

HTML

2566

HTML

Web page creation

Main idea: **use elements to structure the content**

Several version

- Current version: HTML5

Hypertext Markup Language

- Tags, Elements and Attributes

< >

- Tags = tokens enclosed by angle brackets - < >

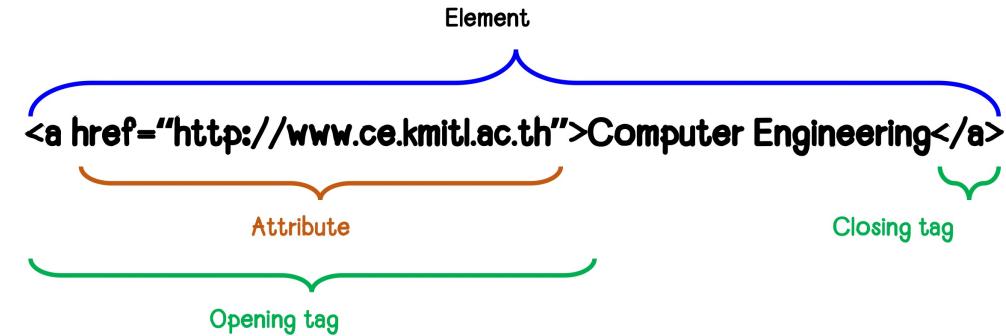
- Element คือหตุโดยสารที่มีอยู่สองส่วน คือ ภาษาที่ใช้ในการเขียนคำสั่ง และ ที่ต้องการจะแสดงในหน้าจอ

1 หัวใจ 2 ห้อง

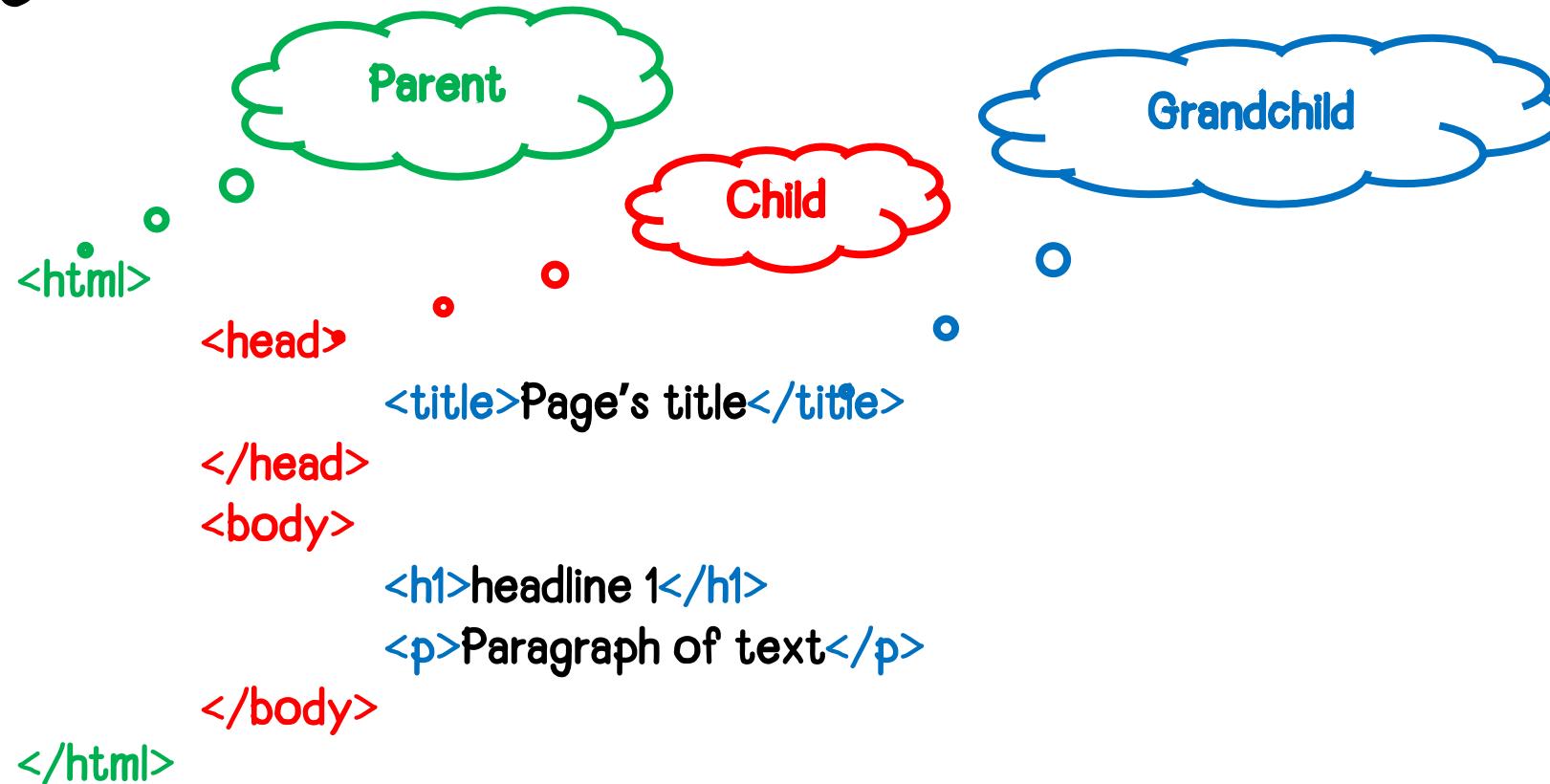
- Attributes = modify tag ลักษณะของ 2 ห้อง คือ ห้องๆ หนึ่ง

value

- Mostly case insensitive and not necessary to quote the value part of the attributes



- Relationship between elements are described in term from a family tree



HTML/XHTML

- Same main idea
- HTML is too relaxed
 - Hard to find a minor mistake
 - Ex:
 - `<h1>this is <i>KMITL</i></h1>`
 - `<h1>this is <i>KMITL</h1></i>`
- XHTML was then developed in 1998 by W3C to fix this issue
 - Strengthen rules
 - Version 2
 - too strict
 - forces the developer to change behavior
 - has no new desired features.
 - /Failure/

HTML5

- **3 key principles of HTML5**
 - **Don't break the web**
 - Everything that was valid before HTML5 remains valid in HTML5
 - **Pave the cowpaths**
 - Standardizes the unofficial technics that is widely used
 - **Be practical**
 - Changes should have a practical purpose
 - Ex: If people are using the web to watch video, then support video in HTML standard

HTML5



CSS3

Using me, you can draw right on your web page. With me, you can draw text, images, lines, circles, rectangles, patterns and gradients. I'll bring out your inner artist.

1

Web Workers

You might have used me in HTML 4 to enter information, but I'm even better in HTML5. I can require that you fill out fields, and I can more easily verify that you've typed an email, URL or phone number where you're supposed to.

2

Forms

You used to need a plug-in for us, but now we're first class members of the HTML family of elements. Wanna watch or listen to something? You need us.

3

Offline Web Apps

We're here to help with the structure and semantic meaning of your page, including new ways of making sections, headers, footers and navigation in your pages.

4

Audio & Video

I'm the most stylish one in the family. You've probably used me before, but did you know I can now animate your elements, give them great rounded corners and even drop shadows?

5

New Markup

Use me as a bit of local storage in every user's browser. Need to store a few preferences, some shopping cart items, or maybe even stash a huge cache for efficiency? I'm your API.

6

Local Storage

Need applications that work even when you aren't connected to the network? I can help.

7

Canvas

I'm the API that can tell you where you are, and I play nice with Google maps.

8

Geolocation

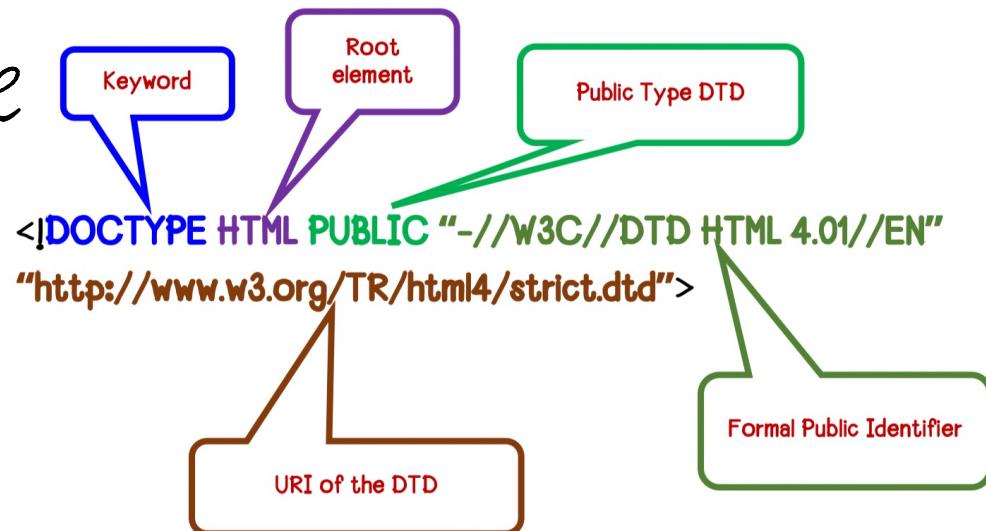
You'll want me whenever you need several scripts running concurrently and in the background, so your user interface remains responsive.

9

HTML Documents structure

- A valid document contains the following components, in order:
 - 1) The document type declaration
 - 2) The document's **html** element
 - 3) The **head** element inside of the **html** element
 - 4) The **title** element and (optional) **link**, **script**, **base**, **meta** element inside of the **head** element
 - 5) Within the **html** element after the **head** element must be **body** element
 - 6) Inside of **body** element, there must be at least 1 block element

Type HTML Document



- Document type
 - Declare which type the document are created
 - Should be the very first thing in HTML document
 - Contains information about HTML's version using in the page
- In HTML 4.01
 - Using DTD file which defines the legal building block of HTML document
 - 3 types: Strict, Transitional, Frameset

```
<!DOCTYPE HTML PUBLIC "-//W3c//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<!DOCTYPE HTML PUBLIC "-//W3c//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/loose.dtd">
<!DOCTYPE HTML PUBLIC "-//W3c//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/frameset.dtd">
```

Document structure

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN"  
    "http://www.w3.org/TR/html4/strict.dtd">  
  
<html>  
    <head>  
        <title>Head First Lounge</title>  
        <meta http-equiv="content-type" content="text/html; charset=UTF-8">  
        <link type="text/css" rel="stylesheet" href="lounge.css">  
        <script type="text/javascript" src="lounge.js"></script>  
    </head>  
    <body>  
        <h1>Welcome to Head First Lounge</h1>  
        <p>  
              
        </p>  
        <p>  
            Join us any evening for refreshing <a href="elixirs.html">elixirs</a>,  
            conversation and maybe a game or two of Tap Tap Revolution.  
            Wireless access is always provided; BYOWS (Bring Your Own Web Server).  
        </p>  
    </body>  
</html>
```

Document structure

```
<!doctype html> ← The doctype...  
<html> → root level element  
  <head>  
    <title>Head First Lounge</title>  
  
    <meta charset="utf-8"> ← ... the meta tag...  
    <link rel="stylesheet" href="lounge.css"> ← ... the link tag...  
    <script src="lounge.js"></script> ← ... and the script tag.  
  </head>  
  <body>  
    <h1>Welcome to Head First Lounge</h1>  
    <p>  
        
    </p>  
    <p>  
      Join us any evening for refreshing <a href="elixirs.html">elixirs</a>,  
      conversation and maybe a game or two of Tap Tap Revolution.  
      Wireless access is always provided; BYOWS (Bring Your Own Web Server).  
    </p>  
  </body>  
</html> → root level element
```

Good HTML5 practices

ຕິດຕະຫຼອກ

- Including the optional <html>, <head> and <body> elements
- Using lowercase tags
- Using quotation marks around attribute values ໃຊ້ " " ສາມືດ Value ຈົດ Attribute
- Validate the html5: <http://validator.w3.org> → check code ເພີ້ມວ່າ Good practices ຕາມ standard

XHTML5

9.5 XHTML5

<html xmlns="http://www.w3.org/1999/xhtml">

Structuring Documents for the web

- **Heading**
 - 6 levels from <h1> to <h6>
- **Section**
 - Paragraph <p>
 - Preformatted sections <pre>
 - Line breaks

 - Addresses <address>
- **Phrase elements**
 - , , etc.
- **Presentation**
 - , <i>, <u>, <sup>, <sub>, etc.
- **Lists**
 - &
 - &
- **Editing**
 - <ins> and
- **Structure & Grouping**
 - <article>
 - <header>, <footer> and <div>
 -
- **Link**
 - <a>
- **Form**
 - <input>

Link and Navigation Tags

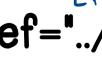
- Link to other web page

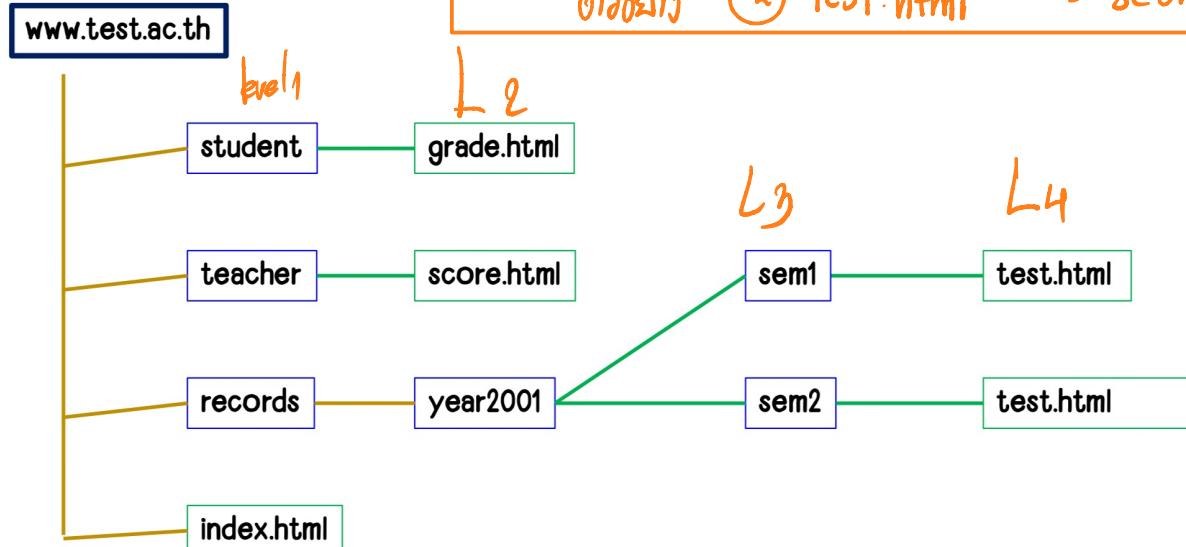
`Click here`

- Link to E-mail Address

`mail to Admin`

- Link to URL types

- Absolute URL  `Grade` ①
- Relative URL  `link to score`    ②



Destination Anchor

- Destination anchor

`TOP`

- Link to destination anchor

`TOP`

align

Other Attributes of `<a>`

- Charset

`go to test`

- hreflang

`go to test`

- Target

`go to test`

- Tabindex

`go to test`

Image, Audio, Video

- Adding image to the page

```

```

- Specify the size of image

```

```

- Align

```

```

- Border

```

```

- Space

```

```

The screenshot shows a Mozilla Firefox browser window with three sections demonstrating the `align` attribute:

- No Align:** The image is centered. The text "Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut risus tellus, hendrerit id, sagittis sed, lobortis eget, augue." is displayed below it.
- Align Left:** The image is aligned to the left. The text "Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut risus tellus, hendrerit id, sagittis sed, lobortis eget, augue." is displayed to its right.
- Align Right:** The image is aligned to the right. The text "Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut risus tellus, hendrerit id, sagittis sed, lobortis eget, augue." is displayed to its left.



- Image as links #

```
<a href="http://www.test.ac.th/">  
    
</a>
```

- Image Maps #

<map> tag defines an image map (image with clickable area)

<area> tag defines clickable area

- Example:

```
  
  
<map name="workmap">  
  <area shape="rect" coords="34,44,270,350" alt="Computer" href="computer.htm">  
  <area shape="rect" coords="290,172,333,250" alt="Phone" href="phone.htm">  
  <area shape="circle" coords="337,300,44" alt="Coffee" href="coffee.htm">  
</map>
```

Form

↳ Attributes

- <form> element carry at least 2 attributes
 - **action** = usually specifies program that will receive information
 - **method** = specifies HTTP post or HTTP get to be used to carry information to the server
- Others attributes:
 - **id** = uniquely identify <form> element within a page, value must be unique to the document
 - **name** (deprecated) = the same as id
 - **onsubmit** = fire submit event, uses in conjunction with script, its value is a script
 - **onreset** = fire clear form event, its value is a script
 - **enctype** = uses with HTTP post method to tell browser which kind of encoding to be used
 - application/x-www-form-urlencoded (default) = general data encoding
 - multipart/form-data = data encoding in case of uploading image or file
 - accept-charset = specifies character encoding used
 - target = specifies which frame the form's result will be displayed

Form Controls

- Text input
- Buttons
- Checkboxes and radio buttons
- Select boxes
- File select boxes
- Hidden control

Form

The Co-operative Motor Insurance - Mozilla Firefox
File Edit View History Bookmarks Tools Help https://welcome42.co-operativeinsurance.co.uk/gidrect.motor/start.do Google

Cover Details

How many years have you held your driving licence? Have you had any accident or loss in the last 4 years? Yes No

When would you like the insurance to start (dd/mm/yyyy) Have you been convicted of, or received a fixed penalty notice for, a motoring offence in the last 5 years or is any prosecution pending? Yes No

Number of years No Claim Discount earned? Are there any additional drivers? Yes No

Are you claiming NCD from a previous Co-operative insurance motor policy? Yes No

Vehicle Details

If your vehicle is a van/pick-up, please call our Customer Contact Centre on 08457 464646 for a quotation

Vehicle Registration Number Annual Mileage

Alternatively choose your vehicle below:

Vehicle type Where is the vehicle normally kept overnight?

Estimated value of vehicle including accessories (£)

If you are having any problems locating your car please contact our call centre on 08457 464646

Purpose for which vehicle will be used

What prompted you to apply online?

Please tick if you do not wish to receive marketing material from The Co-operative Family of Companies as described in 'Use of Your Personal Data' below.

By email
By post
By phone

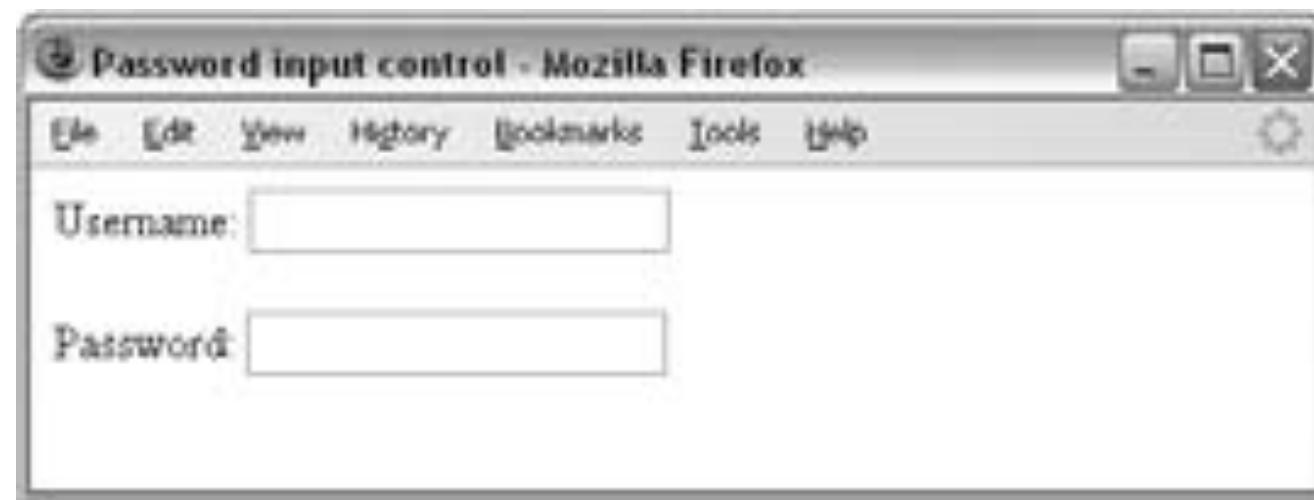
```
<form action="http://www.example.org/search.aspx"
      method="get">
< h3 > Search the site < /h3 >
< input type="text" name="txtSearchItem" >
< input type="submit" value="Search" >
< /form >
```



```
< form action="http://www.example.org/feedback.aspx" method="post" >  
Please tell us what you think of the site and then click submit: < br >  
< textarea name="txtFeedback" rows="20" cols="50" >  
Enter your feedback here. < /textarea > < br / >  
< input type="submit" value="Submit" / >  
< /form >
```



```
< form action="http://www.example.com/login.aspx" method="post" >
Username:
< input type="text" name="txtUsername" value="" size="20" maxlength="20" >
< br >
Password:
< input type="password" name="pwdPassword" value="" size="20" maxlength="20" >
< input type="submit" value="Submit" >
< /form >
```

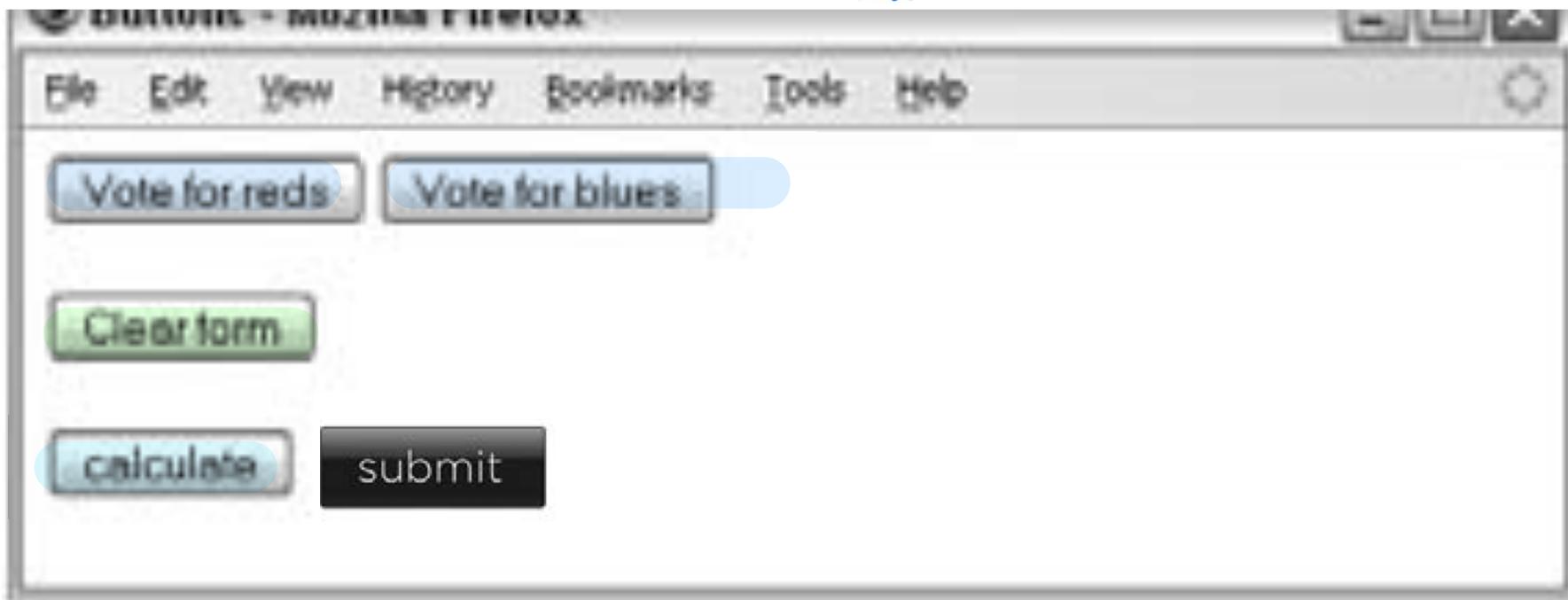


Input type = ...

```
< input type="submit" name="btnVoteRed" value="Vote for reds" >  
< input type="submit" name="btnVoteBlue" value="Vote for blues" >  
< br > < br >  
< input type="reset" value="Clear form" > < br > < br >  
< input type="button" value="calculate" onclick="calculate()" >
```

ແລສນາມວິຊຸປໍພົມໃຈລດ

```
< input type="image" src="submit.jpg" alt="Submit" name="btnImage" >
```



```
< button type="submit" > Submit < /button > Button#  
< br > < br >  
< button type="reset" ><b> Clear this form ,</b> I want to start again  
</button>  
< br > < br >  
< button type="button" > < img src="submit.gif" alt="submit" > < /button >
```



```
<form action="http://www.example.com/cv.aspx" method="get" name="frmCV">
Which of the following skills do you possess? Select all that apply.
< input type="checkbox" name="chkSkills" value="xhtml" > XHTML <br>
< input type="checkbox" name="chkSkills" value="CSS" > CSS <br>
< input type="checkbox" name="chkSkills" value="JavaScript" > JavaScript <br>
< input type="checkbox" name="chkSkills" value="aspnet" > ASP.Net <br>
< input type="checkbox" name="chkSkills" value="php" > PHP
< input type="checkbox" name="chkAcceptTerms" checked="checked" >
```

```
</form>
```



```
<form action="http://www.ex.com/flights.aspx" name="frmFlightBooking" method="get">
Please select which class of travel you wish to fly: <br>
< input type="radio" name="radClass" value="First" > First class <br>
< input type="radio" name="radClass" value="Business" > Business class <br>
< input type="radio" name="radClass" value="Economy" > Economy class <br>
</form >
```



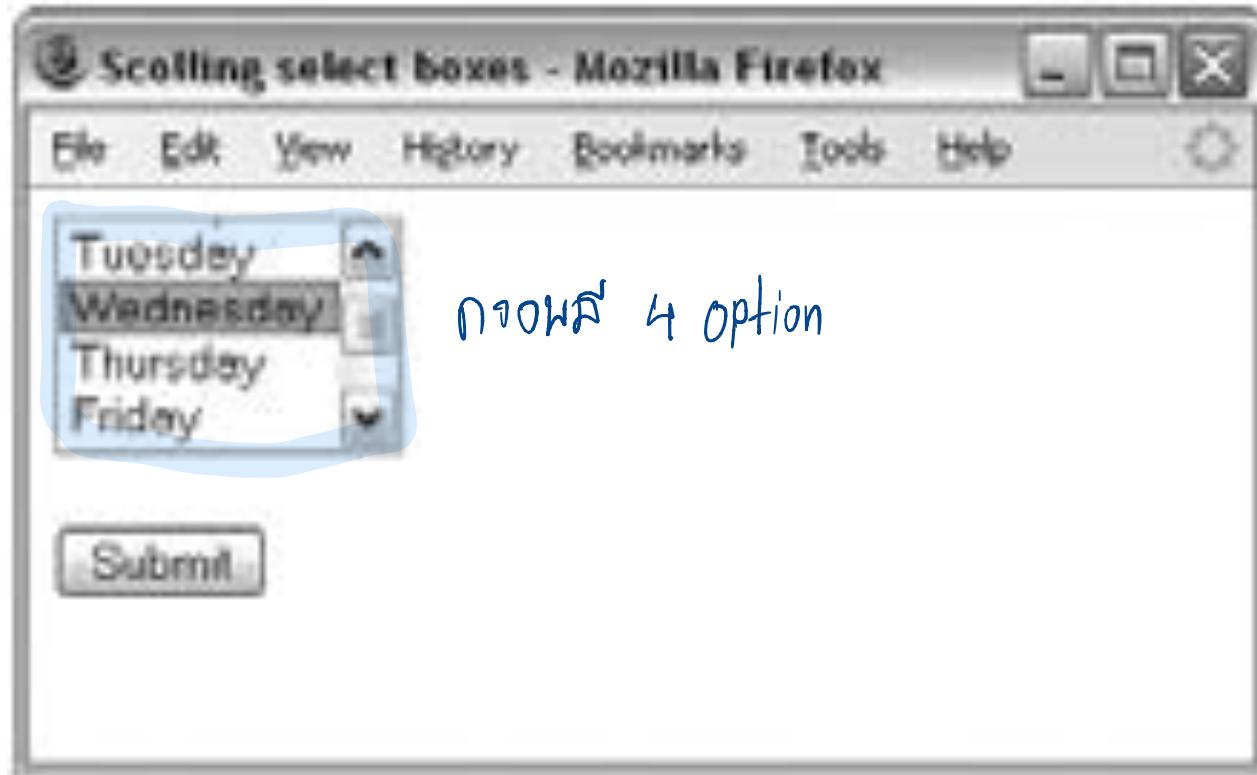
Select #

```
< select name="selColor" >  
< option selected="selected" value="" > Select color < /option >  
< option value="red" > Red < /option >  
< option value="green" > Green < /option >  
< option value="blue" > Blue < /option >  
< /select >
```

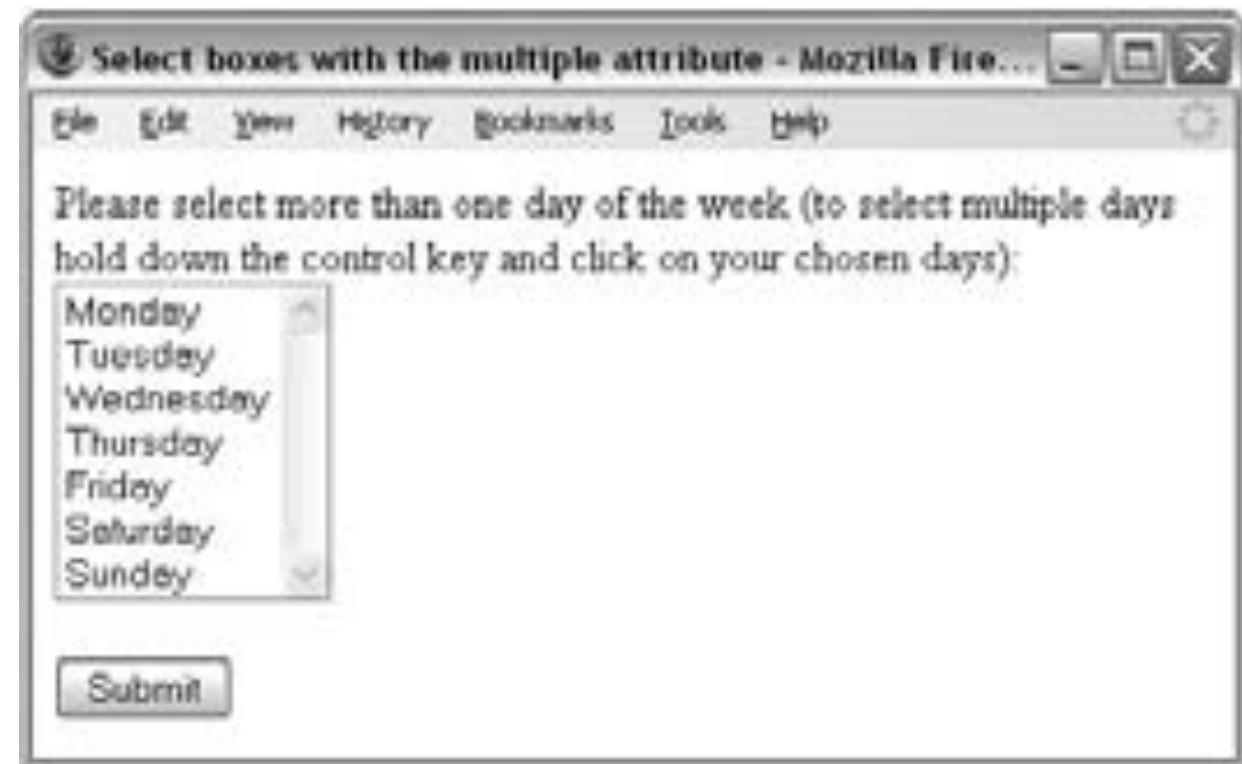


Select size #

```
< select size="4" name="selDay" >  
< option value="Mon" > Monday </option>  
< option value="Tue" > Tuesday </option>  
< option value="Wed" > Wednesday </option>  
< option value="Thu" > Thursday </option>  
< option value="Fri" > Friday </option>  
< option value="Sat" > Saturday </option>  
< option value="Sun" > Sunday </option>  
</select>
```



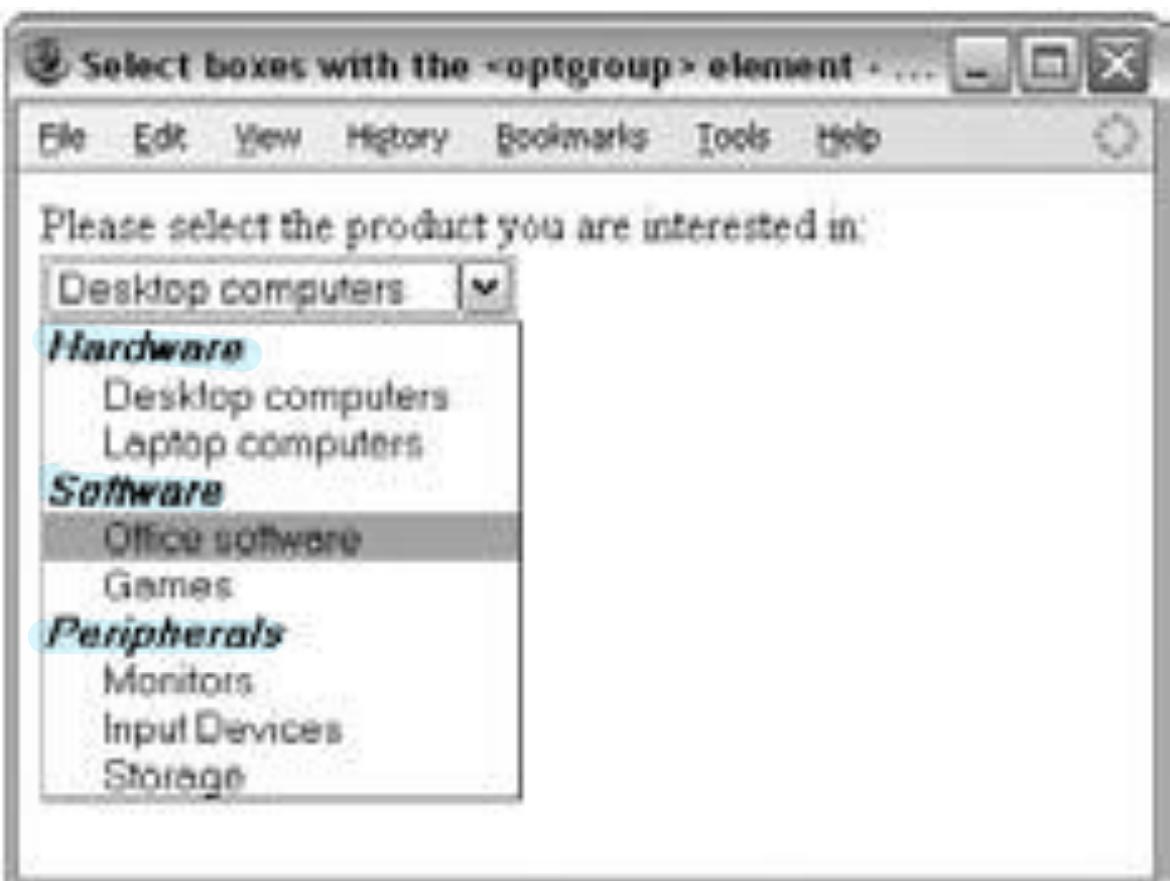
```
< select name="selDays" multiple="multiple" >
< option value="Mon" > Monday < /option >
< option value="Tue" > Tuesday < /option >
< option value="Wed" > Wednesday < /option >
< option value="Thu" > Thursday < /option >
< option value="Fri" > Friday < /option >
< option value="Sat" > Saturday < /option >
< option value="Sun" > Sunday < /option >
< /select >
```



```
< select name="selInformation" >
< optgroup label="Hardware" >
< option value="Desktop" > Desktop computers
</option >
< option value="Laptop" > Laptop computers
</option >
< /optgroup >
< optgroup label="Software" >
< option value="OfficeSoftware" > Office
software < /option >
< option value="Games" > Games < /option >
< /optgroup >
```

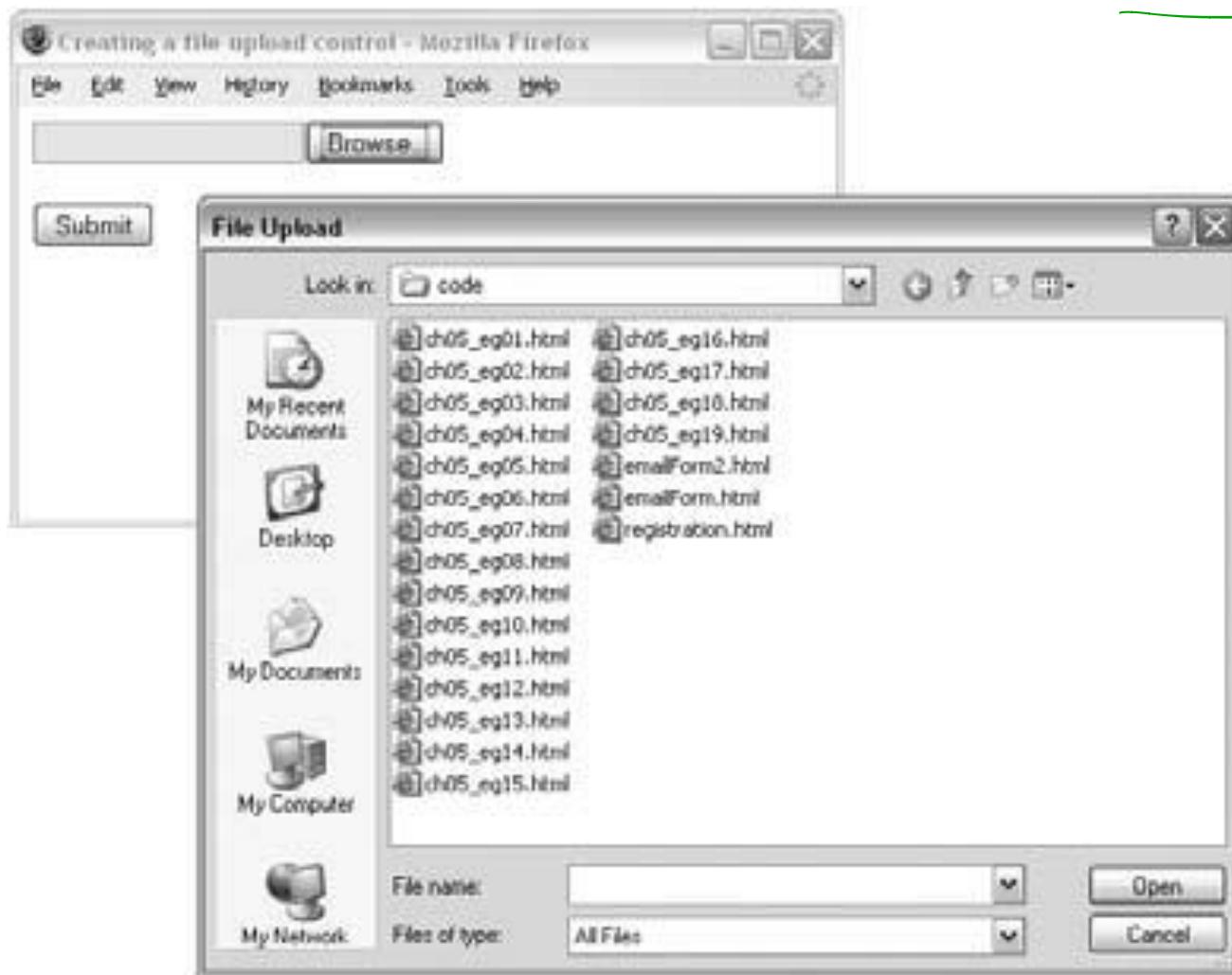
Select optgroup #

```
< optgroup label="Peripherals" >
< option value="Monitors" > Monitors
</option >
< option value="InpD" > Input Devices
</option >
< option value="Storage" > Storage
</option >
< /optgroup >
```



```
< form action="http://www.example.com/imageUpload.aspx" method="post"  
name="fromImageUpload" enctype="multipart/form-data" >  
< input type="file" name="fileUpload" accept="image/*" >  
< br > < br > < input type="submit" value="Submit" >  
< /form >
```

input type file



input hide #

```
< form action="http://www.example.com/vote.aspx" method="get" name="fromVote" >
< input type="hidden" name="hidPageSentFrom" value="home page" >
< input type="submit" value="Click if this is your favorite page of our site." >
< /form >
```



Semantic elements – document structure

- html4

- <div>
-

- html4

```
<div>
    header content
</div>
<div>
    content
</div>
<div>
    footer content
</div>
```

- html5

```
<header>
    header content
</header>
<div>
    content
</div>
<footer>
    footer content
</footer>
```

- html5

- <header> หัวข้อ
- <footer>
- <div>
- <figure>
- <aside>
- <nav>
- <section>
- <main> main idea ใจกลาง

Example

- **html4**

```
<div>
    header content
</div>
<div>
    content
</div>
<div>
    footer content
</div>
```

- **html5**

```
<header>
    header content
</header>
<div>
    content
</div>
<footer>
    footer content
</footer>
```

Tag <details> & <summary>

```
<details>
    <summary>section topic</summary>
    <p>section content bla bla</p>
</details>
```

- Collapsible content

ជាអេក្រង់ section topic អនុគត / (បានបង្កើតឡាយពាណិជ្ជកម្ម)

ជាមួយវិធានភាពនៃទំនើប

Text-level semantic elements

- <time>
- <output>
- <mark>

Text-level semantic elements

<time>

- Indicates date-time in the content
- Provides date-time value in standard format
- Ex:

<time datetime="2020-02-07">วันที่ 7 กุมภาพันธ์ 2020</time>

<time datetime="19:19">ทุ่มสิบเก้านาที</time>

<time datetime="2020-02-07 19:19">วันที่ 7 กุมภาพันธ์ 2020 เวลา 7:19 p.m.</time>

เวลาตามเครื่องที่ format มาตชูราก แล้วนำลงใน format ที่ต้องการ /
ให้ฟอร์ม format ตามกัน

Text-level semantic elements

<Output> ~~#~~

- Uses with JavaScript
- html4
 - <p>result:</p>
- html5
 - <p>result:<output id="r1"></output></p>
js 9 1 1 1 1
↓

Text-level semantic elements

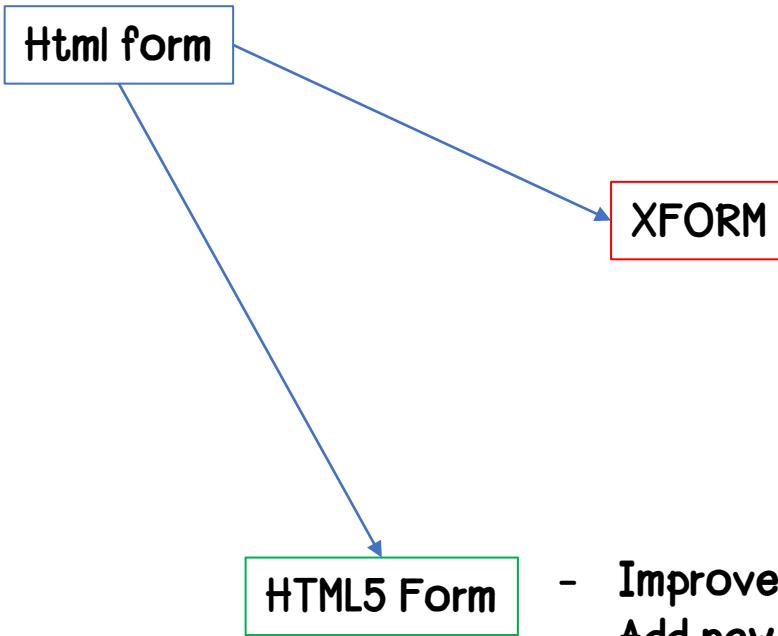
<mark>

- **Highlighted text**
- **Ex:**
 - <p>text text text <mark>text</mark> text text text</p>

Other standards of semantic elements

- ARIA
 - Use attribute 'role'
- RDFa
 - Attributes based
- Microformats
 - Not an official standard
 - Agreement upon dev.
 - Use standardized style name of class attribute
- Microdata
 - Attributes based
 - Quite similar to RDFa but less complexity

HTML5 form



- Complex
- Derived from XML rather than HTML
- Improves and solves problems of FORM
- It's good But Fail!

- Improved version of the older html form
- Add new features

Understanding forms

- Web form is
 - A collection of input fields
 - Textbox
 - Radio button
 - Check box
 - Clickable button
 - Use to supply data to the server

Basic input

- Example

```
<input type="text" id="name" placeholder="John smith">
```

Client-side validation

- Perform by browser
- Use attributed “required”
- Ex:

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

Stop validate ~~or~~ no validate

- Disable validate feature
- Use attribute “**novalidate**” / “**formnovalidate**”
- Ex:

```
<form action="xxxx.cgi" novalidate>
```

Or

```
<input type="submit" value="xxx" formnovalidate>
```

Regular expression

- Verify the correctness of the input pattern
- Ex:
 - [A-Z] {3} - [a-z] {2} - [0-9] {6}
 - <input type="text" pattern="[A-Z] {3} - [a-z] {2} - [0-9] {6}">

New input types in HTML5

- email
- url
- search
- tel
- number
- range
- date, month, week, time*
- Color*

New elements

HTML5 

- Input suggestions with <datalist>
- Progress bars and meters: <progress> and <meter>
- Toolbars and menus: <command> and <menu>

ข้อ 1.

SW Studio TODAY

Life of students who study Software studio.

reported by Mr.XXX

Contents

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- [Drama 1](#)
- [Conclusion](#)

Introduction

intro intro intro intro
intro intro intro intro

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Drama 1

drama drama drama drama
drama drama drama
drama drama Fri 7,2020



[www.shutterstock.com - 345947564](#)

image's description bla bla

drama drama drama
drama drama drama
drama drama drama
drama drama drama
drama drama drama

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Conclusion

conclusion 1
conclusion 2
conclusion 3

[back to Content](#)

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ข้อ 2.

Contact Information

First name:	<input type="text"/>
Last name:	<input type="text"/>
E-mail:	<input type="text"/>

Competition Question

How tall is the Eiffel Tower in Paris, France?

- 584ft
- 784ft
- 984ft
- 1184ft

Tiebreaker Question

In 25 words or less, say why you would like to win \$10,000:

Enter competition

[Enter Competition](#)

feel: code