }
5
6  h1 {
7      color: blue;
8      font-family: verdana;
9      font-size: 300%;
10
11 }
12
13 p {
14     color: red;
15     font-family: courier;
16     font-size: 160%;
17     border: 2px solid rgb(34, 168, 88);
18     margin: 50px;
19
20 }
```



3.9

HTML Images

• 3.9 HTML Images

File :html_images04.html

Background Image

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('bg_web.jpg');
  background-repeat: no-repeat;
}
</style>
</head>
<body>
<h2>Background No Repeat</h2>
<p>You can avoid the image from being repeated by setting the background-repeat property to "no-repeat".</p>
</body>
</html>
```

bg_web.jpg

3.9

HTML Favicon

• 3.10 HTML Favicon

File :html_favicon.html

Favicon

A favicon is a small image displayed next to the page title in the browser tab.

```
<!DOCTYPE html>
<html>
<head>
  <title>My Page Title</title>
  <link rel="icon" type="image/x-
icon" href="/images/favicon.ico">
</head>
<body>
<h1>This is a Heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```



favicon.ico

3.9

HTML Page Title

• 3.11 HTML Page Title

File :html_favicon.html

Page Title

Every web page should have a page title to describe the meaning of the page.

```
<!DOCTYPE html>
<html>
<head>
  <title>เว็บสยามทูเดฟ : สักตมแห่งการเรียนรู้</title>
</head>
<body>
  สยามทูเดฟ : ผู้เชี่ยวชาญด้านพัฒนาเว็บไซต์, ระบบ, IoT
  และ AI เพื่อธุรกิจไทย
</body>
</html>
```

3.9

HTML Tables

- 3.12 HTML Tables

File : `html_tables01.html`

Html Tables

HTML tables allow web developers to arrange data into rows and columns.

HTML tables allow web developers to arrange data into rows and columns.

3.9

HTML Tables

• 3.12 HTML Tables

File : html_tables01.html

Html Tables

HTML tables allow web developers to arrange data into rows and columns.

HTML Table Borders

```
table, th, td {  
  border: 1px solid black;  
}
```

Collapsed Table Borders

```
table, th, td {  
  border: 1px solid black;  
  border-collapse: collapse;  
}
```

3.9

HTML Tables

• 3.12 HTML Tables

File : html_tables01.html

Style Table Borders

```
table, th, td {  
  border: 1px solid white;  
  border-collapse: collapse;  
}  
th, td {  
  background-color: #96D4D4;  
}
```


Round Table Borders

```
table, th, td {  
  border: 1px solid black;  
  border-radius: 10px;  
}
```


```

22 table, th, td {
23     border: 1px solid white;
24     border-collapse: collapse;
25 }
26
27 th, td {
28     background-color: #96D4D4;
29 }

```

A red paragraph.

ลำดับ	ชื่อสินค้า	ราคา
1	คอมพิวเตอร์	30000
2	printer	2999

```

<!-- Create Table-->
<table>
    <th>ลำดับ</th>
    <th>ชื่อสินค้า</th>
    <th>ราคา</th>
    <tr>
        <td>1</td>
        <td>คอมพิวเตอร์</td>
        <td>30000</td>
    </tr>
    <tr>
        <td>2</td>
        <td>printer</td>
        <td>2999</td>
    </tr>
</table>

```

```

22 table, th, td {
23     border: 1px solid white;
24     border-collapse: collapse;
25 }
26
27 th {
28     background-color: #047171;
29     color: azure;
30 }
31
32 td {
33     background-color: #96D4D4;
34 }

```

```

<!-- Create Table-->
<table align="center" width="80%">
    <th>ลำดับ</th>
    <th>ชื่อสินค้า</th>
    <th>ราคา</th>
    <tr>
        <td>1</td>
        <td>คอมพิวเตอร์</td>
        <td>30000</td>
    </tr>
    <tr>
        <td>2</td>
        <td>printer</td>
        <td>2999</td>
    </tr>
</table>

```

ลำดับ	ชื่อสินค้า	ราคา
1	คอมพิวเตอร์	30000
2	printer	2999

3.9

HTML Tables

• 3.12 HTML Tables

File : html_tables01.html

Border Color

```
th, td {  
  border-color: #96D4D4;  
}
```

Table With Border Color

Use the CSS border-color property to set the color of the borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<!DOCTYPE html>  
<html>  
  <head>  
    <style>  
      th, td {  
        border-style:solid;  
        border-color: #96D4D4;  
      }  
    </style>  
  </head>  
  <body>  
    <h2>Table With Border Color</h2>  
    <p>Use the CSS border-color property  
    to set the color of the borders.</p>
```

```
<table  
  style="width:100%">  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Jill</td>  
    <td>Smith</td>  
    <td>50</td>  
  </tr>
```

```
<tr>  
  <td>Eve</td>  
  <td>Jackson</td>  
  <td>94</td>  
</tr>  
<tr>  
  <td>John</td>  
  <td>Doe</td>  
  <td>80</td>  
</tr>  
</table>  
</body>  
</html>
```

3.9

HTML Tables

• 3.12 HTML Tables

File : html_tables02.html

Html Tables

HTML tables allow web developers to arrange data into rows and columns.

```
<!DOCTYPE html>
<html>
<style>
table, th, td {
  border:1px solid black;
}
</style>
<body>
<h2>A basic HTML table</h2>
<table style="width:100%">
  <tr>
```

```
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
  </tr>
</table>
<p>To understand the example better, we have added borders to the table.</p>
</body>
</html>
```

• 3.12 HTML Tables

File : [html_tables02.html](#)

HTML Table Padding & Spacing

HTML tables can adjust the padding inside the cells, and also the space between the cells.

HTML Table Padding & Spacing

[< Previous](#)

HTML tables can adjust the padding inside the cells, and also the space between the cells.

With Padding

hello	hello	hello
hello	hello	hello
hello	hello	hello

With Spacing

hello	hello	hello
hello	hello	hello
hello	hello	hello

3.9

HTML Tables

• 3.12 HTML Tables

File : html_tables03.html

HTML Table Padding & Spacing

HTML tables allow web developers to arrange data into rows and columns.

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding-top: 10px;
  padding-bottom: 20px;
  padding-left: 30px;
  padding-right: 40px;
}
</style>
</head>
```

```
<body>
<h2>Cellpadding - top - bottom - left - right
</h2>
<p>We can specify different padding for all
fours sides of the cell content.</p>
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
```

```
<tr>
  <td>Eve</td>
  <td>Jackson</td>
  <td>94</td>
</tr>
<tr>
  <td>John</td>
  <td>Doe</td>
  <td>80</td>
</tr>
</table>

</body>
</html>
```

```

22 table,
23 th,
24 td {
25     border: 1px solid white;
26     border-collapse: collapse;
27 }
28
29 th {
30     background-color: #047171;
31     color: azure;
32 }
33
34 td {
35     background-color: #96D4D4;
36     padding-top: 10px;
37     padding-bottom: 20px;
38     padding-left: 30px;
39     padding-right: 40px;
40
41 }

```



ลำดับ	ชื่อสินค้า	ราคา
1	คอมพิวเตอร์	30000
2	printer	2999

3.9

HTML Lists

• 3.13 HTML Lists

File :

HTML List

HTML lists allow web developers to group a set of related items in lists.

Unordered HTML List

```
<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>
```

Ordered HTML List

```
<ol>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>
```

3.9

HTML Lists

• 3.13 HTML Lists

File : html_list

HTML List

HTML lists allow web developers to group a set of related items in lists.

Unordered HTML List

```
<!DOCTYPE html>
<html>
<body>
<h2>An unordered HTML list</h2>
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

Ordered HTML List

```
<!DOCTYPE html>
<html>
<body>
<h2>An unordered HTML list</h2>
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

3.9

HTML Block and Inline Elements

• 3.14 HTML Block and Inline Elements

File : html_list

Block-level Elements (องค์ประกอบแบบบล็อก)

Block-level Elements (องค์ประกอบแบบบล็อก)

- องค์ประกอบแบบบล็อก (Block-level element) จะเริ่มต้นที่บรรทัดใหม่เสมอ และเบราว์เซอร์จะเพิ่มระยะห่าง (margin) ก่อนและหลังองค์ประกอบนั้นให้อัตโนมัติ
- องค์ประกอบแบบบล็อกจะกินความกว้างทั้งหมดที่มีอยู่ (ยืดออกทางซ้ายและขวาสุดเท่าที่จะทำได้)
- ตัวอย่างองค์ประกอบแบบบล็อกที่นิยมใช้ ได้แก่ <p> และ <div>
- แท็ก <p> ใช้สำหรับกำหนดย่อหน้า (paragraph) ในเอกสาร HTML
- แท็ก <div> ใช้สำหรับแบ่งหรือกำหนดส่วนต่าง ๆ (division หรือ section) ในเอกสาร HTML

Example

```
<p>Hello World</p>  
<div>Hello World</div>
```

3.9

HTML Block and Inline Elements

• 3.14 HTML Block and Inline Elements

File : `html_list`

Block-level Elements (องค์ประกอบแบบบล็อก)

Here are the block-level elements in HTML:

<code><address></code>	<code><article></code>	<code><aside></code>	<code><blockquote></code>	<code><canvas></code>	<code><dd></code>	<code><div></code>	<code><dl></code>
<code><dt></code>	<code><fieldset></code>	<code><figcaption></code>	<code><figure></code>	<code><footer></code>	<code><form></code>	<code><h1>-<h6></code>	<code><header></code>
<code><hr></code>	<code></code>	<code><main></code>	<code><nav></code>	<code><noscript></code>	<code></code>	<code><p></code>	<code><pre></code>
<code><section></code>	<code><table></code>	<code><tfoot></code>	<code></code>	<code><video></code>			

Inline Elements

`<span>Hello World</span>`

3.9

HTML Block and Inline Elements

• 3.14 HTML Block and Inline Elements

File : html_div.html

The <div> Element

The <div> Element

- <div> (Division) คือ block-level element
- ใช้สำหรับ แบ่งกลุ่ม/จัดโครงสร้างส่วนใหญ่ๆ ของหน้าเว็บ เช่น Section, กล่อง, หรือคอนเทนเนอร์ต่างๆ
- เมื่อใช้ <div> จะขึ้นบรรทัดใหม่โดยอัตโนมัติ และขยายกว้างเต็มพื้นที่ที่มี
- นิยมใช้คู่กับ CSS เพื่อจัด layout หรือกำหนด style ให้กับกลุ่มของ element

Example

```
<div style="background: #f0f0f0; padding: 10px;">  
  <h2>ข่าวสารล่าสุด</h2>  
  <p>วันนี้อากาศดีมาก!</p>  
</div>
```

3.9

HTML Block and Inline Elements

• 3.14 HTML Block and Inline Elements

File : `html_span.html`The `<span>` ElementThe `<span>` Element

- `<span>` คือ inline element
- ใช้สำหรับ เน้น/จัดกลุ่มข้อความหรือ element เล็กๆ ภายในบรรทัด
- จะไม่ขึ้นบรรทัดใหม่ ขนาดกว้างแค่พอดีเนื้อหา (ไม่ขยายเต็มบรรทัด)
- นิยมใช้สำหรับกำหนด style เฉพาะคำหรือประโยคบางส่วน เช่น เปลี่ยนสี, ขนาด หรือไอคอนในบรรทัดเดียวกัน

Example

```
<p>ข้อความนี้ <span style="color: red;">สำคัญมาก</span> กรุณาอ่านให้ละเอียด</p>
```

3.9

HTML Forms

• 3.23 HTML Forms

File : html_forms.html

Html forms

- An HTML form is used to collect user input. The user input is most often sent to a server for processing.

Example

```
<!DOCTYPE html>
<html>
<body>
<h2>HTML Forms</h2>
<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
```

```
<label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname"
value="Doe"><br><br>
  <input type="submit" value="Submit">
</form>
<p>If you click the "Submit" button, the form-data will be
sent to a page called "/action_page.php".</p>
</body>
</html>
```

3.9

HTML Forms

• 3.23 HTML Forms

File : html_forms.html

Radio Buttons

The `<input type="radio">` defines a radio button.
Radio buttons let a user select ONE of a limited number of choices.

Example

```
<p>Choose your favorite Web language:</p>
<form>
  <input type="radio" id="html" name="fav_language" value="HTML">
  <label for="html">HTML</label><br>
  <input type="radio" id="css" name="fav_language" value="CSS">
  <label for="css">CSS</label><br>
  <input type="radio" id="javascript" name="fav_language" value="JavaScript">
  <label for="javascript">JavaScript</label>
</form>
```

3.9

HTML Forms

• 3.23 HTML Forms

File : html_forms.html

Checkboxes

The `<input type="checkbox">` defines a checkbox.
Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Example

```
<form>  
  <input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">  
  <label for="vehicle1"> I have a bike</label><br>  
  <input type="checkbox" id="vehicle2" name="vehicle2" value="Car">  
  <label for="vehicle2"> I have a car</label><br>  
  <input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">  
  <label for="vehicle3"> I have a boat</label>  
</form>
```

3.9

HTML Forms

• 3.23 HTML Forms

File : html_forms.html

The Submit Button

The `<input type="submit">` defines a button for submitting the form data to a form-handler. The form-handler is typically a file on the server with a script for processing input data. The form-handler is specified in the form's action attribute.

Example

```
<form action="/action_page.php">  
  <label for="fname">First name:</label><br>  
  <input type="text" id="fname" name="fname" value="John"><br>  
  <label for="lname">Last name:</label><br>  
  <input type="text" id="lname" name="lname" value="Doe"><br><br>  
  <input type="submit" value="Submit">  
</form>
```

3.9

HTML Forms

• 3.23 HTML Forms

HTML Input Types

HTML Input Types

Here are the different input types you can use in HTML:

- `<input type="button">`
- `<input type="checkbox">`
- `<input type="color">`
- `<input type="date">`
- `<input type="datetime-local">`
- `<input type="email">`
- `<input type="file">`
- `<input type="hidden">`
- `<input type="image">`
- `<input type="month">`
- `<input type="number">`
- `<input type="password">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="reset">`
- `<input type="search">`
- `<input type="submit">`
- `<input type="tel">`
- `<input type="text">`
- `<input type="time">`
- `<input type="url">`
- `<input type="week">`

File : **html_forms.html**

3.9

HTML Forms

• 3.23 HTML Forms

File : html_forms.html

HTML Input Attributes

The value Attribute

```
<input type="text" id="fname" name="fname" value="John"><br>
```

The readonly Attribute

```
<input type="text" id="fname" name="fname" value="John" readonly><br>
```

The disabled Attribute

```
<input type="text" id="fname" name="fname" value="John" disabled><br>
```

The size Attribute

```
<input type="text" id="fname" name="fname" size="50"><br>
```

The maxlength Attribute

```
<input type="text" id="pin" name="pin" maxlength="4" size="4">
```

The min and max Attributes

```
<input type="date" id="datemin" name="datemin" min="2000-01-02"><br><br>
```

