

# HTML

2/2563

# HTML

- Web page creation
- Main idea: **use elements to structure the content**
- Several version
  - Current version: HTML5
- HTML/XHTML
  - Will explain later

# Hypertext Markup Language

- Tags, Elements and Attributes
  - Tags = tokens enclosed by angle brackets - < >
  - Elements define the structure of document and lay the foundation for its presentation and manipulation, contained within one or two tags
  - Attributes = Tag modifiers compose of 2 parts: name and value *↓ ឈ្មោះ និង តម្លៃ name=value*
- Mostly case insensitive and not necessary to quote the value part of the attributes

Element

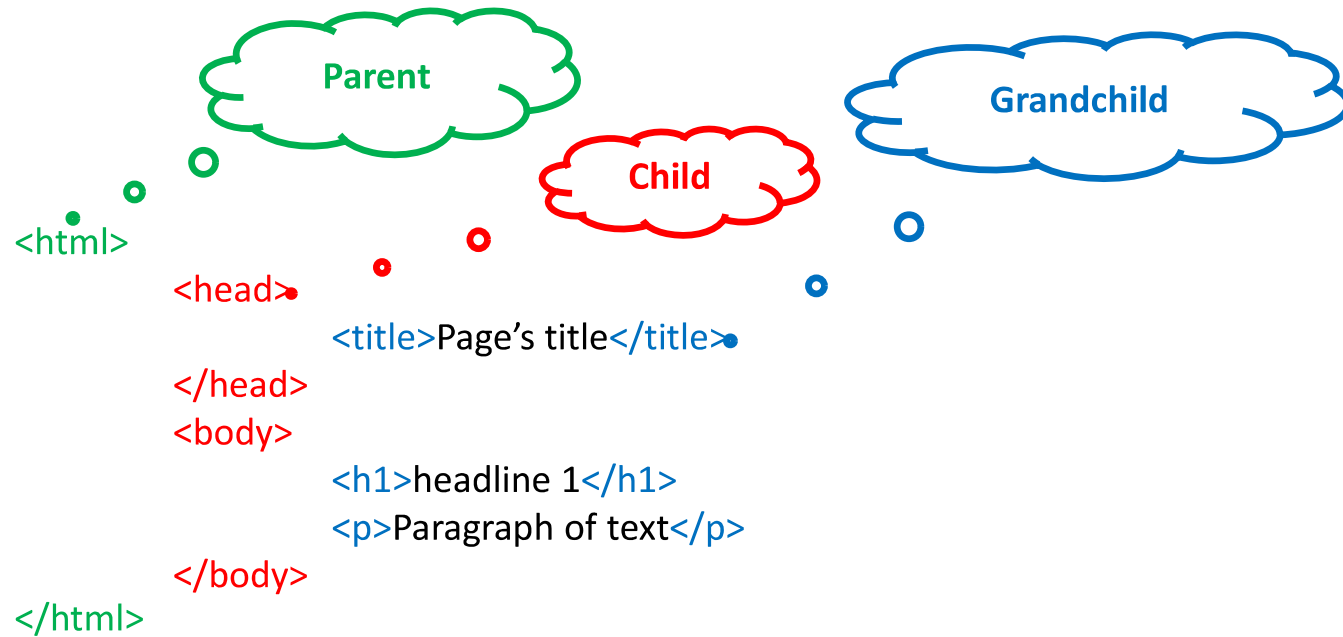
`<a href="http://www.ce.kmitl.ac.th">Computer Engineering</a>`

Attribute

Closing tag

Opening tag

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



# HTML/XHTML

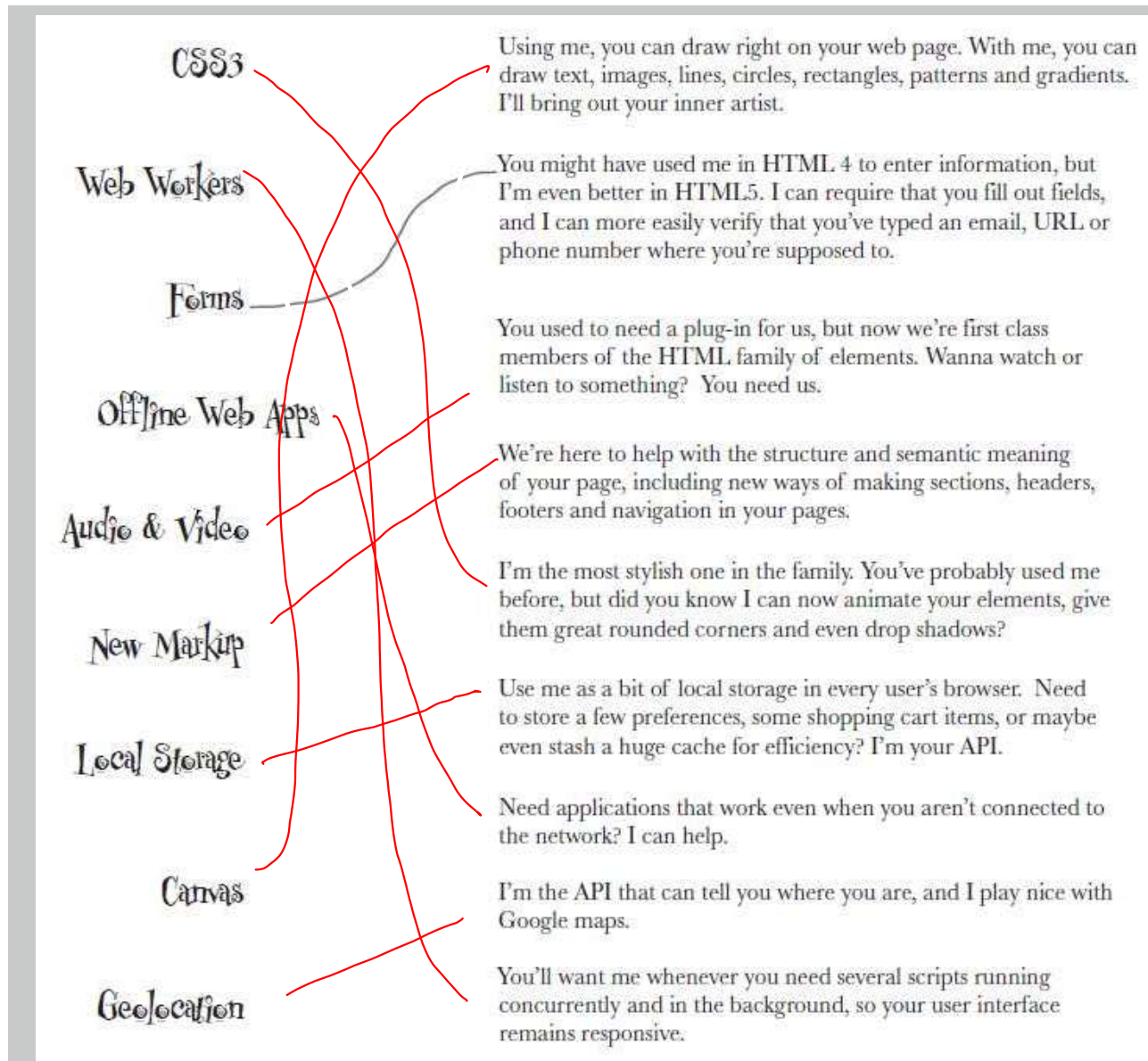
- Same main idea
- HTML is too relaxed
  - Hard to find a minor mistake
  - Ex:
    - `<h1>this is <i>KMITL</i></h1>`
    - `<h1>this is <i>KMITL</h1></i>`
- XHTML was then developed in 1998 by W3C to fix this issue
  - Strengthen rules
  - Version 2
    - too strict
    - forces the developer to change 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

ကလောင် တစ်ခု! ဘာလဲလို့လဲ?

# HTML5





# 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

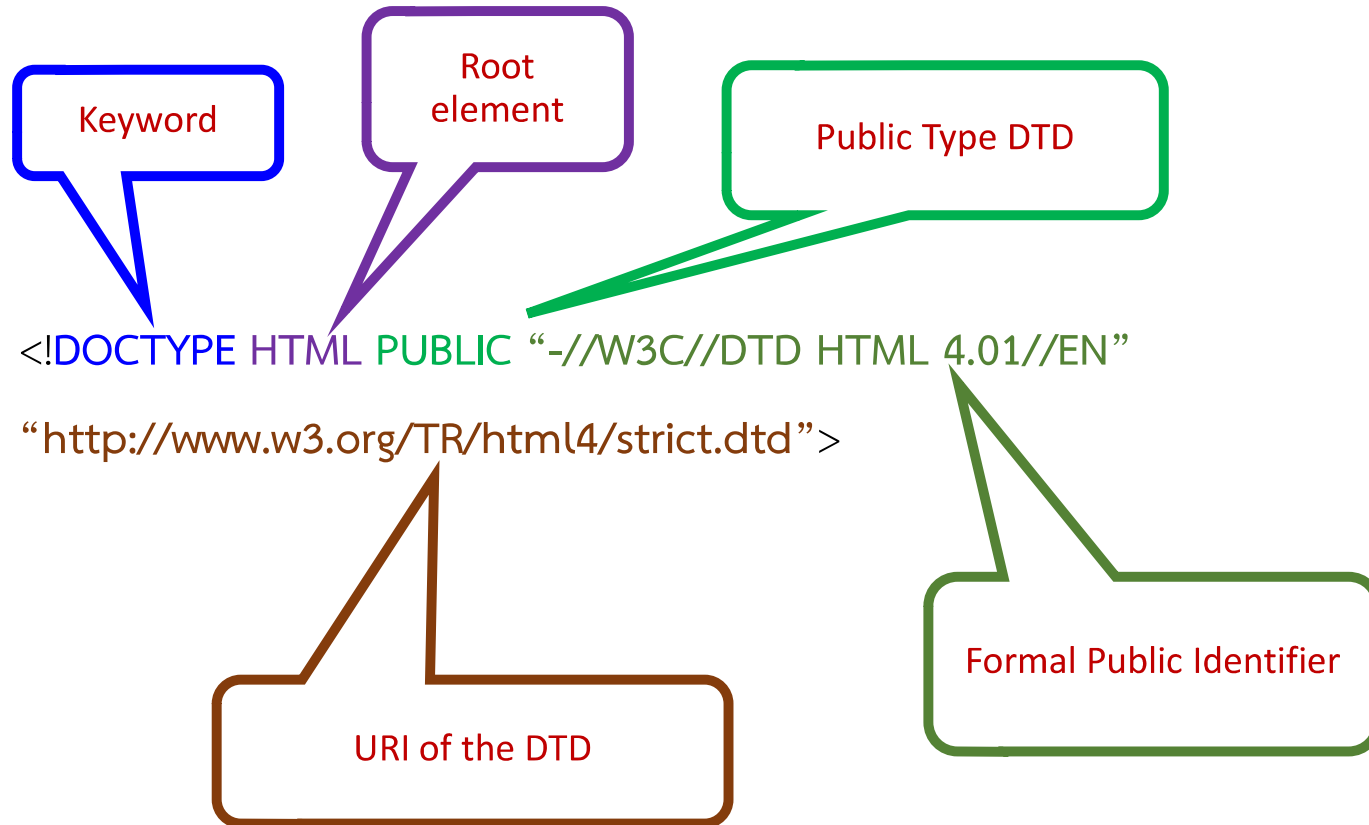
# HTML Document Type

- 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">
```



# HTML5 Document Type

# 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

# Good HTML5 practices

- Including the optional `<html>`, `<head>` and `<body>` elements
- Using lowercase tags
- Using quotation marks around attribute values
- Validate the html5: <http://validator.w3.org>

# XHTML5

- If HTML5 is too loose for you, XHTML5 may be your solution.
- To use XHTML5
  - Add xhtml namespace to the <html>
  - Ex:  
<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 <br>
  - Addresses <address>
- Phrase elements
  - <em>, <strong>, etc.
- Presentation
  - <b>, <i>, <u>, <sup>, <sub>, etc.
- Lists
  - <ul> & <li>
  - <ol> & <li>
- Editing
  - <ins> and <del>
- Structure & Grouping
  - <article>
  - <header>, <footer> and <div>
  - <span>
- Link
  - <a>
- Form
  - <input>

# Experiments

- <https://www.w3schools.com/>
- Click “Try it Yourself”

# Link and Navigation Tags

- Link to other web page

`<a href="http://www.xxx.yyy">Click here</a>`

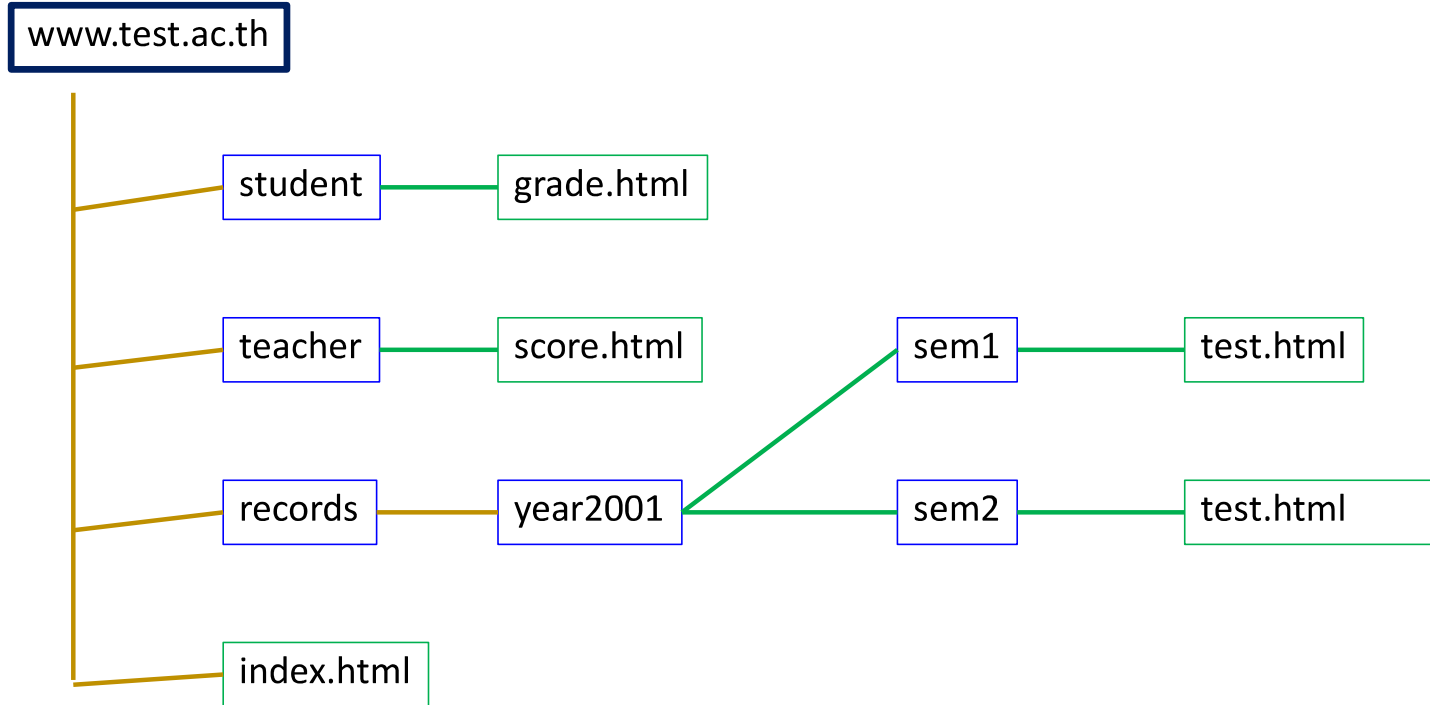
- Link to E-mail Address

`<a href="mailto:admin@kmitl.ac.th">mail to Admin</a>`

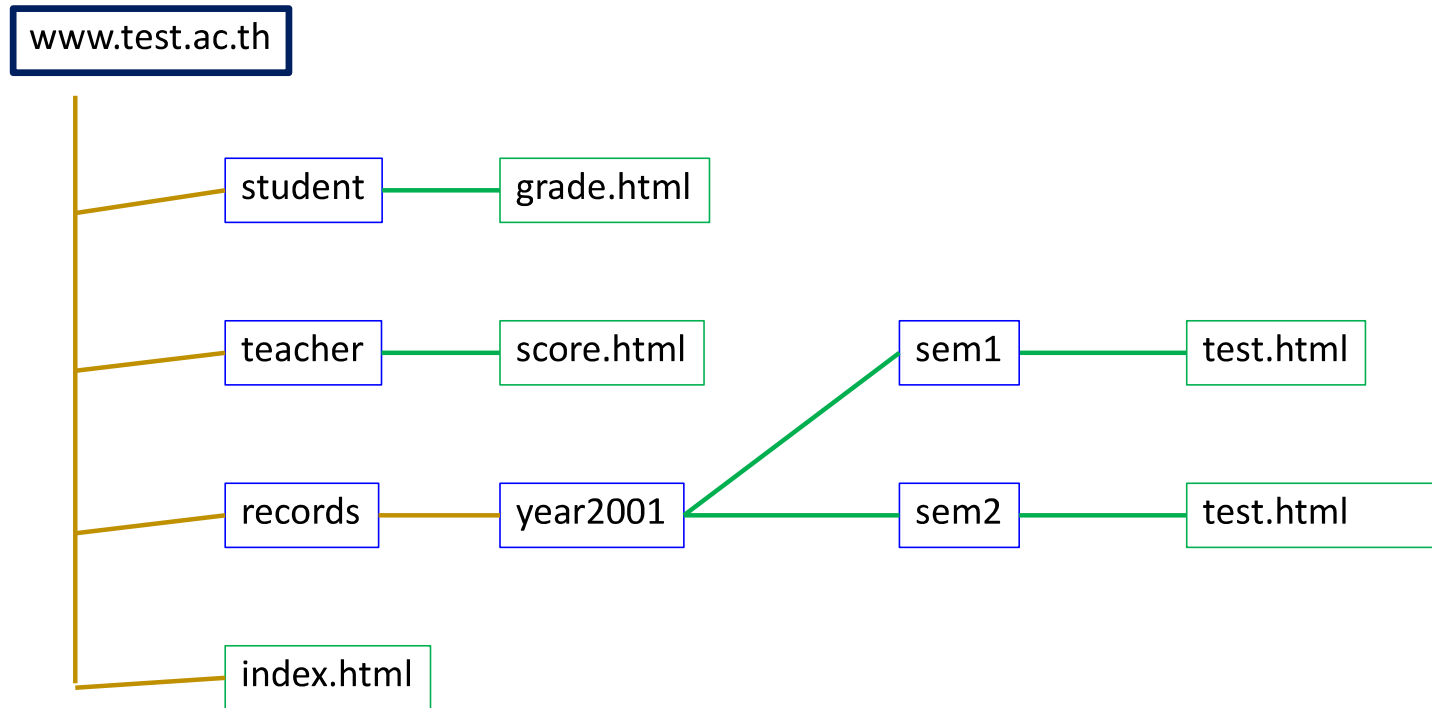
- Link to URL types

- Absolute URL
- Relative URL

# Absolute URL



- Location: <http://www.test.ac.th> or <http://www.test.ac.th/index.html>
- <http://www.test.ac.th/student/grade.html>
- <http://www.test.ac.th/records/year2001/sem1/test.html>



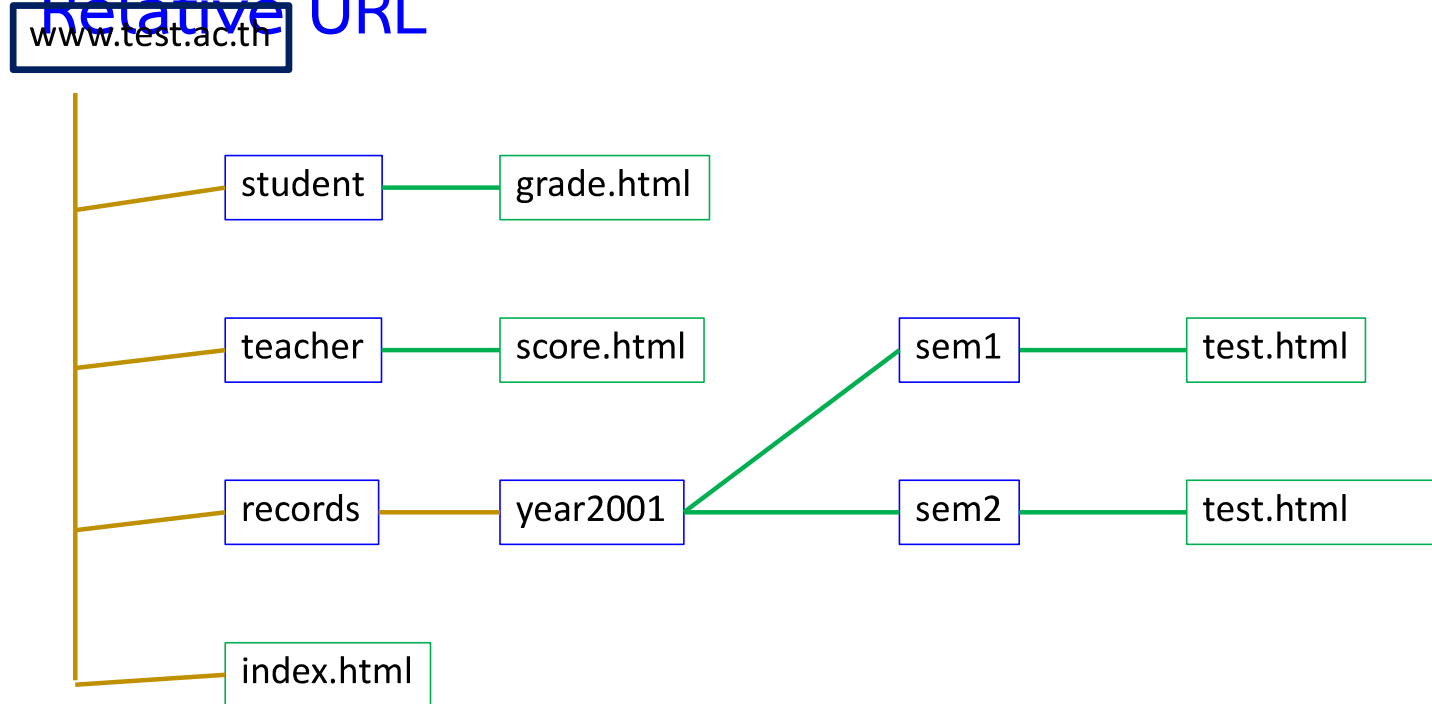
`<a href="http://www.test.ac.th/student/grade.html">Grade</a>`

`<a href="http://www.test.ac.th/teacher/score.html">Score</a>`

`<a href="http://www.test.ac.th/records/year2001/sem1/test.html">`

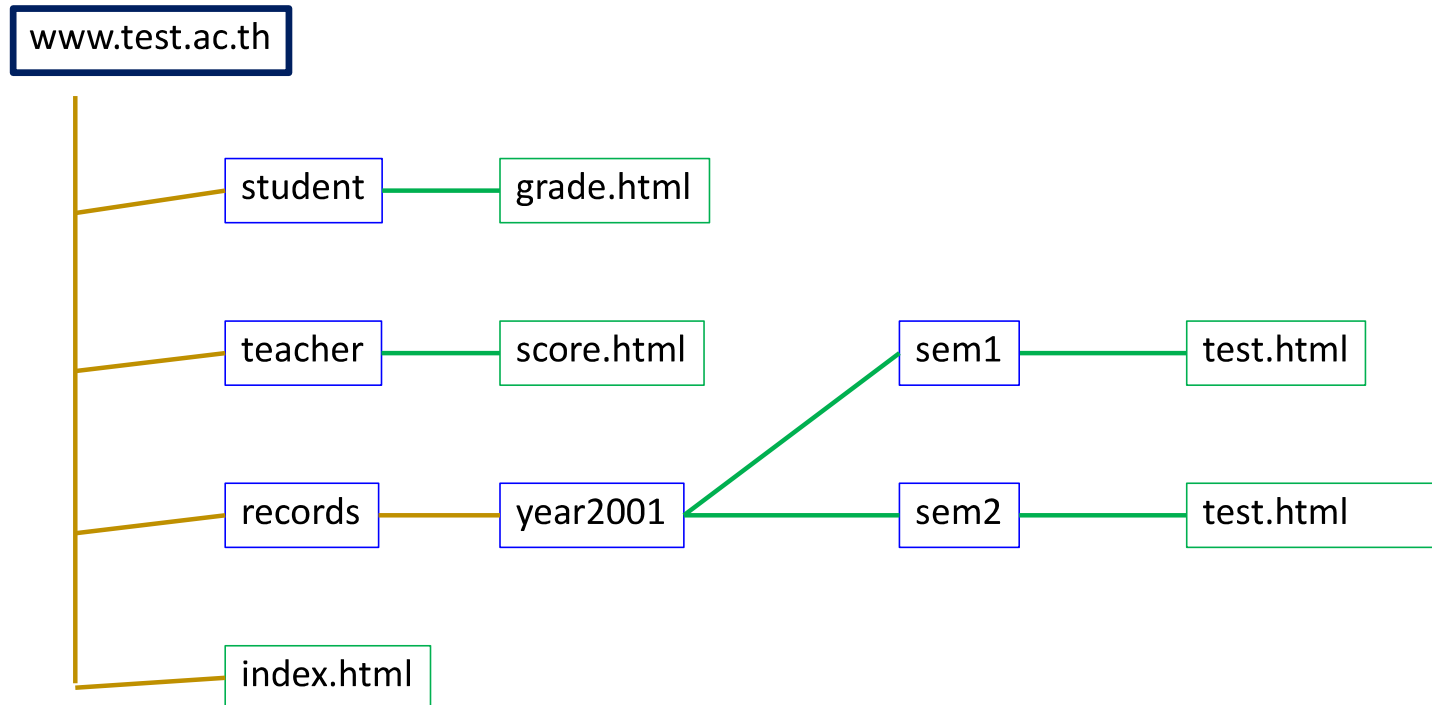
`2001/1</a>`

## Relative URL



- index.html link to grade.html

`<a href="student/grade.html">grade.html</a>`



- test.html in sem1 link to score.html
- `<a href="../../teacher/score.html">link to score</a>`
- `<a href="/teacher/score.html">link to score</a>`

# Destination Anchor

- Destination anchor

```
<a id="top">TOP</a>
```

- Link to destination anchor

```
<a href="#top">TOP</a>
```



## Other Attributes of <a>

- Charset

```
<a href="http://www.test.ac.th/" charset="ISO-8859-11">go to  
test</a>
```

- hreflang

```
<a href="http://www.test.ac.th/" hreflang="JA">go to test</a>
```

- Target

```
<a href="http://www.test.ac.th/" target="_blank">go to test</a>
```

- Tabindex

```
<a href="http://www.test.ac.th/" tabindex="1">go to test</a>
```

# Image, Audio, Video

- Adding image to the page

```

```

- Specify the size of image

```

```

- Align

```

```

- Border

```

```

- Space

```

```



- Image as links

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

```
  
```

```
</a>
```

- Image Maps

# Form

- `<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-operativemotorinsurance.co.uk/gdirect/motor/start.do

Google

### Cover Details

How many years have you held your driving licence?

When would you like the insurance to start (dd/mm/yyyy)?  -  -

Number of years No Claim Discount earned

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

Have you had any accidents or loss in the last 4 years? ☐ Yes ☐ No

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

Are there any additional drivers? ☐ Yes ☐ No

### Vehicle Details

If your vehicle is a van/pick-up, please call our Customer Contact Centre on 08457 484646 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 484646

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="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()" >
```



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



< button type="submit" > Submit < /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
```

```
< /form >
```



```
< input type="checkbox" name="chkAcceptTerms" checked="checked" >
```

In the absence of a value attribute, the value is `on`



```
<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 >
```



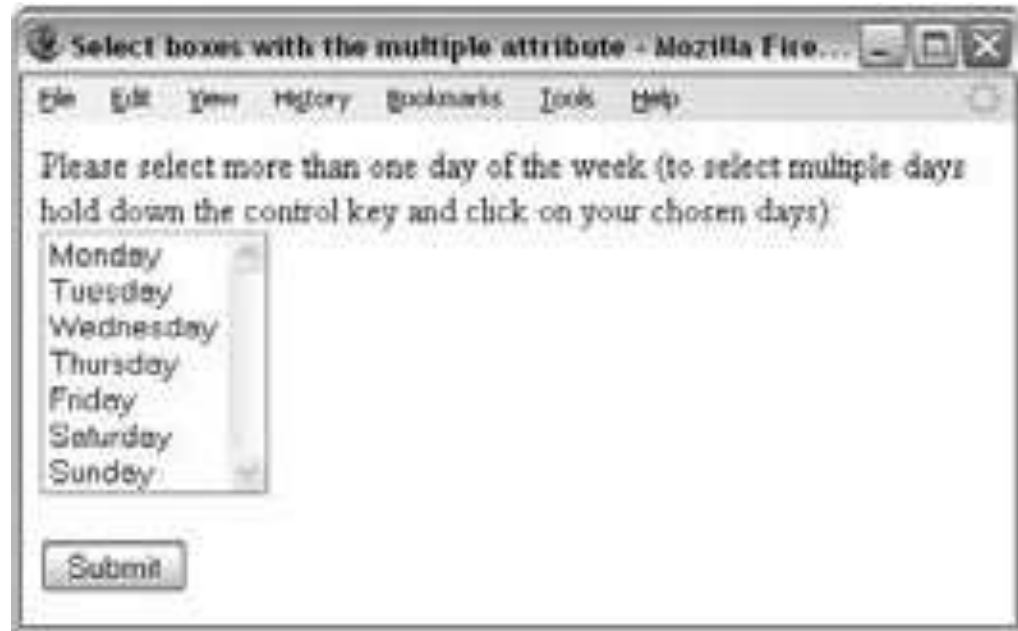
```
< select name="selColor" >  
< option selected="selected" value="" > Select color < /option >  
< option value="red" > Red < /option >  
< option value="green" > Green < /option >  
< option value="blue" > Blue < /option >  
< /select >
```



```
< select size="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 >
```

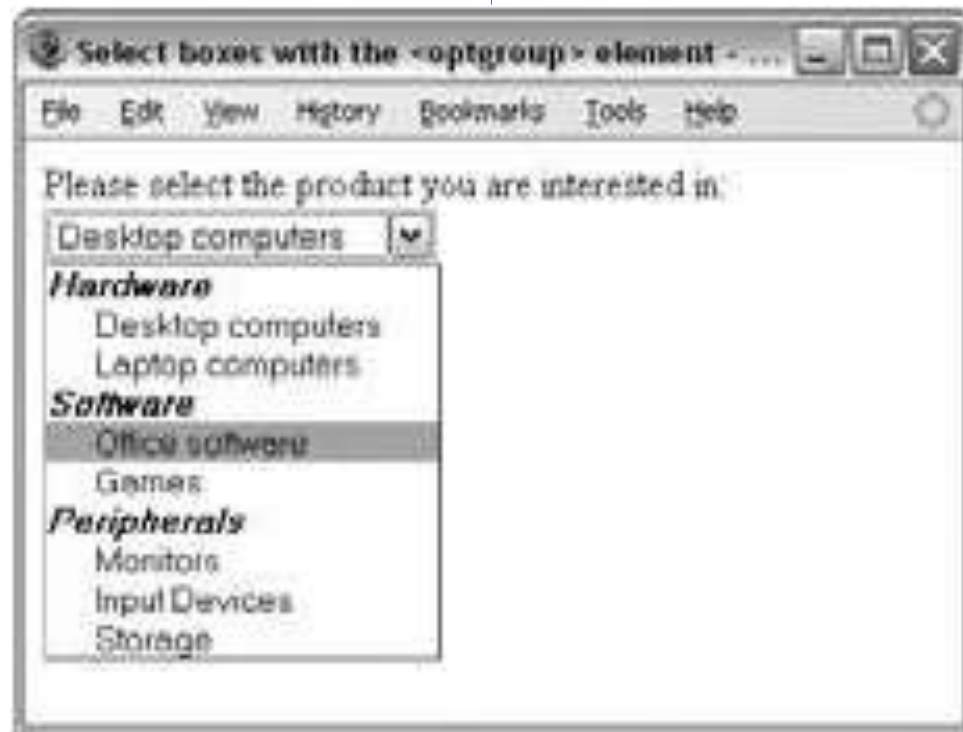


```
< select name="selDays" multiple="multiple" >  
< option value="Mon" > Monday < /option >  
< option value="Tue" > Tuesday < /option >  
< option value="Wed" > Wednesday < /option >  
< option value="Thu" > Thursday < /option >  
< option value="Fri" > Friday < /option >  
< option value="Sat" >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

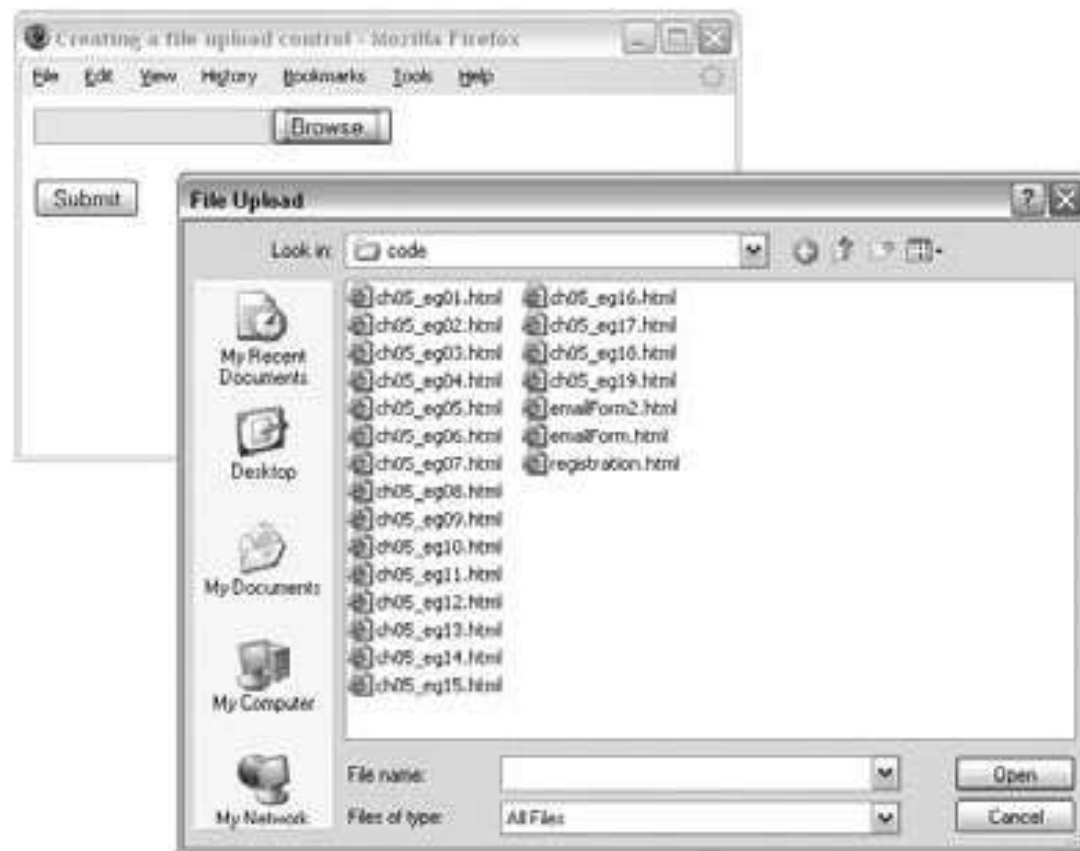


```
< select name="selInformation" >
< optgroup label="Hardware" >
< option value="Desktop" > Desktop computers < /option >
< option value="Laptop" > Laptop computers < /option >
< /optgroup >
< optgroup label="Software" >
< option value="OfficeSoftware" > Office software < /option >
< option value="Games"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

```
< 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 >
```



```
< 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 >
```

