

## ଶାସ୍ତ୍ରିକାନ୍ତ

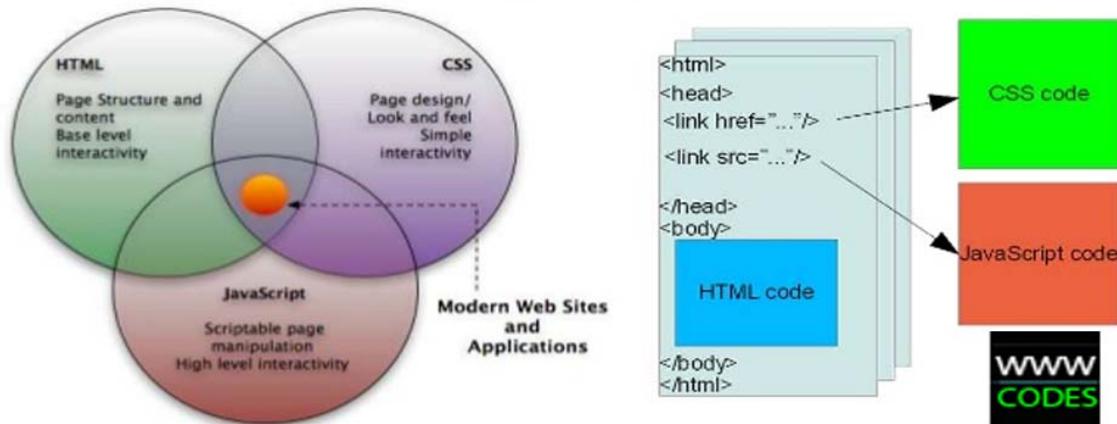
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**ទេសចរណី ១:****HTML5 SCRIPT**

នៅក្នុងមេរោគនេះ យើងនឹងបង្ហាញអ្នកអំពីរបៀបនៃការប្រើប្រាស់ ការសរស់រ និងការប្រើប្រាស់ HTML script ដើម្បី  
យើងអាចយកវាទៅបង្កើតជាលិកការណ៍ web site បានយ៉ាងងាយស្រួល។

**HTML vs CSS vs JAVASCRIPT****Overview****Web Page**

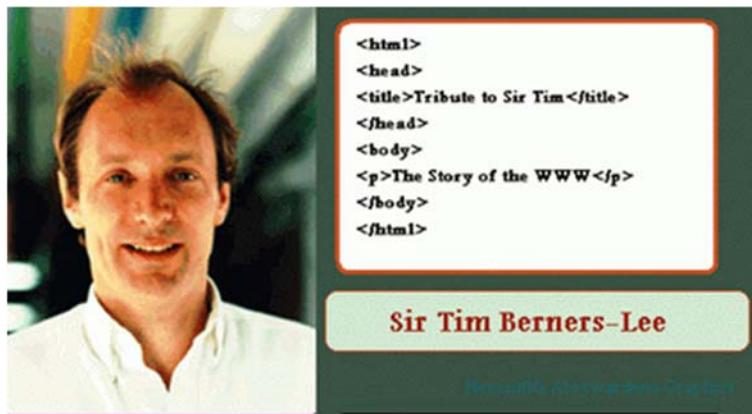
នៅក្នុងមេរោគនេះនឹងបង្ហាញអ្នកមានសមត្ថភាពដូចខាងក្រោម:

- យល់ដឹងថាអ្នកអំពីរបៀបប្រើប្រាស់ HTML ព្រមទាំងគុណសម្រាតិរបស់វា
- យល់ដឹងអំពី structure របស់ HTML
- អាចចែះប្រើប្រាស់នូវ elements របស់ HTML
- ចែះ formart content លើ website
- យល់ដឹងអំពីរបៀបង្កើត layout ដោយប្រើប្រាស់ HTML

- យល់ដឹងអំពី responsive page
- ចែកប្រើប្រាស់ HTML Form

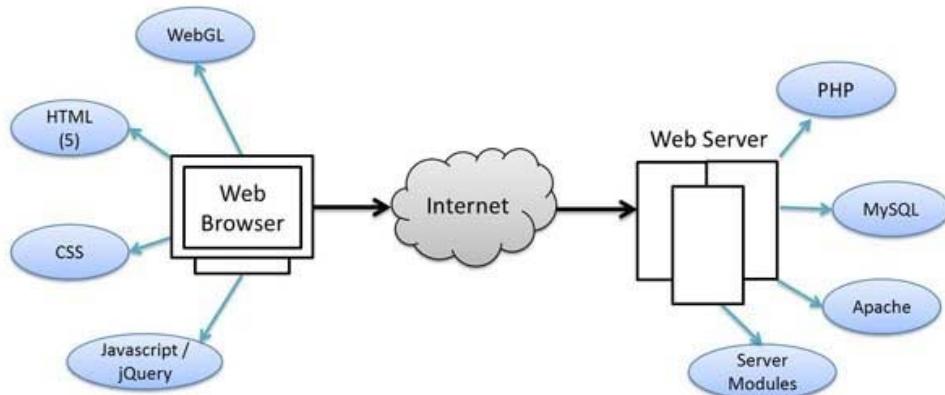
### 1.1. យល់ដឹងអំពី HTML(Introduction to HTML)

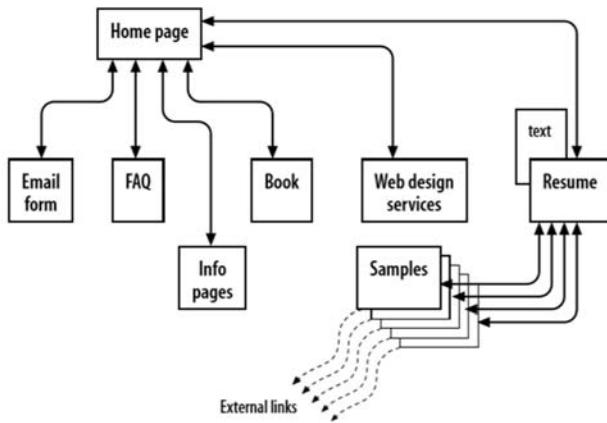
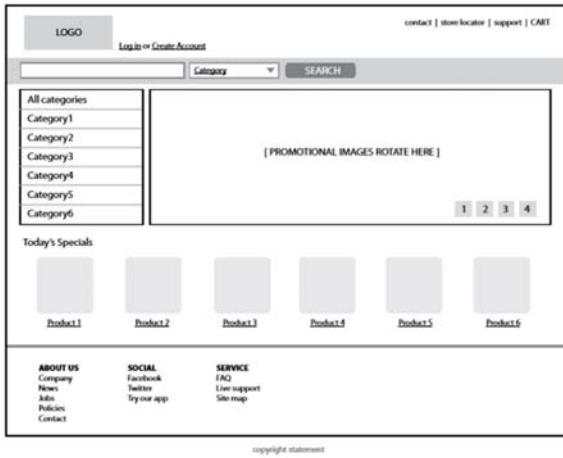
HTML តារាងពេញគឺ Hyper Text Markup Language, ដែលជា language ដែលបានបង្កើតនូវរដ្ឋមន្ត្រីបណ្តុះបណ្តាលក Berners-Lee នៅចុងឆ្នាំ 1991 ហើយក៏បានអភិវឌ្ឍន៍ទៅជា "HTML 2.0" ដែលជា standard ដំបូងគេរបស់ HTML ដែលបានដំឡើរការចាប់តាំងពីឆ្នាំ 1995។ HTML 4.01 កំណត់ឡាយថ្មីសំខាន់មួយឡើងរបស់ HTML នៅចុងឆ្នាំ 1999។ HTML 4.01 version ត្រូវបានគេប្រើប្រាស់អស់រយៈពេលយ៉ាងយុរប្បុរាណដល់ពេលបច្ចុប្បន្នឡើងពេលមាន HTML-5 version ដែលត្រូវបានគេប្រើប្រាស់បន្ថែមពីឆ្នាំ HTML 4.01 និងជាក់ឲ្យប្រើប្រាស់នៅឆ្នាំ 2012.



HTML គឺជាការសារដែលគេយកមកធ្វើការរៀបចំបង្កើតជា web page។

- **HTML** = Hyper Text Markup Language
- **HTML** គឺវិ描述នូវ structure របស់ Web pages ដោយប្រើប្រាស់នូវការ markup
- **HTML elements** គឺជា building blocks របស់ HTML pages
- **HTML elements** ត្រូវបានគេសរសៃរដី tags
- **HTML tags** ជាបំណែកនៃ content ដូចជា "heading", "paragraph", "table", .....
- **Browsers** មិនបង្ហាញ HTML tags, but use them to render the content of the page
- **HTML** គឺជា client side script។





### Example or Structure of HTML

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<h1>My First Heading</h1>
<p>My first paragraph.</p>
</body>
</html>

```

### ମାନ୍ୟମୂଳ୍ୟ:

- The <!DOCTYPE html> declaration defines this document to be HTML5
- The <html> element is the root element of an HTML page
- The <head> element contains meta information about the document
- The <title> element specifies a title for the document
- The <body> element contains the visible page content
- The <h1> element defines a large heading
- The <p> element defines a paragraph

```

<html>
  <head>
    <title>Page title</title>
  </head>
  <body>
    <h1>This is a heading</h1>
    <p>This is a paragraph.</p>
    <p>This is another paragraph.</p>
  </body>
</html>

```

### ចំណាំ

រាល់ data ដែលយើងបញ្ចូលវាត្វុងតម្លៃនៃ <body>.....</body> វានឹងបង្ហាញលើ browsers។

### ហេតុអ្នកព្រមទាំង <!DOCTYPE>

- The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly
- It must only appear once, at the top of the page (before any HTML tags).
- The <!DOCTYPE> declaration is not case sensitive.
- The <!DOCTYPE> declaration for **HTML5** is: **<!DOCTYPE html>**

### អ្នកថាជា HTML Tags

HTML tags are element names surrounded by angle brackets:

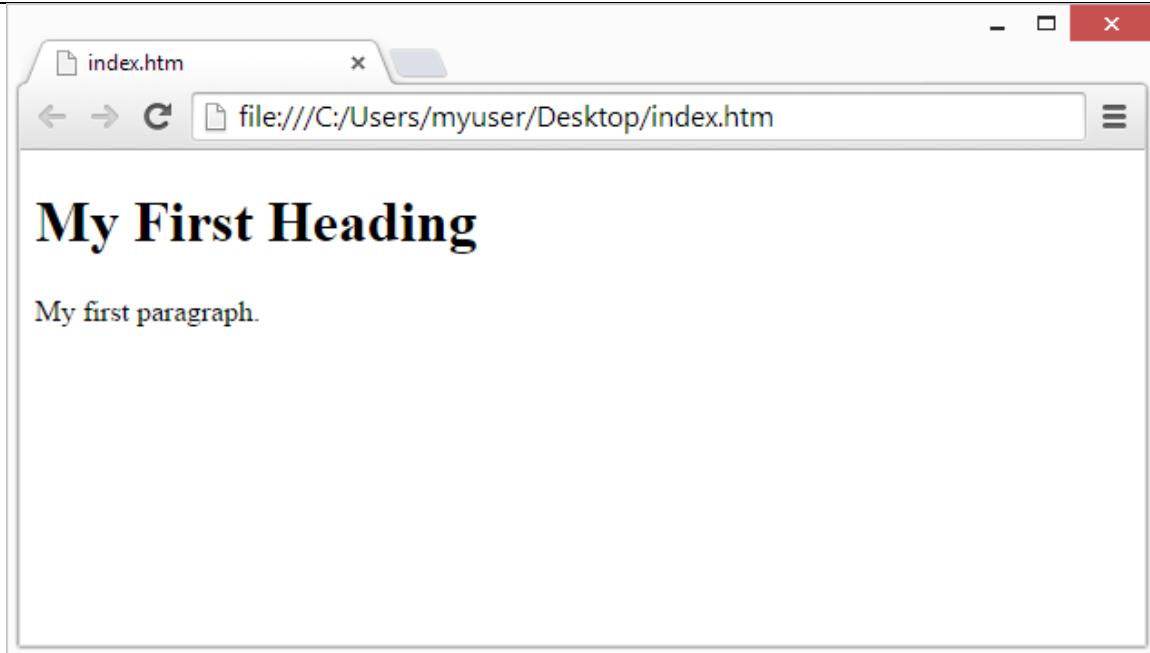
### របម្យ

<tagname>content goes here...</tagname>

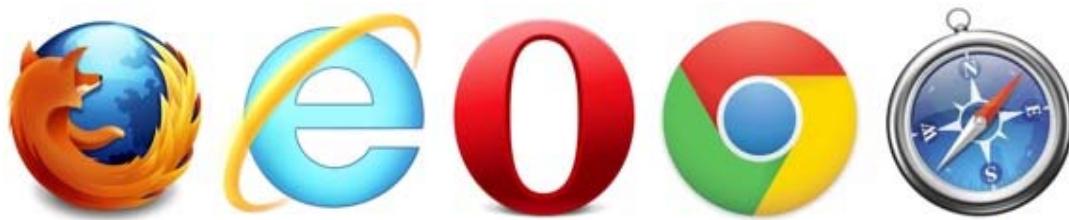
- HTML tags ជាទុទៀមានទំនួរជាង <p> និង </p>
- ឧងមុខហេតា start tag or opening tag និងឧងក្រាយហេតា end tag or closing tag

### អ្នកថាជា Web Browsers

Web Browsers(IE, Firefox, Chrome, Safari...) គឺសំដើលើទូរកម្មវិធីដែលតែប្រើប្រាស់វាដើម្បីធ្វើការប្រើប្រាស់ website។ វាត្រូវការការ read HTML document ហើយនឹងបង្ហាញចេញនូវព័ត៌មាន។ វាចិនមែនបង្ហាញនូវ HTML tags នៅទេ តែវាបានកំណត់ថានឹង document នៅត្រូវបង្ហាញយ៉ាងដូចមេច។



ឧងគ្រាមជាតិ browser ដែលទេញនិយមប្រើប្រាស់បច្ចុប្បន្ន



### តើ HTML Versions មានអ្នខែ៖?

Version	Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2014

ឧងគ្រាមជាគាំពីរ script HTML4 vs HTML5

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
  "http://www.w3.org/TR/html4/strict.dtd">
<HTML>
  <HEAD>
    <TITLE>The document title</TITLE>
  </HEAD>
  <BODY>
    <H1>Main heading</H1>
    <P>A paragraph.</P>
    <P>Another paragraph.</P>
    <UL>
      <LI>A list item.</LI>
      <LI>Another list item.</LI>
    </UL>
  </BODY>
</HTML>
```

← HTML4

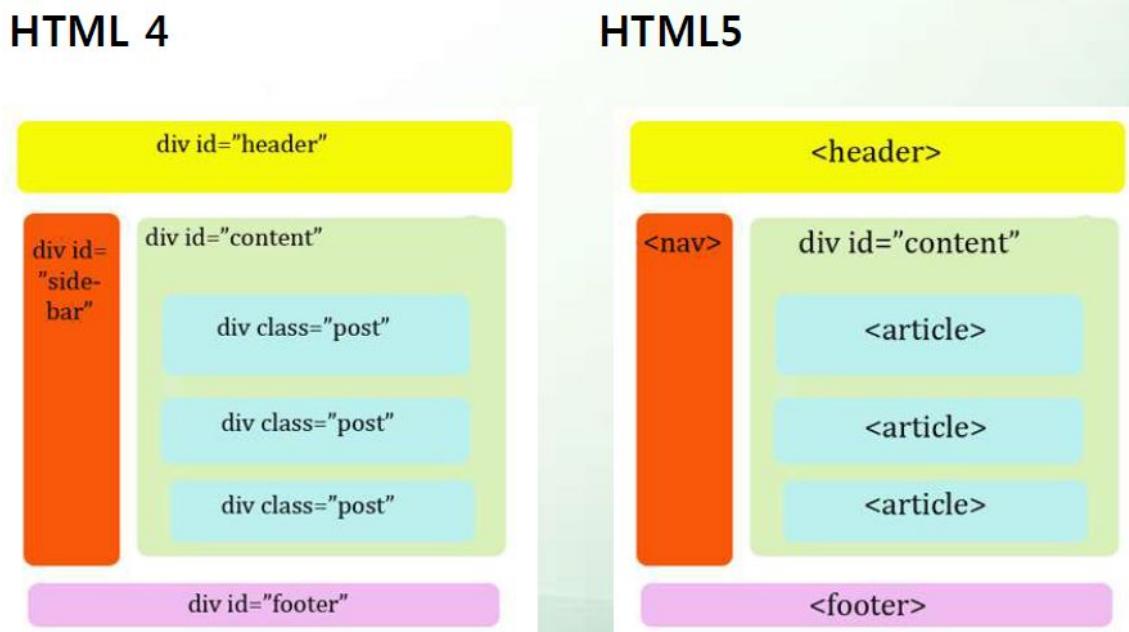
  

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>Title of the document</title>
  </head>
  <body>
    Content of the document.....
  </body>
</html>
```

← HTML5

VS

HTML5 ត្រូវបានបង្កើតឡើងដោយធ្វើការបន្ថែមនូវ component ជាប្រព័ន្ធឌីលី HTML4 ដែលជាទុទាំងអស់ support បានដោយមេរណ៍មេរណ៍ browser ដែលត្រូវបានគេបង្កើតឡើង។ HTML5 ត្រូវបានសម្រាប់ដោយការប្រើប្រាស់ជាមួយនឹង The <!DOCTYPE html> declaration។



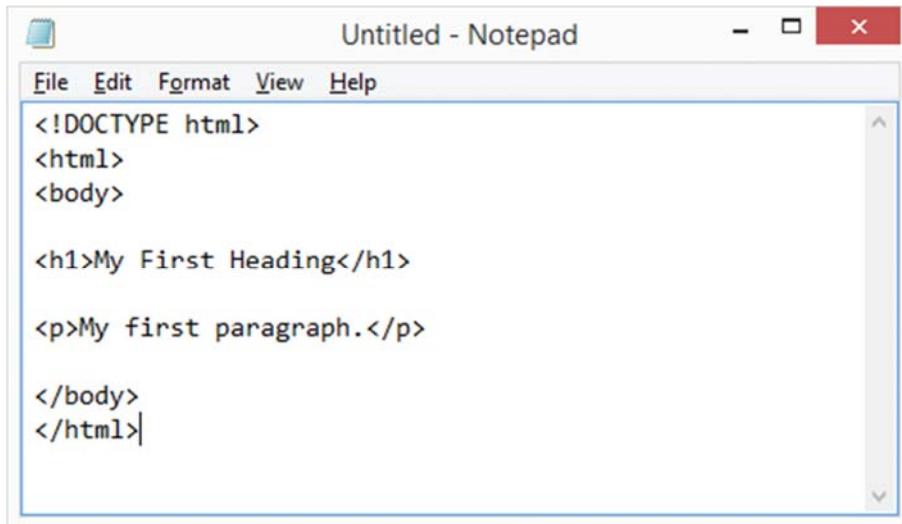
# **HTML5 Web Applications**

### អ្នកទីធ្វើ HTML Editors?

ជាកម្មវិធីដែលយើងរាយកម្មកសរសរវភាសា html script បាន។ មានដូចជា Notepad++, Komodo Edit, Netbean IDE, Visual Studio, RJ TextEd, Light Table, Adobe Dreamweaver, .....

- សម្រាប់អ្នកប្រើប្រាស់Window : Notepad, Notepad++, Dreamwaver, ...
- សម្រាប់អ្នកប្រើប្រាស់Mac : TextEditor, Dreamwaver, ...

បើក notepad រួចសិរសិរី text ដូចខាងក្រោម៖



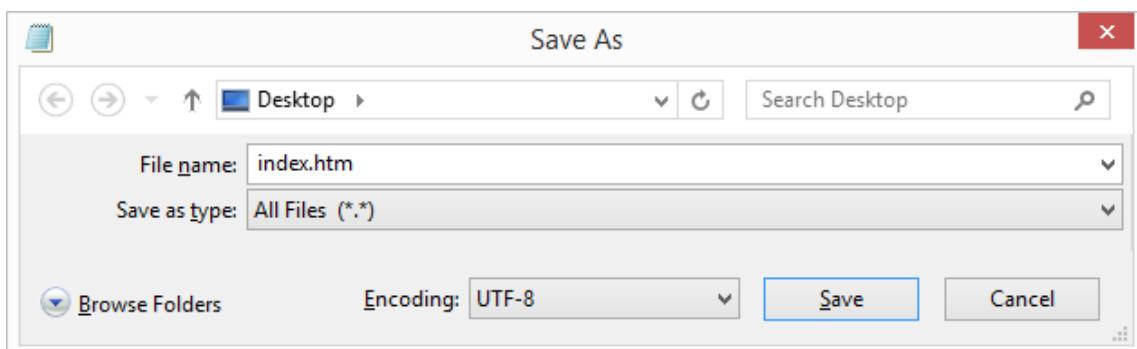
```
<!DOCTYPE html>
<html>
<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

បន្ទាប់មក save វាទុកលើទីតាំងណាមួយ



Right-click លើ file ដែលអ្នកបាន save ទីក ហើយយក open with ដើម្បីបើកជាមួយ web browser ណាមួយដែលអ្នកចង់មើល។

### អ្នកទីធ្វើ HTML Elements?

វាជាអ្នកយើងដែលបានផ្តើមពី start tag រហូតដល់ end tag។ ជាពីរមាន start tag និង end tag របស់វា ហើយនៅចន្លោះកណ្តាលគឺជា content របស់វា។

**Syntax :** <tagname>Content goes here...</tagname>

**Example :** <p>My first paragraph.</p>

Start tag	Element content	End tag
<h1>	My First Heading	</h1>
<p>	My first paragraph.	</p>

### អ្នកចាត់ HTML Attributes?

Attributes ជាសមាសធាតុដូចជាដំឡើងដូចតិចនៃទំនាក់ទំនាក់មានបន្លឹមរបស់ HTML elements។

- គ្រប់ HTML elements គឺចម្លាន attributes
- Attributes ផ្តល់ព័ត៌មានបន្លឹមលើ element ណាមួយ
- Attributes ត្រូវបានគេយកមកសរស់រក្សាទិន្នន័យ start tag
- Attributes ត្រូវបានគេសរស់រមកជាគីត់ name/value ឧទាហរណ៍ name="value"
- គូរសរស់រក្សាទិន្នន័យ Lowercase Attributes
- Values គូរសរស់រក្សាទិន្នន័យ Quote



### ឧទាហរណ៍

```
<a href=https://www.w3schools.com>
```

```
<p title='John "ShotGun" Nelson'>
```

```
<p title="John 'ShotGun' Nelson">
```

### Standard Attribute:

Attribute	Options	Function
accesskey	User Defined	Specifies a keyboard shortcut to access an element.
align	right, left, center	Horizontally aligns tags
background	URL	Places an background image behind an element
bgcolor	numeric, hexidecimal, RGB values	Places a background color behind an element
class	User Defined	Classifies an element for use with Cascading Style Sheets.

contenteditable	true, false	Specifies if the user can edit the element's content or not.
contextmenu	Menu id	Specifies the context menu for an element.
data-XXXX	User Defined	Custom attributes. Authors of a HTML document can define their own attributes. Must start with "data-".
draggable	true, false, auto	Specifies whether or not a user is allowed to drag an element.
height	Numeric Value	Specifies the height of tables, images, or table cells.
hidden	hidden	Specifies whether element should be visible or not.
id	User Defined	Names an element for use with Cascading Style Sheets.
item	List of elements	Used to group elements.
itemprop	List of items	Used to group items.
spellcheck	true, false	Specifies if the element must have it's spelling or grammar checked.
style	CSS Style sheet	Specifies an inline style for an element.
subject	User define id	Specifies the element's corresponding item.
tabindex	Tab number	Specifies the tab order of an element.
title	User Defined	"Pop-up" title for your elements.
v-align	top, middle, bottom	Vertically aligns tags within an HTML element.
width	Numeric Value	Specifies the width of tables, images, or table cells.

Attribute	Description
alt	Specifies an alternative text for an image, when the image cannot be displayed
disabled	Specifies that an input element should be disabled
href	Specifies the URL (web address) for a link
id	Specifies a unique id for an element
src	Specifies the URL (web address) for an image
style	Specifies an inline CSS style for an element
title	Specifies extra information about an element (displayed as a tool tip)

### អ្នកធ្វើ Comment?

យើងបានបង្ហាញ comment តើដោលបំណងដូចខាងក្រោម៖

- បិទ script មិនទ្វាត់ណើរការ
- ដើម្បីសរសើរ comment នៃលូបី block នៃ script

<!-- Write your comments here -->

Or

<!-- Do not display this at the moment



-->

### អ្នកធ្វើពី Event?

គឺជាសកម្មភាពដែលបានធ្វើឡើងឡើងនៅលើ user បានធ្វើឡើងនៅលើ web page ដូចជាដឹកជញ្ជូនទៅក្នុង text ឬ images ឬ links.... ។ ១ event ទាំងនេះនឹងជំណើរការដោយបស់ខ្លួនដោយ vbscript ឬ javascript ។

Attribute	Value	Description
offline	script	Triggers when the document goes offline
onabort	script	Triggers on an abort event
onafterprint	script	Triggers after the document is printed
onbeforeunload	script	Triggers before the document loads
onbeforeprint	script	Triggers before the document is printed
onblur	script	Triggers when the window loses focus
oncanplay	script	Triggers when media can start play, but might has to stop for buffering
oncanplaythrough	script	Triggers when media can be played to the end, without stopping for buffering
onchange	script	Triggers when an element changes
onclick	script	Triggers on a mouse click
oncontextmenu	script	Triggers when a context menu is triggered
ondblclick	script	Triggers on a mouse double-click
ondrag	script	Triggers when an element is dragged
ondragend	script	Triggers at the end of a drag operation
ondragenter	script	Triggers when an element has been dragged to a valid drop target
ondragleave	script	Triggers when an element leaves a valid drop target
ondragover	script	Triggers when an element is being dragged over a valid drop target
ondragstart	script	Triggers at the start of a drag operation
ondrop	script	Triggers when dragged element is being dropped
ondurationchange	script	Triggers when the length of the media is changed

onemptied	script	Triggers when a media resource element suddenly becomes empty.
onended	script	Triggers when media has reach the end
onerror	script	Triggers when an error occur
onfocus	script	Triggers when the window gets focus
onformchange	script	Triggers when a form changes
onforminput	script	Triggers when a form gets user input
onhaschange	script	Triggers when the document has change
oninput	script	Triggers when an element gets user input
oninvalid	script	Triggers when an element is invalid
onkeydown	script	Triggers when a key is pressed
onkeypress	script	Triggers when a key is pressed and released
onkeyup	script	Triggers when a key is released
onload	script	Triggers when the document loads
onloadeddata	script	Triggers when media data is loaded
onloadedmetadata	script	Triggers when the duration and other media data of a media element is loaded
onloadstart	script	Triggers when the browser starts to load the media data
onmessage	script	Triggers when the message is triggered
onmousedown	script	Triggers when a mouse button is pressed
onmousemove	script	Triggers when the mouse pointer moves
onmouseout	script	Triggers when the mouse pointer moves out of an element
onmouseover	script	Triggers when the mouse pointer moves over an element
onmouseup	script	Triggers when a mouse button is released
onmousewheel	script	Triggers when the mouse wheel is being rotated
onoffline	script	Triggers when the document goes offline
onoine	script	Triggers when the document comes online
ononline	script	Triggers when the document comes online
onpagehide	script	Triggers when the window is hidden

onpageshow	script	Triggers when the window becomes visible
onpause	script	Triggers when media data is paused
onplay	script	Triggers when media data is going to start playing
onplaying	script	Triggers when media data has start playing
onpopstate	script	Triggers when the window's history changes
onprogress	script	Triggers when the browser is fetching the media data
onratechange	script	Triggers when the media data's playing rate has changed
onreadystatechange	script	Triggers when the ready-state changes
onredo	script	Triggers when the document performs a redo
onresize	script	Triggers when the window is resized
onscroll	script	Triggers when an element's scrollbar is being scrolled
onseeked	script	Triggers when a media element's seeking attribute is no longer true, and the seeking has ended
onseeking	script	Triggers when a media element's seeking attribute is true, and the seeking has begun
onselect	script	Triggers when an element is selected
onstalled	script	Triggers when there is an error in fetching media data
onstorage	script	Triggers when a document loads
onsubmit	script	Triggers when a form is submitted
onsuspend	script	Triggers when the browser has been fetching media data, but stopped before the entire media file was fetched
ontimeupdate	script	Triggers when media changes its playing position
onundo	script	Triggers when a document performs an undo
onunload	script	Triggers when the user leaves the document
onvolumechange	script	Triggers when media changes the volume, also when volume is set to "mute"
onwaiting	script	Triggers when media has stopped playing, but is expected to resume

## 1.2. Heading <h>...</h>

HTML Headings ត្រូវបានគេប្រើប្រាស់បាបពី <h1> ដល់ <h6>។ គេប្រើការលើអក្សរដែលសំខាន់ៗ heading ភាន់ទៅក្នុងអក្សរបង្ហាញកាន់ដំឡើង។

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

**ចំណាំ៖** Browsers នឹងធ្វើការបន្ថែមនូវ white space(margin) ខាងមុខ និងខាងក្រោមដោយស្ម័យប្រវត្តិ។

### ការអនីញ្ញា Heading ភាន់ខំ

```
<h1 style="font-size:60px;">Heading 1</h1>
```

### ការជាក់ HTML Horizontal Rules

The **<hr>** tag បង្កើតការចុះបន្ទាត់ក្នុង HTML page, ហើយបង្ហាញជាតុលាការ horizontal rule.

The **<hr> element** ត្រូវបានគេប្រើប្រាស់ដើម្បីការផ្តល់ព័ត៌មានថា content ពីត្រូវ (or define a change) ក្នុង HTML page:

```
<h1>This is heading 1</h1>
<p>This is some text.</p>
<hr>
<h2>This is heading 2</h2>
<p>This is some other text.</p>
<hr>
```

### ផ្តល់ព័ត៌មាន HTML <head> Element

The HTML **<head>** element has nothing to do with HTML headings.

The **<head> element** តើជាការផ្តល់ព័ត៌មាន metadata នៃ HTML document ដែលជាបន្ទាត់អំពី HTML document។ Metadata មិនបង្ហាញនៅទេ។

The **<head> element** នៅចំន៉ោះ <html> tag និង <body> tag:

```
<!DOCTYPE html>
<html>
<head>
<title>My First HTML</title>
<meta charset="UTF-8">
</head>
<body>
```

.....  
.....

**ចំណាំ៖** Head ជាទូទៅគេប្រើរាយដើម្បីកំណត់នូវ document title, character set, styles, links, scripts, ហើយនឹង meta information ដើរក្នុងទៅ។

### 1.3. Meta Elements

**Metadata** : វាគ្រួចបានគេប្រើប្រាស់សម្រាប់បន្ថែមទូទៅពីអាជីវកម្មនៃទោនកម្រិតខ្លួន ដូចជា author, expiry date, a list of keywords, document author ។លើ ជាទូទៅរាយចិនបង្ហាញនូវរាលើ document ទ្វីយេ ហើយ <meta> tag គ្រួចបានគេប្រើប្រាស់នៅចន្លោះ <head>...</head>

#### Attribute សំខាន់របស់ Metadata

Sr.No	Attribute & Description
1	<b>Name</b>  Name for the property. Can be anything. Examples include, keywords, description, author, revised, generator etc.
2	<b>content</b>  Specifies the property's value.
3	<b>scheme</b>  Specifies a scheme to interpret the property's value (as declared in the content attribute).
4	<b>http-equiv</b>  Used for http response message headers. For example, http-equiv can be used to refresh the page or to set a cookie. Values include content-type, expires, refresh and set-cookie.

#### របៀប <meta> ដើម្បីកំណត់ keyword សំខាន់ៗ

```
<!DOCTYPE html>
<html>
<head>
```

```
<title>Meta Tags Example</title>
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
</head>
<body>
<p>Hello HTML5!</p>
</body>
</html>
```

**ប្រើ <meta> ដើម្បី short description**

```
<!DOCTYPE html>
<html>
<head>
<title>Meta Tags Example</title>
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
<meta name = "description" content = "Learning about Meta Tags." />
</head>
<body>
<p>Hello HTML5!</p>
</body>
</html>
```

**ប្រើ <meta> ផ្តល់ព័ត៌មាននៃពេលចុងក្រោយដែលdocument ត្រូវបានគេupdate**

```
<!DOCTYPE html>
<html>
<head>
<title>Meta Tags Example</title>
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
<meta name = "description" content = "Learning about Meta Tags." />
<meta name = "revised" content = "Tutorialspoint, 3/7/2014" />
</head>
<body>
<p>Hello HTML5!</p>
</body>
</html>
```

**ប្រើ <meta> ដើម្បី Refresh document(គិតជា second)**

```
<!DOCTYPE html>
<html>
<head>
<title>Meta Tags Example</title>
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
<meta name = "description" content = "Learning about Meta Tags." />
<meta name = "revised" content = "Tutorialspoint, 3/7/2014" />
<meta http-equiv = "refresh" content = "5" />
</head>
<body>
<p>Hello HTML5!</p>
</body>
</html>
```

**ប្រើ <meta> កំណត់ពេលដើម្បីបើក page ផ្សេងទៀត(page redirection)**

```
<!DOCTYPE html>
<html>
<head>
<title>Meta Tags Example</title>
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
<meta name = "description" content = "Learning about Meta Tags." />
<meta name = "revised" content = "Tutorialspoint, 3/7/2014" />
<meta http-equiv = "refresh" content = "5; url = http://www.tutorialspoint.com" />
</head>
<body>
<p>Hello HTML5!</p>
</body>
</html>
```

### **Setting Cookies**

Cookie គឺជាជិន្ទីយដែលត្រូវបានគេរក្សាទុកដ្ឋាន small files នៃ Computer, ហើយវាត្រូវបានធ្វើការដោយប្រព័ន្ធអារាន់ង់ web browser និង web server ដើម្បីរក្សាយបាននូវទំនាក់ទំនងព័ត៌មានរបស់ដែល web application ត្រូវការ។

យើងអាចប្រើ <meta> tag ដើម្បីរក្សាទុកនូវតែម្រួច cookies បែន្រាស់ client side ហើយព័ត៌មាននេះនឹងត្រូវបានទេប្រើប្រាស់ឡើងវិញដោយ Web Server ដើម្បី track នូវព័ត៌មាន site visitor។

ឧទាហរណ៍ខាងក្រោមនឹង redirecting current page ទៅកាន់ page ផ្សេងទៀតនៃ អវត្ដនាប័ប.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Meta Tags Example</title>
    <meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
    <meta name = "description" content = "Learning about Meta Tags." />
    <meta name = "revised" content = "Tutorialspoint, 3/7/2014" />
    <meta http-equiv = "cookie" content = "userid = xyz;
      expires = Wednesday, 08-Aug-15 23:59:59 GMT;" />
  </head>
  <body>
    <p>Hello HTML5!</p>
  </body>
</html>
```

បើអ្នកមិនបានដាក់ expiration date និង time ទៅ cookie នឹងត្រូវបានលុបចេញព្យាយាមនៅពេលដែរ browser ប្រើបានបីទេ។

**Note** – You can check PHP and Cookies tutorial for a complete detail on Cookies.

### Setting Author Name

```
<!DOCTYPE html>
<html>
  <head>
    <title>Meta Tags Example</title>
    <meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
    <meta name = "description" content = "Learning about Meta Tags." />
    <meta name = "author" content = "Mahnaz Mohtashim" />
  </head>
  <body>
    <p>Hello HTML5!</p>
  </body>
</html>
```

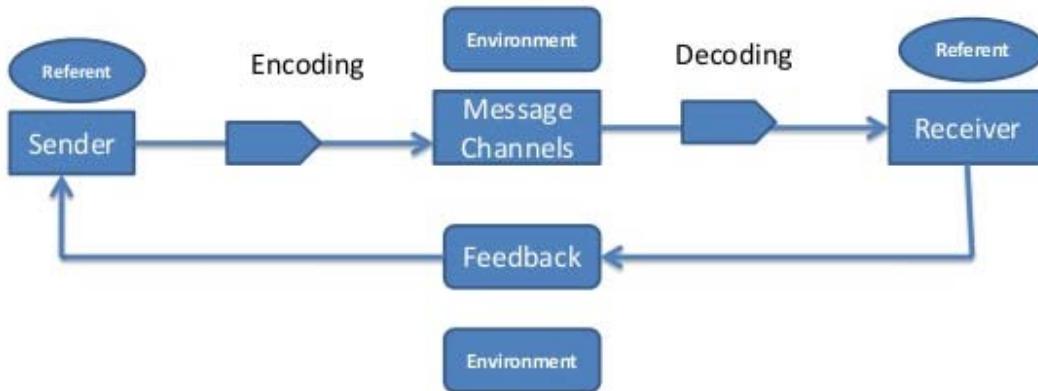
### Specify Character Set ដើម្បីទ្វាក់ document អាចស្អាត់ពុម្ពអក្សរជាខ្លែតបាន

ជា default Web servers និង Web browsers ប្រើប្រាស់ ISO-8859-1 (Latin1) encoding ដើម្បី process នូវ Web pages។ ខាងក្រោមគឺយើងប្រើ UTF-8 encoding

```
<!DOCTYPE html>
<html>
  <head>
    <title>Meta Tags Example</title>
    <meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
    <meta name = "description" content = "Learning about Meta Tags." />
    <meta name = "author" content = "Mahnaz Mohtashim" />
    <meta http-equiv = "Content-Type" content = "text/html; charset = UTF-8" />
  </head>
  <body>
    <p>Hello HTML5!</p>
  </body>
</html>
```

#### 1.4. Charset (HTML Encoding)

ដើម្បីទ្វាក់ HTML page បង្ហាញនូវ data ត្រឹមត្រូវ web browsers ត្រូវស្អាត់ពី character set(character encoding) ដែលខ្លួនត្រូវប្រើប្រាស់។



### អីទៅគឺជា Character Encoding?

ASCII was the first character encoding standard (also called character set). ASCII defined 128 different alphanumeric characters that could be used on the internet: numbers (0-9), English letters (A-Z), and some special characters like ! \$ + - ( ) @ < > .

**ANSI** (Windows-1252) was the original Windows character set, with support for 256 different character codes.

**ISO-8859-1** was the default character set for HTML 4. This character set also supported 256 different character codes.

Because ANSI and ISO-8859-1 were so limited, HTML 4 also supported UTF-8.

**UTF-8 (Unicode)** covers almost all of the characters and symbols in the world.

**ចំណាំ៖ The default character encoding for HTML5 is UTF-8.**

### HTML charset Attribute

**សម្រាប់ HTML4**

```
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
```

**សម្រាប់ HTML5**

```
<meta charset="UTF-8">
```

### ភាសាអក្សរអង់គ្លេស Character Sets

Numb	ASCII	ANSI	8859	UTF-8	Description
32					space
33	!	!	!	!	exclamation mark
34	"	"	"	"	quotation mark
35	#	#	#	#	number sign
36	\$	\$	\$	\$	dollar sign
37	%	%	%	%	percent sign
38	&	&	&	&	ampersand
39	'	'	'	'	apostrophe
40	(	(	(	(	left parenthesis
41	)	)	)	)	right parenthesis
42	*	*	*	*	asterisk
43	+	+	+	+	plus sign
44	,	,	,	,	comma
45	-	-	-	-	hyphen-minus
46	.	.	.	.	full stop
47	/	/	/	/	solidus
48	0	0	0	0	digit zero
49	1	1	1	1	digit one
50	2	2	2	2	digit two
51	3	3	3	3	digit three
52	4	4	4	4	digit four
53	5	5	5	5	digit five
54	6	6	6	6	digit six
55	7	7	7	7	digit seven
56	8	8	8	8	digit eight
57	9	9	9	9	digit nine
58	:	:	:	:	colon
59	;	;	;	;	semicolon
60	<	<	<	<	less-than sign

<b>61</b>	=	=	=	=	equals sign
<b>62</b>	>	>	>	>	greater-than sign
<b>63</b>	?	?	?	?	question mark
<b>64</b>	@	@	@	@	commercial at
<b>65</b>	A	A	A	A	Latin capital letter A
<b>66</b>	B	B	B	B	Latin capital letter B
<b>67</b>	C	C	C	C	Latin capital letter C
<b>68</b>	D	D	D	D	Latin capital letter D
<b>69</b>	E	E	E	E	Latin capital letter E
<b>70</b>	F	F	F	F	Latin capital letter F
<b>71</b>	G	G	G	G	Latin capital letter G
<b>72</b>	H	H	H	H	Latin capital letter H
<b>73</b>	I	I	I	I	Latin capital letter I
<b>74</b>	J	J	J	J	Latin capital letter J
<b>75</b>	K	K	K	K	Latin capital letter K
<b>76</b>	L	L	L	L	Latin capital letter L
<b>77</b>	M	M	M	M	Latin capital letter M
<b>78</b>	N	N	N	N	Latin capital letter N
<b>79</b>	O	O	O	O	Latin capital letter O
<b>80</b>	P	P	P	P	Latin capital letter P
<b>81</b>	Q	Q	Q	Q	Latin capital letter Q
<b>82</b>	R	R	R	R	Latin capital letter R
<b>83</b>	S	S	S	S	Latin capital letter S
<b>84</b>	T	T	T	T	Latin capital letter T
<b>85</b>	U	U	U	U	Latin capital letter U
<b>86</b>	V	V	V	V	Latin capital letter V
<b>87</b>	W	W	W	W	Latin capital letter W
<b>88</b>	X	X	X	X	Latin capital letter X
<b>89</b>	Y	Y	Y	Y	Latin capital letter Y
<b>90</b>	Z	Z	Z	Z	Latin capital letter Z
<b>91</b>	[	[	[	[	left square bracket
<b>92</b>	\	\	\	\	reverse solidus
<b>93</b>	]	]	]	]	right square bracket
<b>94</b>	^	^	^	^	circumflex accent
<b>95</b>	-	-	-	-	low line
<b>96</b>	`	`	`	`	grave accent
<b>97</b>	a	a	a	a	Latin small letter a
<b>98</b>	b	b	b	b	Latin small letter b
<b>99</b>	c	c	c	c	Latin small letter c
<b>100</b>	d	d	d	d	Latin small letter d
<b>101</b>	e	e	e	e	Latin small letter e
<b>102</b>	f	f	f	f	Latin small letter f
<b>103</b>	g	g	g	g	Latin small letter g
<b>104</b>	h	h	h	h	Latin small letter h
<b>105</b>	i	i	i	i	Latin small letter i
<b>106</b>	j	j	j	j	Latin small letter j
<b>107</b>	k	k	k	k	Latin small letter k
<b>108</b>	l	l	l	l	Latin small letter l
<b>109</b>	m	m	m	m	Latin small letter m
<b>110</b>	n	n	n	n	Latin small letter n
<b>111</b>	o	o	o	o	Latin small letter o

<b>112</b>	p	p	p	p	Latin small letter p
<b>113</b>	q	q	q	q	Latin small letter q
<b>114</b>	r	r	r	r	Latin small letter r
<b>115</b>	s	s	s	s	Latin small letter s
<b>116</b>	t	t	t	t	Latin small letter t
<b>117</b>	u	u	u	u	Latin small letter u
<b>118</b>	v	v	v	v	Latin small letter v
<b>119</b>	w	w	w	w	Latin small letter w
<b>120</b>	x	x	x	x	Latin small letter x
<b>121</b>	y	y	y	y	Latin small letter y
<b>122</b>	z	z	z	z	Latin small letter z
<b>123</b>	{	{	{	{	left curly bracket
<b>124</b>					vertical line
<b>125</b>	}	}	}	}	right curly bracket
<b>126</b>	~	~	~	~	tilde
<b>127</b>	DEL				
<b>128</b>		€			euro sign
<b>129</b>					NOT USED
<b>130</b>	,				single low-9 quotation mark
<b>131</b>	f				Latin small letter f with hook
<b>132</b>	"				double low-9 quotation mark
<b>133</b>	...				horizontal ellipsis
<b>134</b>	†				dagger
<b>135</b>	‡				double dagger
<b>136</b>	^				modifier letter circumflex accent
<b>137</b>	%o				per mille sign
<b>138</b>	Š				Latin capital letter S with caron
<b>139</b>	<				single left-pointing angle quotation mark
<b>140</b>	Œ				Latin capital ligature OE
<b>141</b>					NOT USED
<b>142</b>	Ž				Latin capital letter Z with caron
<b>143</b>					NOT USED
<b>144</b>					NOT USED
<b>145</b>	'				left single quotation mark
<b>146</b>	'				right single quotation mark
<b>147</b>	"				left double quotation mark
<b>148</b>	"				right double quotation mark
<b>149</b>	•				bullet
<b>150</b>	-				en dash
<b>151</b>	—				em dash
<b>152</b>	~				small tilde
<b>153</b>	™				trade mark sign
<b>154</b>	š				Latin small letter s with caron
<b>155</b>	>				single right-pointing angle quotation mark
<b>156</b>	œ				Latin small ligature oe
<b>157</b>					NOT USED
<b>158</b>	ž				Latin small letter z with caron
<b>159</b>	Ÿ				Latin capital letter Y with diaeresis
<b>160</b>					no-break space
<b>161</b>	i	i	i	i	inverted exclamation mark
<b>162</b>	¢	¢	¢	¢	cent sign

163		£	£	£	pound sign
164		¤	¤	¤	currency sign
165		¥	¥	¥	yen sign
166		¦	¦	¦	broken bar
167		§	§	§	section sign
168		„	„	„	diaeresis
169		©	©	©	copyright sign
170		ª	ª	ª	feminine ordinal indicator
171		«	«	«	left-pointing double angle quotation mark
172		¬	¬	¬	not sign
173					soft hyphen
174		®	®	®	registered sign
175		-	-	-	macron
176		°	°	°	degree sign
177		±	±	±	plus-minus sign
178		²	²	²	superscript two
179		³	³	³	superscript three
180		ˊ	ˊ	ˊ	acute accent
181		µ	µ	µ	micro sign
182		¶	¶	¶	pilcrow sign
183		·	·	·	middle dot
184		՚	՚	՚	cedilla
185		́	́	́	superscript one
186		º	º	º	masculine ordinal indicator
187		»	»	»	right-pointing double angle quotation mark
188		¼	¼	¼	vulgar fraction one quarter
189		½	½	½	vulgar fraction one half
190		¾	¾	¾	vulgar fraction three quarters
191		՞	՞	՞	inverted question mark
192		À	À	À	Latin capital letter A with grave
193		Á	Á	Á	Latin capital letter A with acute
194		Â	Â	Â	Latin capital letter A with circumflex
195		Ã	Ã	Ã	Latin capital letter A with tilde
196		Ä	Ä	Ä	Latin capital letter A with diaeresis
197		Å	Å	Å	Latin capital letter A with ring above
198		Æ	Æ	Æ	Latin capital letter AE
199		Ç	Ç	Ç	Latin capital letter C with cedilla
200		È	È	È	Latin capital letter E with grave
201		É	É	É	Latin capital letter E with acute
202		Ê	Ê	Ê	Latin capital letter E with circumflex
203		Ë	Ë	Ë	Latin capital letter E with diaeresis
204		Ì	Ì	Ì	Latin capital letter I with grave
205		Í	Í	Í	Latin capital letter I with acute
206		Î	Î	Î	Latin capital letter I with circumflex
207		Ï	Ï	Ï	Latin capital letter I with diaeresis
208		Đ	Đ	Đ	Latin capital letter Eth
209		Ñ	Ñ	Ñ	Latin capital letter N with tilde
210		Ò	Ò	Ò	Latin capital letter O with grave
211		Ó	Ó	Ó	Latin capital letter O with acute
212		Ô	Ô	Ô	Latin capital letter O with circumflex
213		Õ	Õ	Õ	Latin capital letter O with tilde

214		Ö	Ö	Ö	Latin capital letter O with diaeresis
215		×	×	×	multiplication sign
216		Ø	Ø	Ø	Latin capital letter O with stroke
217		Ù	Ù	Ù	Latin capital letter U with grave
218		Ú	Ú	Ú	Latin capital letter U with acute
219		Û	Û	Û	Latin capital letter U with circumflex
220		Ü	Ü	Ü	Latin capital letter U with diaeresis
221		Ý	Ý	Ý	Latin capital letter Y with acute
222		Þ	Þ	Þ	Latin capital letter Thorn
223		ß	ß	ß	Latin small letter sharp s
224		à	à	à	Latin small letter a with grave
225		á	á	á	Latin small letter a with acute
226		â	â	â	Latin small letter a with circumflex
227		ã	ã	ã	Latin small letter a with tilde
228		ä	ä	ä	Latin small letter a with diaeresis
229		å	å	å	Latin small letter a with ring above
230		æ	æ	æ	Latin small letter ae
231		ç	ç	ç	Latin small letter c with cedilla
232		è	è	è	Latin small letter e with grave
233		é	é	é	Latin small letter e with acute
234		ê	ê	ê	Latin small letter e with circumflex
235		ë	ë	ë	Latin small letter e with diaeresis
236		ì	ì	ì	Latin small letter i with grave
237		í	í	í	Latin small letter i with acute
238		î	î	î	Latin small letter i with circumflex
239		ï	ï	ï	Latin small letter i with diaeresis
240		ð	ð	ð	Latin small letter eth
241		ñ	ñ	ñ	Latin small letter n with tilde
242		ò	ò	ò	Latin small letter o with grave
243		ó	ó	ó	Latin small letter o with acute
244		ô	ô	ô	Latin small letter o with circumflex
245		õ	õ	õ	Latin small letter o with tilde
246		ö	ö	ö	Latin small letter o with diaeresis
247		÷	÷	÷	division sign
248		ø	ø	ø	Latin small letter o with stroke
249		ù	ù	ù	Latin small letter u with grave
250		ú	ú	ú	Latin small letter u with acute
251		û	û	û	Latin small letter u with circumflex
252		ü	ü	ü	Latin small letter u with diaeresis
253		ý	ý	ý	Latin small letter y with acute
254		þ	þ	þ	Latin small letter thorn
255		ÿ	ÿ	ÿ	Latin small letter y with diaeresis

### The ASCII Character Set

ASCII uses the values from 0 to 31 (and 127) for control characters.

ASCII uses the values from 32 to 126 for letters, digits, and symbols.

ASCII does not use the values from 128 to 255.

### The ANSI Character Set (Windows-1252)

ANSI is identical to ASCII for the values from 0 to 127.

ANSI has a proprietary set of characters for the values from 128 to 159.

ANSI is identical to UTF-8 for the values from 160 to 255.

### The ISO-8859-1 Character Set

8859-1 is identical to ASCII for the values from 0 to 127.

8859-1 does not use the values from 128 to 159.

8859-1 is identical to UTF-8 for the values from 160 to 255.

### The UTF-8 Character Set

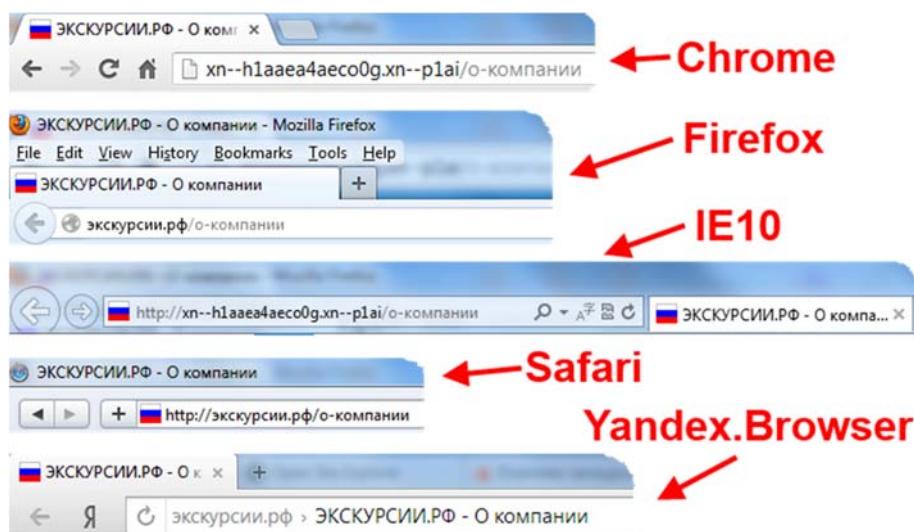
UTF-8 is identical to ASCII for the values from 0 to 127.

UTF-8 does not use the values from 128 to 159.

UTF-8 is identical to both ANSI and 8859-1 for the values from 160 to 255.

UTF-8 continues from the value 256 with more than 10 000 different characters.

## 1.5. Understand URL Encoding



URL = Uniform Resource Locators

URL តើជាពាក្យម្បយទេៗព័ត៌មាននៃយដ្ឋចនីងពាក្យ web address

URL អាចជាបន្ទាំនៃពាក្យ(w3school.com) ឬ IP Address(192.168.100.1)

Web browsers នឹងរួម request pages ទៅ web servers ដោយប្រើប្រាស់ URL

URL គ្រែបានគេប្រើប្រាស់ដើម្បី access ទៅកាន់ document ឬ data ណាមួយនៃ web

រូបមន្ត្រាំ:

**scheme://prefix.domain:port/path/filename**

**scheme** - defines the type of Internet service (most common is http or https)

**prefix** - defines a domain prefix (default for http is www)

**domain** - defines the Internet domain name (like w3schools.com)

**port** - defines the port number at the host (default for http is 80)

**path** - defines a path at the server (If omitted: the root directory of the site)

**filename** - defines the name of a document or resource

→

<https://www.w3schools.com/html/default.asp>

### Common URL Schemes

Scheme	Short for	Used for
<b>http</b>	HyperText Transfer Protocol	Common web pages. Not encrypted
<b>https</b>	Secure HyperText Transfer Protocol	Secure web pages. Encrypted
<b>ftp</b>	File Transfer Protocol	Downloading or uploading files
<b>file</b>		A file on your computer

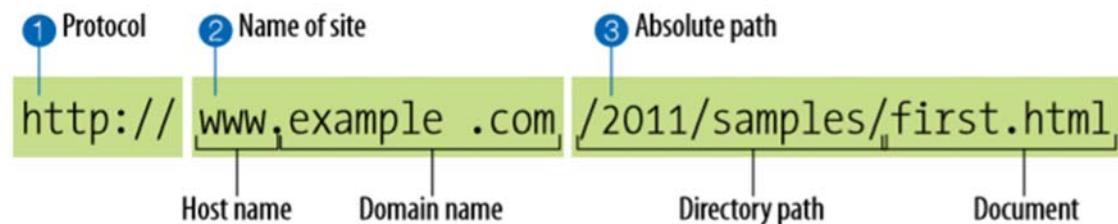
### URL Encoding

URLs can only be sent over the Internet using the ASCII character-set. If a URL contains characters outside the ASCII set, the URL has to be converted.

URL encoding converts non-ASCII characters into a format that can be transmitted over the Internet.

URL encoding replaces non-ASCII characters with a "%" followed by hexadecimal digits.

URLs cannot contain spaces. URL encoding normally replaces a space with a plus (+) sign, or %20.



## 1.6. Paragraphs

The **HTML <p> element** defines a paragraph:

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

<p>This is another paragraph.</p>

ការបង្ហាញរបស់ HTML តើមិនទៀតទាត់ទេ វានឹងបង្រៀនឡើងតាមការផ្តាស់ប្តូរនៃទំបន់ screen ។

ហើយយើងកំចិនអាចបន្ថែមនូវ spaces ឬ lines នៅក្នុង HTML code ដើម្បីធ្វើការផ្តល់បញ្ជី output បាន ដែរ។ Browser នឹង remove នូវ extra spaces និង extra lines ពេលដែល page បានបង្ហាញ៖

```
<p>
This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.
</p>
```

```
<p>
This paragraph
contains      a lot of spaces
in the source      code,
but the      browser
ignores it.
</p>
```

ដើម្បី space បានបង្ហាញត្រូវបង្រើ &nbsp; និងចង់ចុះបន្ទាត់ត្រូវបង្រើ line break <br/>

<p>This is<br>a paragraph<br>with line breaks.</p>

### ការបង្រើប្រាស់ HTML <pre> Element

HTML <pre> element មាននេះយើង preformatted text.

Text ដែលនូវក្នុង <pre> element គឺបង្ហាញក្នុងទំនួន fixed-width និង font ដើម្បី (usually Courier) និង preserves ទាំង spaces និង line breaks៖

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

<p>The pre tag preserves both spaces and line breaks:</p>

<pre>
My Bonnie lies over the ocean.
My Bonnie lies over the sea.
My Bonnie lies over the ocean.
Oh, bring back my Bonnie to me.
</pre>

</body>
</html>
```

The pre tag preserves both spaces and line breaks:

```
My Bonnie lies over the ocean.
My Bonnie lies over the sea.
My Bonnie lies over the ocean.
Oh, bring back my Bonnie to me.
```

## 1.7. HTML Formatting

### Text Formatting

**This text is bold**

*This text is italic*

This is subscript and superscript

HTML បានបង្កើតនៅវា special elements សម្រាប់ define text ជាមួយនឹង special meaning ដូចជា `<b>` និង `<i>` សម្រាប់ formatting output ទៅ អក្សរ **bold** ឬ *italic*។ និងមានខាងក្រោមមួយចំនួនឡើង

Tag	Description
<code>&lt;b&gt;</code>	Defines bold text
<code>&lt;em&gt;</code>	Defines emphasized text
<code>&lt;i&gt;</code>	Defines italic text
<code>&lt;small&gt;</code>	Defines smaller text
<code>&lt;strong&gt;</code>	Defines important text
<code>&lt;sub&gt;</code>	Defines subscripted text
<code>&lt;sup&gt;</code>	Defines superscripted text
<code>&lt;ins&gt;</code>	Defines inserted text
<code>&lt;del&gt;</code>	Defines deleted text
<code>&lt;mark&gt;</code>	Defines marked/highlighted text

## 1.8. HTML Entity and Symbol

Entity : អក្សរមួយចំនួនដែលជាតិចិតន HTML

`&entity_name;`

OR

`&#entity_number;`

ឧទាហរណ៍

ដើម្បីបង្ហាញសញ្ញា < គេហូរី &lt; និង &gt;

non-breaking space ឬឯងប្រើ `&ampnbsp`

បើសិនជាមួកប្រើ space 10 នៅ system និង remove 9 space ចេញដោយស្ថើយប្រភព។

Result	Description	Entity Name	Entity Number
	non-breaking space	<code>&amp;ampnbsp</code>	<code>&amp;#160;</code>

<	less than	&lt;	&#60;
>	greater than	&gt;	&#62;
&	ampersand	&amp;	&#38;
"	double quotation mark	&quot;	&#34;
'	single quotation mark (apostrophe)	&apos;	&#39;
¢	cent	&cent;	&#162;
£	pound	&pound;	&#163;
¥	yen	&yen;	&#165;
€	euro	&euro;	&#8364;
©	copyright	&copy;	&#169;
®	registered trademark	&reg;	&#174;

Mark	Character	Construct	Result
`	a	a&#768;	à
'	a	a&#769;	á
^	a	a&#770;	â
~	a	a&#771;	ã
`	O	O&#768;	Ò
'	O	O&#769;	Ó
^	O	O&#770;	Ô
~	O	O&#771;	Õ

**Symbol :** វិប្បលដៃអត្ថលេខា entity ដើម្បី តែលទួលិបស់វាតិជាតា symbol។ ប្រសិនបើគ្មាន entity name ឡើងអាចប្រើ entity number ជំនួយបាន (ជាតុ decimal, ឬ hexadecimal)។

<p>I will display &euro;</p>

<p>I will display &#8364;</p>

<p>I will display &#x20AC;</p>



I will display €

I will display £

I will display ¢

**Mathematical Symbols ដែល Supported ដោយ HTML**

Char	Number	Entity	Description
∀	&#8704;	&forall;	FOR ALL
∂	&#8706;	&part;	PARTIAL DIFFERENTIAL
Ǝ	&#8707;	&exist;	THERE EXISTS
∅	&#8709;	&empty;	EMPTY SETS
∇	&#8711;	&nabla;	NABLA
∈	&#8712;	&isin;	ELEMENT OF
∉	&#8713;	&notin;	NOT AN ELEMENT OF
∋	&#8715;	&ni;	CONTAINS AS MEMBER
∏	&#8719;	&prod;	N-ARY PRODUCT
∑	&#8721;	&sum;	N-ARY SUMMATION

## Some Greek Letters Supported by HTML

Char	Number	Entity	Description
Α	&#913;	&Alpha;	GREEK CAPITAL LETTER ALPHA
Β	&#914;	&Beta;	GREEK CAPITAL LETTER BETA
Γ	&#915;	&Gamma;	GREEK CAPITAL LETTER GAMMA
Δ	&#916;	&Delta;	GREEK CAPITAL LETTER DELTA
Ε	&#917;	&Epsilon;	GREEK CAPITAL LETTER EPSILON
Ζ	&#918;	&Zeta;	GREEK CAPITAL LETTER ZETA

## Some Other Entities Supported by HTML

Char	Number	Entity	Description
©	&#169;	&copy;	COPYRIGHT SIGN
®	&#174;	&reg;	REGISTERED SIGN
€	&#8364;	&euro;	EURO SIGN
™	&#8482;	&trade;	TRADEMARK
←	&#8592;	&larr;	LEFTWARDS ARROW
↑	&#8593;	&uarr;	UPWARDS ARROW
→	&#8594;	&rarr;	RIGHTWARDS ARROW
↓	&#8595;	&darr;	DOWNWARDS ARROW
♠	&#9824;	&spades;	BLACK SPADE SUIT
♣	&#9827;	&clubs;	BLACK CLUB SUIT
♥	&#9829;	&hearts;	BLACK HEART SUIT
♦	&#9830;	&diams;	BLACK DIAMOND SUIT

**1.9. Ordered and Unordered List****An Unordered List:**

- Item
- Item
- Item
- Item

**An Ordered List:**

1. First item
2. Second item
3. Third item
4. Fourth item

**Unordered HTML List**

Unordered list ផ្នែមដោយ `<ul>` tag ។ កណ្តាល list item នឹងយកចាប់ផ្នែមជាមួយនឹង `<li>` tag ។

ជាតិ default ត្រូវ list items នឹងបង្កាញជាមួយ bullets (small black circles)៖

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

CSS list-style-type property ខាងក្រោមអាចផ្តល់សំណុះ item marker ខាងលើបាន

Value	Description
<b>disc</b>	Sets the list item marker to a bullet (default)
<b>circle</b>	Sets the list item marker to a circle
<b>square</b>	Sets the list item marker to a square
<b>none</b>	The list items will not be marked

```
<ul style="list-style-type:disc">
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ul>
```

### Ordered HTML List

Ordered list ចាប់ផ្តើមដោយ **<ol>** tag ។ ត្រូវ list item នឹមួយទាំងអស់ត្រូវបាន marked ដោយ numbers ៖

ជាតិ default ត្រូវ list items ត្រូវបាន marked ដោយ numbers ៖

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

យើងកំអាចផ្តល់សំណុះប្រភេទ list item marker ខាងលើបានដោយប្រើប្រាស់ type attribute ខាងក្រោម

Type	Description
<b>type="1"</b>	The list items will be numbered with numbers (default)
<b>type="A"</b>	The list items will be numbered with uppercase letters
<b>type="a"</b>	The list items will be numbered with lowercase letters
<b>type="I"</b>	The list items will be numbered with uppercase roman numbers
<b>type="i"</b>	The list items will be numbered with lowercase roman numbers

```
<ol type="1">
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ol>
```

### HTML Description Lists

```
<dl>
    <dt>Coffee</dt>
    <dd>- black hot drink</dd>
    <dt>Milk</dt>
    <dd>- white cold drink</dd>
</dl>

<!DOCTYPE html>
<html>
<body>

<h2>A Description List</h2>

<dl>
    <dt>Coffee</dt>
    <dd>- black hot drink</dd>
    <dt>Milk</dt>
    <dd>- white cold drink</dd>
</dl>

</body>
</html>
```

## A Description List

Coffee  
- black hot drink  
Milk  
- white cold drink

### Nested HTML Lists

List ក្នុងបញ្ជី nested list (lists inside lists):

```
<ul>
    <li>Coffee</li>
    <li>Tea
        <ul>
            <li>Black tea</li>
            <li>Green tea</li>
        </ul>
    </li>
    <li>Milk</li>
</ul>
```

### Horizontal Lists

HTML lists អាចត្រូវបានគេរំពោលក្នុង style ដោយប្រើវិធីសាស្ត្រផ្សេងៗគ្នាដាមួយនឹង CSS។

One popular way is to style a list horizontally, **to create a menu**:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
ul {
```

```
    list-style-type: none;
```

```
    margin: 0;
```

```
    padding: 0;
```

```
    overflow: hidden;
```

```
    background-color: #333333;
```

```
}
```

```
li {
```

```
    float: left;
```

```
}
```

```
li a {
```

```
    display: block;
```

```
    color: white;
```

```
    text-align: center;
```

```
    padding: 16px;
```

```
    text-decoration: none;
```

```
}
```

```
li a:hover {
```

```
    background-color: #111111;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

---

```
<ul>
```

```

<li><a href="#home">Home</a></li>
<li><a href="#news">News</a></li>
<li><a href="#contact">Contact</a></li>
<li><a href="#about">About</a></li>
</ul>

</body>
</html>

```

Home News Contact About

### 1.10. Style Attribute

ដើម្បីផ្តល់បន្ថែមទំនាក់ទំនងទៅ HTML element មួយអ្នកអាជប្រើជាមួយ style attribute។  
ខាងក្រោមជាបន្ថែមនេះ៖

<tagname style="property:value;">

Property គឺជា CSS property ហើយ value គឺជា CSS value.

#### HTML Background Color

```

<body style="background-color:powderblue;">
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>

```

#### HTML Text Color

```

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

```

#### HTML Fonts

Font-family property ជាអ្នកកំណត់នូវរបៀបទំនាក់ទំនង font ទៅលើ HTML element:

```

<h1 style="font-family:verdana;">This is a heading</h1>
<p style="font-family:courier;">This is a paragraph.</p>
<p style="font-family: 'Times New Roman', Times, serif;">This is a paragraph.</p>
<p style="font-family: Arial, Helvetica, sans-serif;">This is a paragraph.</p>

```

#### HTML Text Size

Font-size property ជាអ្នកកំណត់ text size ទៅលើ HTML element:

<h1 style="font-size:300%;">This is a heading</h1>

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

**Syntax :**

font-size:medium|xx-small|x-small|small|large|x-large|xx-large|smaller|larger|length|initial|inherit;

**Property Values**

Value	Description
medium	Sets the font-size to a medium size. This is default
xx-small	Sets the font-size to an xx-small size
x-small	Sets the font-size to an extra small size
small	Sets the font-size to a small size
large	Sets the font-size to a large size
x-large	Sets the font-size to an extra large size
xx-large	Sets the font-size to an xx-large size
smaller	Sets the font-size to a smaller size than the parent element
larger	Sets the font-size to a larger size than the parent element
<i>length</i>	Sets the font-size to a fixed size in px, cm, etc. <a href="#">Read about length units</a>

% Sets the font-size to a percent of the parent element's font size

initial Sets this property to its default value. [Read about INITIAL](#)

inherit Inherits this property from its parent element. [Read about INHERIT](#)

### CSS Property:

font-size:  
 xx-small  
 x-small  
 small  
 medium  
 large  
 x-large  
 xx-large  
 smaller  
 larger  
 10px  
 20px  
 50%  
 150%  
 1em  
 0.5em  
 initial

### Result:

#### Play with different font sizes!

Try different font sizes by clicking the radio buttons

### CSS Code:

```
div {  
    font-size:10px;  
}
```

## HTML Text Alignment

**Text-align** property សម្រាប់កំណត់ horizontal text alignment ទៅលើ HTML element:

<h1 style="text-align:center;">Centered Heading</h1>

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

### Property Values

#### Value

#### Description

left Aligns the text to the left

right	Aligns the text to the right
center	Centers the text
justify	Stretches the lines so that each line has equal width (like in newspapers and magazines)
initial	Sets this property to its default value. <a href="#">Read about INITIAL</a>
inherit	Inherits this property from its parent element. <a href="#">Read about INHERIT</a>

លំហាត់៖

## TEXT FORMATTING

This text is styled with some of the text formatting properties. The heading uses the text-align, text-transform, and color properties. The paragraph is indented, aligned, and the space between characters is specified. The underline is removed from this colored "Try it Yourself" link.

### 1.11. Web Link and Mail Link <a>...</a>

HTML links គឺជាបញ្ជីក hyperlinks។

អ្នកអាច click នៅលើ link ណាមួយនោះវានឹងលោកឡើកទីតាំង document មួយដៃនៅទៀត។

នៅពេលដែលអ្នកយក mouse ទៅចិត្តរបៀប link នៅ៖ mouse arrow ធ្វើសំបុរាណធម្មជាតិ little hand។

[Text Link](#)    [Text Link](#)

[Link Button](#)

[Link Button](#)

ចំណាំ៖ link អាចជាពាណ, image ឬជាអត្ថបទ HTML Document។

របៀបខ្លះ៖

<[a href="url">link text</a>](url)

→

<[a href="https://www.w3schools.com/html/">Visit our HTML tutorial</a>](https://www.w3schools.com/html/)

**href attribute** ជាអ្នកកំណត់ទិន្នន័យ (address ឧប https://www.w3schools.com/html/) ដែលបង្កើរ link ទៅកាន់។

**Link text**(Visit our HTML tutorial) វិគ្រាន់ពេតជាដឹកម្មួយដែលអ្នកមើលយើងតែប៉ុន្មាន។

### **ផំពើ Local Links**

Local link (link to the same web site) ត្រូវបានកំណត់ដោយ relative URL (without http://www....)។

```
<a href="html_images.asp">HTML Images</a>
```

### **ផំពើ HTML Link Colors**

Link សម្រាប់សិន្ណគ្រប់ browsers ទាំងអស់គឺមានលក្ខណៈដូចខាងក្រោម៖

- An **unvisited link** is underlined and blue
- A **visited link** is underlined and purple
- An **active link** is underlined and red

### **Styling Links**

គីជី CSS property រូមមាន color, font-family, background, etc.

Style link សំខាន់ៗ ដោយក្រោមគឺ៖

- a:link - a normal, unvisited link
- a:visited - a link the user has visited
- a:hover - a link when the user mouses over it
- a:active - a link the moment it is clicked

### **ឧបករណ៍ទី១៖**

```
<!DOCTYPE html>
<html>
<head>
<style>
/* unvisited link */
a:link {           This is a link
    color: red;   Note: a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.
}                   Note: a:active MUST come after a:hover in the CSS definition in order to be effective.

/* visited link */
```

```
a:visited {  
    color: green;  
}  
  
/* mouse over link */  
  
a:hover {  
    color: hotpink;  
}  
  
/* selected link */  
  
a:active {  
    color: blue;  
}  
</style>  
</head>  
<body>  
  
<p><b><a href="default.asp" target="_blank">This is a link</a></b></p>  
<p><b>Note:</b> a:hover MUST come after a:link and a:visited in the CSS definition in  
order to be effective.</p>  
<p><b>Note:</b> a:active MUST come after a:hover in the CSS definition in order to be  
effective.</p>  
  
</body>  
</html>
```

### ឧទាហរណ៍លើទី៣៖

```
<!DOCTYPE html>  
<html>  
<head>  
<style>  
a:link {  
    color: green;  
    background-color: transparent;
```

```
text-decoration: none;  
}  
  
a:visited {  
    color: pink;  
    background-color: transparent;  
    text-decoration: none;  
}  
  
a:hover {  
    color: red;  
    background-color: transparent;  
    text-decoration: underline;  
}  
  
a:active {  
    color: yellow;  
    background-color: transparent;  
    text-decoration: underline;  
}  
  
</style>  
</head>  
<body>  
<p>You can change the default colors of links</p>  
<a href="html_images.asp" target="_blank">HTML Images</a>  
</body>  
</html>
```

### **HTML Links - The target Attribute**

Target attribute ប្រើសម្រាប់បញ្ជាក់កន្លែងដែលត្រូវបើក document។

- \_blank - Opens the linked document in a new window or tab
- \_self - Opens the linked document in the same window/tab as it was clicked (this is default)
- \_parent - Opens the linked document in the parent frame
- \_top - Opens the linked document in the full body of the window
- framename - Opens the linked document in a named frame

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

```
<a href="https://www.w3schools.com/html/" target="_blank">
Visit our HTML tutorial!</a>
<p>If you set the target attribute to "_blank", the link will open in a new browser window or tab.</p>
</body>
</html>
```

### HTML Links - ការបង្កើត Image ជា Link

```
<a href="default.asp">

</a>
```

### HTML Links - ការបង្កើត Bookmark

HTML bookmarks គឺជាពាណបង្កើតទេរីនដើម្បីអនុញ្ញាត readers អាច jump ទៅកាន់ specific parts ណាមួយលើ Web page។

- Bookmarks can be useful if your webpage is very long.
- To make a bookmark, you must first create the bookmark, and then add a link to it.
- When the link is clicked, the page will scroll to the location with the bookmark.

ជាដំបូងបង្កើត bookmark ដោយប្រើ id attribute

```
<h2 id="C4">Chapter 4</h2>
```

បន្ទាប់មកប្រើ link ដើម្បីទូទាត់ទៅកាន់ bookmark

```
<a href="#C4">Jump to Chapter 4</a>
```

Or, add a link to the bookmark ("Jump to Chapter 4"), from another page:

```
<a href="html_demo.html#C4">Jump to Chapter 4</a>
```

### របៀបប្រើប្រាស់ External Paths

External Paths អាចសំដែងទៅលើ Full URL ឬ path relative ដែលមានទំនាក់ទំនងទៅកាន់ current web page។

ប្រើ Full URL

```
<a href="https://www.w3schools.com/html/default.asp">HTML tutorial</a>
```

Path ដែលនៅក្នុង folder html

```
<a href="/html/default.asp">HTML tutorial</a>
```

Link ទៅកាន់ page ដែលកំណើនស្ថិតនៅទីតាំងជាមួយ current page

```
<a href="default.asp">HTML tutorial</a>
```

**Email Link**

```
<a href = "mailto: abc@example.com">Send Email</a>
Or by setting default
<a href = "mailto:abc@example.com?subject = Feedback&body = Message">
Send Feedback
</a>
```

**1.12. HTML Font Element**

<font> tag ត្រូវបានគេប្រើដើម្បីបង្កើចនៃមន្ត្រា style, color, size ទៅទិញ text ក្នុង website របស់អ្នក។

<basefont> tag ត្រូវបានគេប្រើដើម្បីកំណត់នូវលក្ខណៈ default នៃ style, face, color, size ដូចត្រូវទៅលើ website របស់អ្នក។

Attribute បំផាន់ទៅរបស់ <font> និង <basefont> មានបីគី size, color and face។

\*\*\* តាមពិតទេពេលអនាគត់ <font> និង <basefont> នឹងត្រូវបានគេដកចេញពី HTML ដូចខាងក្រោម ដើម្បីបង្កើចនៃការសម្រាប់អ្នកប្រើប្រាស់។

**កំណត់ Font Size**

**size attribute.** Range from 1(smallest) to 7(largest). The default size of a font is 3.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Setting Font Size</title>
  </head>
  <body>
    <font size = "1">Font size = "1"</font><br />
    <font size = "2">Font size = "2"</font><br />
    <font size = "3">Font size = "3"</font><br />
    <font size = "4">Font size = "4"</font><br />
    <font size = "5">Font size = "5"</font><br />
    <font size = "6">Font size = "6"</font><br />
    <font size = "7">Font size = "7"</font>
  </body>
</html>
```

**កំណត់ Relative Font Size**

មានន័យថាយក current font size +  $\frac{1}{n}$  - n size

```
<!DOCTYPE html>
<html>
  <head>
    <title>Relative Font Size</title>
  </head>
  <body>
    <font size = "-1">Font size = "-1"</font><br />
    <font size = "+1">Font size = "+1"</font><br />
    <font size = "+2">Font size = "+2"</font><br />
    <font size = "+3">Font size = "+3"</font><br />
    <font size = "+4">Font size = "+4"</font>
  </body>
</html>
```

### **កំណត់ Font Face**

FACE attribute ត្រូវបានគេប្រើដើម្បីធ្វើការផ្តល់ font name។ បើ font name មិនមានក្នុង computer នោះវានឹងចាប់យក font name តាម default របស់computer។

```
<!DOCTYPE html>
<html>
  <head>
    <title>Font Face</title>
  </head>
  <body>
    <font face = "Times New Roman" size = "5">Times New Roman</font><br />
    <font face = "Verdana" size = "5">Verdana</font><br />
    <font face = "Comic sans MS" size = "5">Comic Sans MS</font><br />
    <font face = "WildWest" size = "5">WildWest</font><br />
    <font face = "Bedrock" size = "5">Bedrock</font><br />
  </body>
</html>
```

### **កំណត់ Alternative Font Face**

```
<font face = "arial,helvetica">
<font face = "Lucida Calligraphy,Comic Sans MS,Lucida Console">
```

Browser នឹងធ្វើការបង្ហាញ font តាម font ណាដែលមានហើយនៅមុខគោ។

### **កំណត់ Alternative Font Color**

យើងអាចកំណត់ color ដោយប្រើប្រាស់ color attribute ឬនូវទំន់ជា **color name or hexadecimal code** ។

```
<!DOCTYPE html>
<html>
  <head>
    <title>Setting Font Color</title>
  </head>
  <body>
    <font color = "#FF00FF">This text is in pink</font><br />
    <font color = "red">This text is red</font>
  </body>
</html>
```

### **ការប្រើប្រាស់ <basefont> tag**

<basefont> tag ក៏អាចកំណត់បាននូវ color, size និង face attributes បានដួងដោយក៏ support នឹង relative font setting ដោយធ្វើការបង្កើតទំហំ +1 ឬបន្ថយទំហំ -2 បានដួងដោរ។

```
<!DOCTYPE html>
<html>
  <head>
    <title>Setting Basefont Color</title>
  </head>
  <body>
    <basefont face = "arial, verdana, sans-serif" size = "2" color = "#ff0000">
    <p>This is the page's default font.</p>
    <h2>Example of the &lt;basefont&gt; Element</h2>
    <p><font size = "+2" color = "darkgray">
      This is darkgray text with two sizes larger
    </font>
    </p>
    <p><font face = "courier" size = "-1" color = "#000000">
      It is a courier font, a size smaller and black in color.
    </font>
  </body>
</html>
```

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

### 1.13. HTML Quotation

ជាពួក HTML element ដែរប្រើសម្រាប់ជាក់ content ជាពួក។

Tag	Description
<a href="#"><u>&lt;abbr&gt;</u></a>	Defines an abbreviation or acronym
<a href="#"><u>&lt;address&gt;</u></a>	Defines contact information for the author/owner of a document
<a href="#"><u>&lt;bdo&gt;</u></a>	Defines the text direction
<a href="#"><u>&lt;blockquote&gt;</u></a>	Defines a section that is quoted from another source
<a href="#"><u>&lt;cite&gt;</u></a>	Defines the title of a work
<a href="#"><u>&lt;q&gt;</u></a>	Defines a short inline quotation

#### HTML <q> for Short Quotations

<p>WWF's goal is to: <q>Build a future where people live in harmony with nature.</q></p>

→

WWF's goal is to: "Build a future where people live in harmony with nature."

#### HTML <blockquote> for Quotations

<p>Here is a quote from WWF's website:</p>

<blockquote cite="http://www.worldwildlife.org/who/index.html">

For 50 years, WWF has been protecting the future of nature.

The world's leading conservation organization,

WWF works in 100 countries and is supported by  
1.2 million members in the United States and  
close to 5 million globally.  
</blockquote>

Here is a quote from WWF's website:

For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.

### HTML <abbr> for Abbreviations(អក្សរកាត់)

<p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>

### HTML <address> for Contact Information

HTML <address> element ត្រូវបានបង្កើតឡើងដើម្បីផ្តល់ព័ត៌មាន contact information (author/owner) នៃទំនើស document ឬ article។

The <address> element is usually displayed in italic. Most browsers will add a line break before and after the element.

```
<address>
Written by John Doe.<br>
Visit us at:<br>
Example.com<br>
Box 564, Disneyland<br>
USA
</address>
```

### HTML <cite> for Work Title

HTML <cite> element ត្រូវបានបង្កើតជា title នៃការងារអ្នកម្រួយ។

Browsers ដាក់ខ្លួចបង្ហាញ <cite> elements ទៅបង្កើតជា italic.

<p><cite>The Scream</cite> by Edvard Munch. Painted in 1893.</p>

### HTML <bdo> for Bi-Directional Override

HTML <bdo> element កំណត់ប្រភេទជាទុកដាក់ bi-directional override.

<bdo> element ត្រូវបានគេបង្កើតឡើងoverride ទៅបង្កើតជាទុកដាក់ current text direction:

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

```
<body>
```

<p>If your browser supports bi-directional override (bdo), the next line will be written from right to left (rtl):</p>

```
<bdo dir="rtl">This line will be written from right to left</bdo>
```

```
</body>
```

```
</html>
```

## 1.14. HTML Color

HTML colors អាជីវប្រើប្រាស់ជាសម្រាក color names, ឬជាកម្មសែន RGB, HEX, HSL, RGBA, HSLA។

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



## Color Values

In HTML, colors can also be specified using RGB values, HEX values, HSL values, RGBA values, and HSLA values:

Same as color name "Tomato":

```
rgb(255, 99, 71)
```

```
#ff6347
```

```
hsl(9, 100%, 64%)
```

Same as color name "Tomato", but 50% transparent:

```
rgba(255, 99, 71, 0.5)
```

```
hsla(9, 100%, 64%, 0.5)
```

HTML អាជីវប្រើប្រាស់ support ចាំ 140 color names

[https://www.w3schools.com/colors/colors\\_names.asp](https://www.w3schools.com/colors/colors_names.asp)

Color Name	HEX	Color	Shades	Mix
AliceBlue	#F0F8FF		<a href="#">Shades</a>	<a href="#">Mix</a>
AntiqueWhite	#FAEBD7		<a href="#">Shades</a>	<a href="#">Mix</a>
Aqua	#00FFFF		<a href="#">Shades</a>	<a href="#">Mix</a>
Aquamarine	#7FFFDD		<a href="#">Shades</a>	<a href="#">Mix</a>
Azure	#F0FFFF		<a href="#">Shades</a>	<a href="#">Mix</a>
Beige	#F5F5DC		<a href="#">Shades</a>	<a href="#">Mix</a>
Bisque	#FFE4C4		<a href="#">Shades</a>	<a href="#">Mix</a>
Black	#000000		<a href="#">Shades</a>	<a href="#">Mix</a>
BlanchedAlmond	#FFEBCD		<a href="#">Shades</a>	<a href="#">Mix</a>
Blue	#0000FF		<a href="#">Shades</a>	<a href="#">Mix</a>
BlueViolet	#8A2BE2		<a href="#">Shades</a>	<a href="#">Mix</a>
Brown	#A52A2A		<a href="#">Shades</a>	<a href="#">Mix</a>
BurlyWood	#DEB887		<a href="#">Shades</a>	<a href="#">Mix</a>

### Color By RGB Value

rgb(red, green, blue)

Parameter នីមួយៗ (red, green, and blue) ត្រូវបានកំណត់កម្រិតនៃពណ៌ចន្លោះពី 0 ទៅ 255។  
ឧប់ពណ៌ស (0,0,0) ពណ៌ខ្វៅ (255,255,255)

### Color By HEX Value

ក្នុង HTML color អាចប្រើប្រាស់ជាដែល hexadecimal ក្នុងទំនួរដឹងជាងក្រោម៖

#rrggbb

ដើម្បី rr (red), gg (green) និង bb (blue) ទាំងអស់នេះជាដែល hexadecimal ចិត្តនៅចន្លោះពី 00 ទៅ ff (ដូចទៅនឹងតម្លៃ decimal 0-255)។

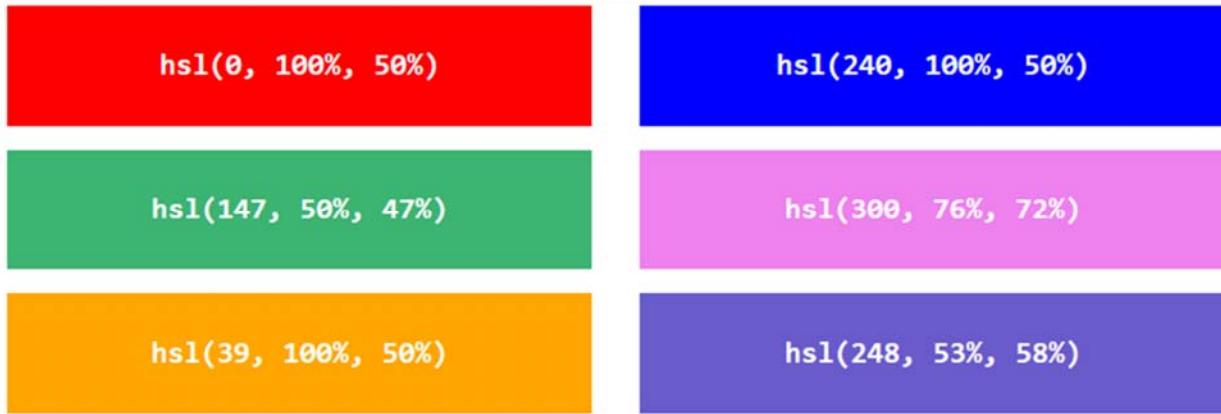
ឧទាហរណ៍ #ff0000 តើបានជាទណី red, ពីរបោះ block red ត្រូវបានជាក់ទៅដើលតម្លៃខ្ពស់បំផុត (ff) ហើយ block ធ្វើនៅក្រោចជាក់ទាបបំផុត (00)។

### Color By HSL Value

ក្នុង HTML color អាចប្រើប្រាស់ក្នុងទំនួរដឹងជាដែលនៃ hue, saturation, និង lightness (HSL) ។

**hsl(hue, saturation, lightness)**

- **Hue** is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue.
- **Saturation** is a percentage value, 0% means a shade of gray, and 100% is the full color.
- **Lightness** is also a percentage, 0% is black, 50% is neither light or dark, 100% is white



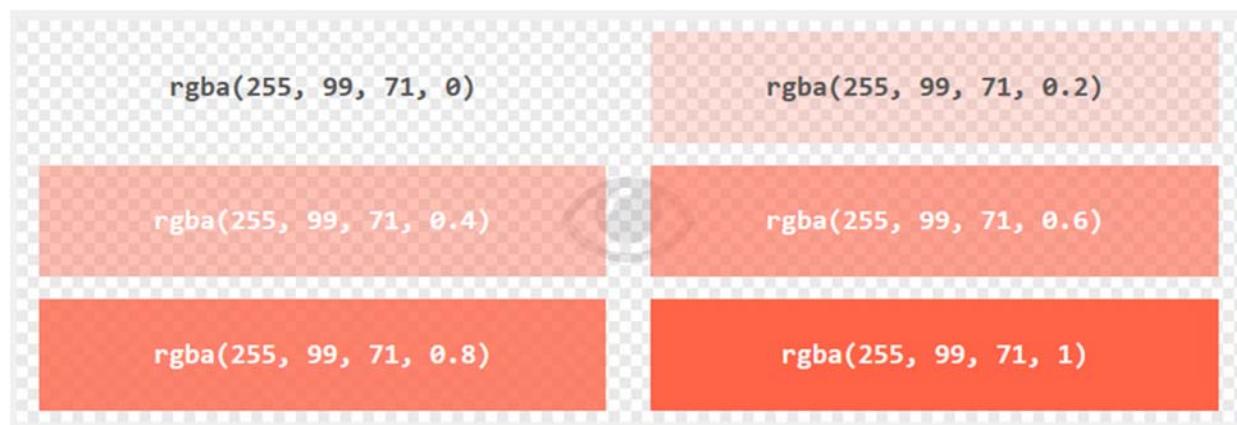
### Color By RGBA Value

RGBA color ជាព័ត៌ម្ធន៍ដែល extension បន្ថែមពីលើកព័ម្ធន៍ RGB color រួមជាមួយនឹងព័ម្ធន៍ alpha ដែល alpha ជាតុលាការនៃ color។

RGBA color ស្ថិតក្នុងទម្រង់ដូចខាងក្រោម៖

**rgba(red, green, blue, alpha)**

ព័ម្ធន៍ alpha parameter គឺជាលេខតម្លៃវិញ ពី 0.0 (fully transparent) ទៅ 1.0 (not transparent)



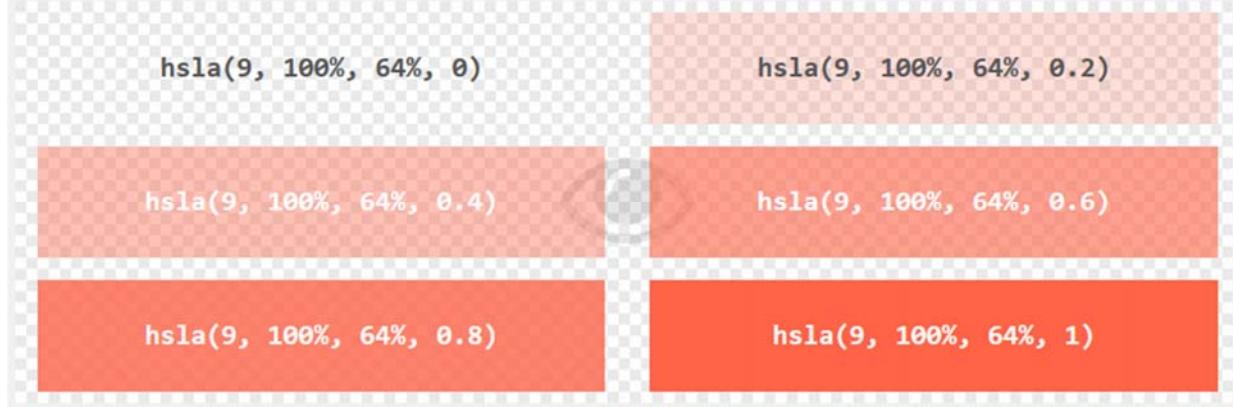
### Color By HSLA Value

HSLA color គឺជាព័ត៌ម្ធន៍ដែល extension ពីលើ HSL color ដោយបុកបញ្ចប់ជាមួយនឹង alpha color។

HSLA color ស្ថិតក្នុងទម្រង់ដូចខាងក្រោម៖

**hsla(hue, saturation, lightness, alpha)**

ព័ម្ធន៍របស់ alpha គឺនៅចំនោះពី 0.0 (fully transparent) ទៅ 1.0 (not transparent)៖



### របៀបជាត់ Background Color នៃ HTML Element

Hello World

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

### របៀបណ្តាគ់ Color

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

### របៀប RGB value

```
<h1 style="background-color:rgb(255, 99, 71);">...</h1>
```

### របៀប HEX value

```
<h1 style="background-color:#ff6347;">...</h1>
```

### របៀប HSL value

```
<h1 style="background-color:hsl(9, 100%, 64%);">...</h1>
```

### របៀបលាយជាមួយ Apha ឬ Transparency

```
<h1 style="background-color:rgba(255, 99, 71, 0.5);">...</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 0.5);">...</h1>
```

### របៀបជាត់ Text Color

```
<h1 style="color:Tomato;">Hello World</h1>
<p style="color:DodgerBlue;">Lorem ipsum...</p>
<p style="color:MediumSeaGreen;">Ut wisi enim...</p>
```

របៀបដាក់ Border Color

Hello World

Hello World

Hello World

<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>

\*\*\* ដើម្បីចូលទៅម៉ោង Color បន្ថែមទៅក្នុងសម្រាប់ការការពារ

[https://www.w3schools.com/colors/colors\\_picker.asp](https://www.w3schools.com/colors/colors_picker.asp)

\*\*\* ដើម្បីអាចចំណាំជាន់ទៅក្នុងការការពារប្រើកម្មវិធី Color Picker

[https://download.cnet.com/Just-Color-Picker/3000-2191\\_4-10428271.html](https://download.cnet.com/Just-Color-Picker/3000-2191_4-10428271.html)

\*\*\* ដើម្បីធ្វាយក្រុមការការពារ design web template អ្នកអាជីវកម្មមិនមែនជាលើកទេ

<https://www.canva.com/learn/100-color-combinations/>

<http://blog.visme.co/website-color-schemes/>

<https://material.io/design/color/the-color-system.html#color-theme-creation>

### 1.15. HTML-Create A Table

HTML table គឺត្រូវបានគេសរស់រាយដោយនឹង <table> tag.

រាល់ row នឹមួយនា ត្រូវបានប្រើដាក់មួយ <tr> tag។ ហើយ table header គឺត្រូវបានគេសរស់រាយនឹង <th> tag។ ជាតុលាត្រូវបានគេសរស់រាយជាអ្នកអាជីវកម្ម។ និង table data/cell គឺត្រូវបានគេសរស់រាយនឹង <td> tag។

ចំណាំ៖ The <td> elements are the data containers of the table.

They can contain all sorts of HTML elements; text, images, lists, other tables, etc.

<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>
</table>

```

No	Name	Address
1	Sok	ផ្ទះល្ងាច
2	Sao	កំពងចាម
3	Seng	ជំសឺន

### ការកំណត់ Border ទិន្នន័យ table

ត្រូវ css style

```

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

```

### ការកំណត់ Collapsed Borders ទិន្នន័យ table

ត្រូវ css style

```

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

```

### ការកំណត់ Cell Padding

ត្រូវ css style

```

th, td {
  padding: 15px;
}

```

### ការកំណត់ Text Alignment

ត្រូវ css style

```

th {
  text-align: left;
}

```

{}

### ការកំណត់ Cells that Span Many Columns

```
<table style="width:100%">  
  <tr>  
    <th>Name</th>  
    <th colspan="2">Telephone</th>  
  </tr>  
  <tr>  
    <td>Bill Gates</td>  
    <td>55577854</td>  
    <td>55577855</td>  
  </tr>  
</table>
```

### ការកំណត់ Cells that Span Many Rows

```
<table style="width:100%">  
  <tr>  
    <th>Name:</th>  
    <td>Bill Gates</td>  
  </tr>  
  <tr>  
    <th rowspan="2">Telephone:</th>  
    <td>55577854</td>  
  </tr>  
  <tr>  
    <td>55577855</td>  
  </tr>  
</table>
```

### ការបន្លំ Caption

```
<table style="width:100%">  
  <caption>Monthly savings</caption>  
  <tr>  
    <th>Month</th>
```

```
<th>Savings</th>
</tr>
<tr>
<td>January</td>
<td>$100</td>
</tr>
<tr>
<td>February</td>
<td>$50</td>
</tr>
</table>
```

### រារកំណត់ Special Style នៃ Table

```
<table id="t01">
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Age</th>
</tr>
<tr>
<td>Eve</td>
<td>Jackson</td>
<td>94</td>
</tr>
</table>
→
table#t01 {
    width: 100%;
    background-color: #f1f1c1;
}
→
table#t01 tr:nth-child(even) {
    background-color: red;
}
table#t01 tr:nth-child(odd) {
    background-color: green;
```

---

```

        }
    table#t01 th {
        color: white;
        background-color: black;
    }

```

លំហាត់៖

ទី៩៖

## A Basic Table

### HTML Superheroes

Hero	Power	Nemesis
The XMLator	Standards compliance	Sloppy Code Boy
Captain CSS	Superlayout	Lord Deprecated
Browser Woman	Megacompatibility	Ugly Code Monster

ទី១២៖

## Creating a Table Using <div> Tags

This is a Table

Heading 1	Heading 2	Heading 3
Row 1 Column 1	Row 1 Column 2	Row 1 Column 3
Row 2 Column 1	Row 2 Column 2	Row 2 Column 3

### 1.16. HTML-Image

Image (រូបភាព) នាំដូចជាលើកការណ៍ទៅលើ web page របស់រួមឱ្យការងារតែមានសេវាកំណត់។

`img src="pulpitrock.jpg" alt="Mountain View">`

#### HTML Images Syntax

ក្នុង HTML, images ត្រូវបានកំណត់ជាមួយ `<img>` tag។

<img> tag តើ empty, មានពេល attributes និងគ្មាន closing tagទេ។

**src attribute** ប្រើសម្រាប់កំណត់នូវគីតាំង URL (web address) របស់ image៖



**alt attribute** គឺជា alternate text សម្រាប់សម្រាប់ដឹងសិរីថានីមួយៗនៃ image ក្នុងករណី ប្រហែលជាមកពី slow connection ឬ error តើង src attribute មកពី screen reader។



### Image Size - Width and Height



ឬ



ឬ

<!DOCTYPE html>

<html>

<head>

<style>

img {

width:100%;

}

</style>

</head>

<body>





</body>

</html>

### Images in Another Folder



### Images on Another Server

```

```

### **Image Floating**

Use the CSS float property to let the image float to the right or to the left of a text:

```
<p>
```

The image will float to the right of the text.</p>

```
<p>
```

The image will float to the left of the text.</p>

### **Image Maps**

Use the <map> tag to define an image-map. An image-map is an image with clickable areas.

```

```

```
<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>
```

The name attribute of the <map> tag is associated with the <img>'s usemap attribute and creates a relationship between the image and the map.

The <map> tag contains a number of <area> tags, that defines the clickable areas in the image-map.

### **Background Image**

To add a background image on an HTML element, use the CSS property background-image:

```
<body style="background-image:url('clouds.jpg')">
<h2>Background Image</h2>
</body>
<body>
<p style="background-image:url('clouds.jpg')">
...
</p>
</body>
```

សំណាក់ខ្លួន

ទី ១៩

**Example 1 - Winter**

Demo showing figure markup element

**TITLE**

Description bla bla blabla bla blabla  
bla blabla bla blabla bla blabla bla  
blabla bla bla

**TITLE**

Description bla bla blabla bla blabla  
bla blabla bla blabla bla blabla bla  
blabla bla bla

**Example 2 - summer**

Demo showing figure and figcaption markup element

**TITLE**

Description bla bla blabla bla blabla  
bla blabla bla blabla bla blabla bla  
blabla bla bla

**TITLE**

Description bla bla blabla bla blabla  
bla blabla bla blabla bla blabla bla  
blabla bla bla

ទី ២០

LOREM IPSUM DOLOR SIT AMET  
Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritate et quasi architecto beatae vitae dicta sunt explicabo. Nemo ipsum voluptatum quis voluptas sit aspernatur aut...



LOREM IPSUM IS SIMPLY

Quisque nulla. Vestibulum libero nisi, porta vel, scelerisque eget, luctus id, neque. Viv aget nibh. Elam eius. Nulla facilis. Aenean nec eros. Vestibulum ante.



LOREM IPSUM IS SIMPLY

Quisque nulla. Vestibulum libero nisi, porta vel, scelerisque eget, luctus id, neque. Viv aget nibh. Elam eius. Nulla facilis. Aenean nec eros. Vestibulum ante.



LOREM IPSUM IS SIMPLY

Quisque nulla. Vestibulum libero nisi, porta vel, scelerisque eget, luctus id, neque. Viv aget nibh. Elam eius. Nulla facilis. Aenean nec eros. Vestibulum ante.



LOREM IPSUM IS SIMPLY

Quisque nulla. Vestibulum libero nisi, porta vel, scelerisque eget, luctus id, neque. Viv aget nibh. Elam eius. Nulla facilis. Aenean nec eros. Vestibulum ante.

**LOCATION**

1-23-003-55,  
Neque pono quiqueum,  
dolor sit amet,  
USA.

**INFORMATION**

Quisque ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.  
[Read More...](#)

**TESTIMONIALS**

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[Read More...](#)

- Lorem ipsum dolor

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Design by W3Layouts

### The <picture> Element

និង support បានពេជ្យាយ HTML5 ទៅការកំណត់ទីតាំងរបស់របភាពមានលក្ខណៈ flexible។ នៅក្បាន `<picture>` element មួយមាន `<source>` element ដាក់ចិនឡើតដែលគេប្រើវាដើម្បីកំណត់ទីតាំងរបស់របភាពត្រូវទៅតាមប្រភេទ device (pc, smart device, mobile phone,...)។

ជាពួរក្រាយគេតែងតែប្រើ `<img>` ដើម្បីកំណត់របភាពជាតុល្លាច់ default សម្រាប់ web page។

```
<picture>
    <source media="(min-width: 650px)" srcset="img_pink_flowers.jpg">
    <source media="(min-width: 465px)" srcset="img_white_flower.jpg">
    
</picture>
```

### លំហាត់

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>

<picture>
    <source media="(min-width: 650px)" srcset="img_pink_flowers.jpg">
    <source media="(min-width: 465px)" srcset="img_white_flower.jpg">
    
</picture>

<p>Resize the browser to see different versions of the picture loading at different viewport sizes.  

The browser looks for the first source element where the media query matches the user's current viewport width, and fetches the image specified in the srcset attribute.</p>

<p>The img element is required as the last child tag of the picture declaration block. The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source tags matched.</p>

<p><strong>Note:</strong> The picture element is not supported in IE12 and earlier or Safari 9.0 and earlier.</p>

</body>
</html>
```



Resize the browser to see different versions of the picture loading at different viewport sizes. The browser looks for the first source element where the media query matches the user's current viewport width, and fetches the image specified in the srcset attribute.

The img element is required as the last child tag of the picture declaration block. The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source tags matched.

Note: The picture element is not supported in IE12 and earlier or Safari 9.0 and earlier.

### 1.17. Understand about file path

Path	Description
<code>&lt;img src="picture.jpg"&gt;</code>	picture.jpg is located in the same folder as the current page
<code>&lt;img src="images/picture.jpg"&gt;</code>	picture.jpg is located in the images folder in the current folder
<code>&lt;img src="/images/picture.jpg"&gt;</code>	picture.jpg is located in the images folder at the root of the current web
<code>&lt;img src="../picture.jpg"&gt;</code>	picture.jpg is located in the folder one level up from the current folder

file path គឺជាពាណានអី location របស់ fileនៃក្នុង web site's folder structure.

File paths ត្រូវបានគេប្រើប្រាស់ដើម្បី link ទៅកាន់ external files ដូចខាងក្រោម៖

- Web pages
- Images
- Style sheets

-JavaScripts

### **Absolute File Paths**

គីជាតិ full URL ទៅកាន់ internet file

```

```

### **Relative File Paths**

ជាផីតាគចាប់ផ្តើមជាមួយ current page

A file in the images folder located at the root of the current web

```

```

A file in the images folder located in the current folder:

```

```

A file in the images folder located in the folder one level above the current folder:

```

```

## **1.18. HTML Block and Inline Element**

ត្រូវបាន HTML element ទាំងអស់សូមទៅមាន default display value អាស៊ីយទៅលើប្រភេទរបស់វា សិន្យត្រូវបាន element ភាគព្រឹនតិច Block ឬ Inline។

### **Block-level Elements**

វាទាប់ផ្ទើមពី line និង បើយោង full width

```
<div>Hello</div>
```

```
<div>World</div>
```

The `<div>` element is often used as a container for other HTML elements.

The `<div>` element has no required attributes, but both style and class are common.

When used together with CSS, the `<div>` element can be used to style blocks of content:

```
<div style="background-color:black;color:white;padding:20px;">
```

```
<h2>London</h2>
```

`<p>London is the capital city of England. It is the most populous city in the United Kingdom, with a metropolitan area of over 13 million inhabitants.</p>`

```
</div>
```

## Block level elements ផ្សេងៗទៅក្នុង HTML:

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

### Inline Elements

វាគិនចាប់ផ្តើមនូវ line ប្រើនោះទេ ជាទុទៅត្រាន់តែបន្ថែម width ក្នុងករណីចាប់បុង។

<span>Hello</span>

<span>World</span>

The <span> element is often used as a container for some text.

The <span> element has no required attributes, but both style and class are common.

When used together with CSS, the <span> element can be used to style parts of the text:

<h1>My <span style="color:red">Important</span> Heading</h1>

## Inline elements ផ្សេងៗទៅក្នុង HTML:

<a>	<abbr>	<acronym>	<b>	<bdo>	<big>	 
<button>	<cite>	<code>	<dfn>	<em>	<i>	<img>
<input>	<kbd>	<label>	<map>	<object>	<q>	<samp>
<script>	<select>	<small>	<span>	<strong>	<sub>	<sup>
<textarea>	<time>	<tt>	<var>			

### 1.19. Marquee

HTML **marquee** គឺសម្រាប់បង្កើតអក្សរត់ (scrolling piece of text displayed) ធ្លានទាំង horizontally across ឬ vertically down លើ webpage។

ចំណាំ – The <marquee> tag deprecated in HTML5. Do not use this element, instead you can use **JavaScript and CSS** to create such effects.

#### The <marquee> Tag Attributes

Sr.No	Attribute & Description
1	<b>width</b> This specifies the width of the marquee. This can be a value like 10 or 20% etc.
2	<b>height</b> This specifies the height of the marquee. This can be a value like 10 or 20% etc.
3	<b>direction</b> This specifies the direction in which marquee should scroll. This can be a value like <i>up, down, left or right</i> .

<b>4</b>	<b>behavior</b>
	This specifies the type of scrolling of the marquee. This can have a value like <i>scroll</i> , <i>slide</i> and <i>alternate</i> .
<b>5</b>	<b>scrolldelay</b>
	This specifies how long to delay between each jump. This will have a value like 10 etc.
<b>6</b>	<b>scrollamount</b>
	This specifies the speed of marquee text. This can have a value like 10 etc.
<b>7</b>	<b>loop</b>
	This specifies how many times to loop. The default value is INFINITE, which means that the marquee loops endlessly.
<b>8</b>	<b>bgcolor</b>
	This specifies background color in terms of color name or color hex value.
<b>9</b>	<b>hspace</b>
	This specifies horizontal space around the marquee. This can be a value like 10 or 20% etc.
<b>10</b>	<b>vspace</b>
	This specifies vertical space around the marquee. This can be a value like 10 or 20% etc.

### ឧទាហរណ៍១៖

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML marquee Tag</title>
  </head>
  <body>
    <marquee>This is basic example of marquee</marquee>
  </body>
</html>
```

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML marquee Tag</title>
  </head>
  <body>
    <marquee width = "50%">This example will take only 50% width</marquee>
```

```
</body>
```

```
</html>
```

### ឧទាហរណ៍២៖

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML marquee Tag</title>
  </head>
  <body>
    <marquee direction = "right">This text will scroll from left to right</marquee>
  </body>
</html>
```

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML marquee Tag</title>
  </head>
  <body>
    <marquee direction = "up">This text will scroll from bottom to up</marquee>
  </body>
</html>
```

## 1.20. HTML Multimedia

Multimedia គឺវាមានប្រើនទំង់ប្រើនប្រកទេដូចជាការរួមចាប់ផ្តើមដែលអ្នកអាជីវកម្មបានយើង ប្រសិទ្ធភាព។

**ឧទាហរណ៍១:** Images, music, sound, videos, records, films, animations, និងធ្វើងទេត។

Web pages គឺអាចដាក់ multimedia elements ប្រើន types និង formats ដូចជា។

កាលពីដំបូងបង្កស់ Browser នឹង support បាននៅក្នុង text និង single color តែប៉ុន្មានទៅក្នុងការ support បាន font, color, image។ Audio, video, animation ត្រូវបានដោះស្រាយតាមប្រើនរបៀបដោយ browsers ទេលខ៌ក្នុង extra program(plug-in)។

**Common Video Formats**

MP4 ជាបច្ចេកទេសចិនរក្សាយ និងជាជម្រើសល្អបំផុត

Format	File	Description
<b>MPEG</b>	.mpg .mpeg	MPEG. Developed by the Moving Pictures Expert Group. The first popular video format on the web. Used to be supported by all browsers, but it is not supported in HTML5 (See MP4).
<b>AVI</b>	.avi	AVI (Audio Video Interleave). Developed by Microsoft. Commonly used in video cameras and TV hardware. Plays well on Windows computers, but not in web browsers.
<b>WMV</b>	.wmv	WMV (Windows Media Video). Developed by Microsoft. Commonly used in video cameras and TV hardware. Plays well on Windows computers, but not in web browsers.
<b>QuickTime</b>	.mov	QuickTime. Developed by Apple. Commonly used in video cameras and TV hardware. Plays well on Apple computers, but not in web browsers. (See MP4)
<b>RealVideo</b>	.rm .ram	RealVideo. Developed by Real Media to allow video streaming with low bandwidths. It is still used for online video and Internet TV, but does not play in web browsers.
<b>Flash</b>	.swf .flv	Flash. Developed by Macromedia. Often requires an extra component (plug-in) to play in web browsers.
<b>Ogg</b>	.ogg	Theora Ogg. Developed by the Xiph.Org Foundation. Supported by HTML5.
<b>WebM</b>	.webm	WebM. Developed by the web giants, Mozilla, Opera, Adobe, and Google. Supported by HTML5.
<b>MPEG-4 or MP4</b>	.mp4	MP4. Developed by the Moving Pictures Expert Group. Based on QuickTime. Commonly used in newer video cameras and TV hardware. Supported by all HTML5 browsers. Recommended by YouTube.

ចំណាំ៖ Only MP4, WebM, and Ogg video are supported by the HTML5 standard.

**Audio Formats**

MP3 ជាបច្ចេកទេសចិនរក្សាយ និងជាជម្រើសល្អបំផុត

Format	File	Description
<b>MIDI</b>	.mid .midi	MIDI (Musical Instrument Digital Interface). Main format for all electronic music devices like synthesizers and PC sound cards. MIDI files do not contain sound, but digital notes that can be played by electronics. Plays well on all computers and music hardware, but not in web browsers.
<b>RealAudio</b>	.rm .ram	RealAudio. Developed by Real Media to allow streaming of audio with low bandwidths. Does not play in web browsers.
<b>WMA</b>	.wma	WMA (Windows Media Audio). Developed by Microsoft. Commonly used in music players. Plays well on Windows computers, but not in web browsers.
<b>AAC</b>	.aac	AAC (Advanced Audio Coding). Developed by Apple as the default format for iTunes. Plays well on Apple computers, but not in web browsers.
<b>WAV</b>	.wav	WAV. Developed by IBM and Microsoft. Plays well on Windows, Macintosh, and Linux operating systems. Supported by HTML5.
<b>Ogg</b>	.ogg	Ogg. Developed by the Xiph.Org Foundation. Supported by HTML5.

<b>MP3</b>	.mp3	MP3 files are actually the sound part of MPEG files. MP3 is the most popular format for music players. Combines good compression (small files) with high quality. Supported by all browsers.
<b>MP4</b>	.mp4	MP4 is a video format, but can also be used for audio. MP4 video is the upcoming video format on the internet. This leads to automatic support for MP4 audio by all browsers.

ចំណាំ៖ Only MP3, WAV, and Ogg audio are supported by the HTML5 standard.

### ការរឹបថ្មាន **<embed>** និង **<noembed>**

<embed> សម្រាប់ជាក់ music ឬ video លើ web page។ ឬ <noembed> សម្រាប់ជាក់រូបភាព។

Browser ខ្សោយដែលមិនអាចបង្កើតឡើងតាមការណែនាំទាំងនេះ នឹងបង្កើតឡើងដោយប្រើ <noembed> ជាដំឡើង។

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>HTML embed Tag</title>
```

```
</head>
```

```
<body>
```

```
    <embed src = "/html/yourfile.mid" width = "100%" height = "60" >
```

```
    <noembed><img src = "yourimage.gif" alt = "Alternative Media" ></noembed>
```

```
    </embed>
```

```
</body>
```

```
</html>
```

### The **<embed>** Tag Attributes

Sr.No	Attribute & Description
1	<b>align</b>  Determines how to align the object. It can be set to either center, <i>left</i> or <i>right</i> .
2	<b>autoplay</b>  This boolean attribute indicates if the media should start automatically. You can set it either true or false.
3	<b>loop</b>  Specifies if the sound should be played continuously (set loop to true), a certain number of times (a positive value) or not at all (false)
4	<b>playcount</b>  Specifies the number of times to play the sound. This is alternate option for <i>loop</i> if you are using IE.

<b>5</b>	<b>hidden</b>
	Specifies if the multimedia object should be shown on the page. A false value means no and true values means yes.
<b>6</b>	<b>width</b>
	Width of the object in pixels
<b>7</b>	<b>height</b>
	Height of the object in pixels
<b>8</b>	<b>name</b>
	A name used to reference the object.
<b>9</b>	<b>src</b>
	URL of the object to be embedded.
<b>10</b>	<b>volume</b>
	Controls volume of the sound. Can be from 0 (off) to 100 (full volume).

### Supported Video Types

You can use various media types like Flash movies (.swf), AVI's (.avi), and MOV's (.mov) file types inside embed tag.

- .swf files – are the file types created by Macromedia's Flash program.
- .wmv files – are Microsoft's Window's Media Video file types.
- .mov files – are Apple's Quick Time Movie format.
- .mpeg files – are movie files created by the Moving Pictures Expert Group.

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML embed Tag</title>
  </head>
  <body>
    <embed src = "/html/yourfile.swf" width = "200" height = "200" >
    <noembed><img src = "yourimage.gif" alt = "Alternative Media" ></noembed>
  </embed>
  </body>
</html>
```

លំហាត់ទៅ



### Play Video (HTML <video> tag)

<video> ជាស្ថាដែលអាចប្រើសម្រាប់ជាក់សំឡេងលើ web page ហើយត្រូវបានគេណានៅឯកប្រើប្រាស់ក្នុង HTML5។ ឧបាទរាយជាប្រព័ន្ធឌីជីថាមពី version ដំបូងរហស្តី browsers ដើម្បី support នឹង <video> tag

Element	Chrome	Edge	Firefox	Opera	IE
<video>	4.0	9.0	3.5	4.0	10.5

```
<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
Your browser does not support the video tag.
</video>
```

ធ្វើឡើងវិញ `autoplay`

```
<video width="320" height="240" autoplay>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
Your browser does not support the video tag.
</video>
```

ចំណាំ៖ The autoplay attribute does not work in mobile devices like iPad and iPhone.

Browser	MP4	WebM	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	NO	NO
Opera	YES (from Opera 25)	YES	YES

File Format	Media Type
<b>MP4</b>	video/mp4
<b>WebM</b>	video/webm
<b>Ogg</b>	video/ogg

### លំហាត់



### Background Audio (HTML <bgsound> tag)

<bgsound> នឹងត្រូវបានគឺ removed នៅពេលខាងមុខ

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML embed Tag</title>
  </head>
  <body>
    <bgsound src = "/html/yourfile.mid">
    <noembed><img src = "yourimage.gif" ></noembed>
    </bgsound>
  </body>
</html>
```

### Background Audio (HTML <audio> tag)

<audio> ជាស្ថិតិថាគារដែរគឺសម្រាប់ជាក់សំឡើងលើ web page ហើយត្រូវបានគេណែនាំឡើងប្រើប្រាស់ក្នុង HTML5។ ខាងក្រោមជាទី version ដំបូងរបស់ browsers ដែល support នឹង <audio> tag

Element					
<audio>	4.0	9.0	3.5	4.0	10.5

```
<audio controls>
<source src="horse.ogg" type="audio/ogg">
<source src="horse.mp3" type="audio/mpeg">
```

Your browser does not support the audio element.

</audio>

Browser	MP3	Wav	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

File Format	Media Type
MP3	audio/mpeg
Ogg	audio/ogg
Wav	audio/wav

### HTML Object tag

HTML4 တာနဝေဆုံးဖြစ်ပြီ <object> tag ဖော်မှုပြုခြင်း၊ embed နှင့် ဆောင်ရွက်ခြင်း အပဲ မြင်တဲ့ sound video document file...

### **Embed HTML doc**

```
<object data = "data/test.htm" type = "text/html" width = "300" height = "200">
    alt : <a href = "data/test.htm">test.htm</a>
</object>
```

### **Embed PDF file**

```
<object data = "data/test.pdf" type = "application/pdf" width = "300" height = "200">
    alt : <a href = "data/test.pdf">test.htm</a>
</object>
```

### **Embed Wav File**

```
<object data = "data/test.wav" type = "audio/x-wav" width = "200" height = "20">
    <param name = "src" value = "data/test.wav">
    <param name = "autoplay" value = "false">
    <param name = "autoStart" value = "0">
    alt : <a href = "data/test.wav">test.wav</a>
</object>
```

### **Embed Flash File**

```
<object classid = "clsid:D27CDB6E-AE6D-11cf-96B8-444553540000" id = "penguin"
    codebase = "someplace/swflash.cab" width = "200" height = "300">
    <param name = "movie" value = "flash/penguin.swf" />
    <param name = "quality" value = "high" />
    <img src = "penguin.jpg" width = "200" height = "300" alt = "Penguin" />
</object>
```

### HTML Plug-ins

រួមចំណាំជាប្រព័ន្ធដែលត្រូវការការពារជាពេលវេលាដើម្បីបង្កើតក្នុងទូទាត់ web browser។

Examples of well-known plug-ins are Java applets.

Plug-ins can be added to web pages with the <object> tag or the <embed> tag.

Plug-ins can be used for many purposes: display maps, scan for viruses, verify your bank id, etc.

<embed>, <object>, <video>, <audio> គឺជាធិធី plug-in

<object width="400" height="50" data="bookmark.swf"></object>

<object width="100%" height="500px" data="snippet.html"></object>

<object data="audi.jpeg"></object>

<embed width="400" height="50" src="bookmark.swf">

<embed width="100%" height="500px" src="snippet.html">

<embed src="audi.jpeg">

### HTML YouTube Video

ដើម្បីរៀបចំ VIDEO ពី YOUTUBE មក PLAY លើ WEB PAGE របស់អ្នកចូរឡើតាមខាងក្រោម៖

- Upload the video to YouTube
- Take a note of the video id
- Define an <iframe> element in your web page
- Let the src attribute point to the video URL
- Use the width and height attributes to specify the dimension of the player
- Add any other parameters to the URL (see below)

```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/XGSy3_Czz8k">
</iframe>
```

#### **Set autoplay(0 is false, 1 is true)**

```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/XGSy3_Czz8k?autoplay=1">
</iframe>
```

#### **Set Loop(0 is false, 1 is true)**

```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/XGSy3_Czz8k?playlist=XGSy3_Czz8k&loop=1">
</iframe>
```

## 1.21. IFrames

IFrame គឺជាពាណនគេប្រព័ន្ធដែលដើរក្នុងទូទាត់ web page មួយមកដាក់ក្នុង web page មួយផ្សេងទៀត។

**Iframe Syntax:**

```
<iframe src="URL"></iframe>
```

**ឧទាហរណ៍:**

```
<iframe src="demo_iframe.htm" height="200" width="300"></iframe>
```

ឬ

```
<iframe src="demo_iframe.htm" style="height:200px;width:300px;"></iframe>
```

**Iframe - Remove the Border**

```
<iframe src="demo_iframe.htm" style="border:none;"></iframe>
```

ឬ

```
<iframe src="demo_iframe.htm" style="border:2px solid red;"></iframe>
```

**Iframe - Target for a Link**

```
<iframe src="demo_iframe.htm" name="iframe_a"></iframe>
```

```
<p><a href="https://www.w3schools.com" target="iframe_a">W3Schools.com</a></p>
```

**Attribute នៃ iframe HTML5**

Attribute	Value	Description
<a href="#">align</a>	left right top middle bottom	<b>Not supported in HTML5.</b> Specifies the alignment of an <u>iframe</u> according to surrounding elements
<a href="#">frameborder</a>	1 0	<b>Not supported in HTML5.</b> Specifies whether or not to display a border around an <u>iframe</u>
<a href="#">height</a>	<i>pixels</i>	Specifies the height of an <u>iframe</u>
<a href="#">longdesc</a>	<i>URL</i>	<b>Not supported in HTML5.</b> Specifies a page that contains a long description of the content of an <u>iframe</u>
<a href="#">marginheight</a>	<i>pixels</i>	<b>Not supported in HTML5.</b> Specifies the top and bottom margins of the content of an <u>iframe</u>

<a href="#"><u>marginwidth</u></a>	<i>pixels</i>	Not supported in HTML5. Specifies the left and right margins of the content of an <iframe>
<a href="#"><u>name</u></a>	<i>text</i>	Specifies the name of an <iframe>
<a href="#"><u>sandbox</u></a>	allow-forms allow-pointer-lock allow-popups allow-same-origin allow-scripts allow-top-navigation	Enables an extra set of restrictions for the content in an <iframe>
<a href="#"><u>scrolling</u></a>	yes no auto	Not supported in HTML5. Specifies whether or not to display scrollbars in an <iframe>
<a href="#"><u>src</u></a>	<i>URL</i>	Specifies the address of the document to embed in the <iframe>
<a href="#"><u>srcdoc</u></a>	<i>HTML_code</i>	Specifies the HTML content of the page to show in the <iframe>
<a href="#"><u>width</u></a>	<i>pixels</i>	Specifies the width of an <iframe>

លំហាត់៖

The screenshot shows a website interface titled "IFrame Sample Website". On the left, there's a sidebar with links: "Profile" (highlighted in green), "Videos", and "Photos". The main content area has a navigation bar with tabs: "Personal" (highlighted in green), "Social", "Educational", and "Contact". Below the navigation bar, the URL "Profile >> Home" is visible. The main content area contains a form titled "Personal Details" with fields for First Name, Last Name, Address, City, Region, Country, and Zip Code. At the bottom of the form are "Save" and "Cancel" buttons.

## 1.22. Classes and Id Attribute

HTML Class Attribute គឺអាចត្រូវបានរបៀបប្រាស់ដោយ CSS ឬ JavaScript។ វាត្រូវបានធ្វើមដោយសញ្ញា period (.) បន្ទាប់មកជាលូយ្យាជែន class នេះ។

### ឧទាហរណ៍៖ ប្រើ CSS

```
<style>
.city {
    background-color: tomato;
    color: white;
    padding: 10px;
}
</style>
```

```
<h2 class="city">London</h2>


```

### ឧទាហរណ៍៖ ប្រើ JavaScript

```
<!DOCTYPE html>
<html>
<body>
<h2>Using The class Attribute in JavaScript</h2>
<p>Click the button, to hide all elements with the class name "city", with JavaScript:</p>
<button onclick="myFunction()">Hide elements</button>
<h2 class="city">London</h2>
<p>London is the capital of England.</p>
<h2 class="city">Paris</h2>
<p>Paris is the capital of France.</p>
<h2 class="city">Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>
<script>
function myFunction() {
```

London

London is the capital of England.

Paris

Paris is the capital of France.

Tokyo

Tokyo is the capital of Japan.

### Using The class Attribute in JavaScript

Click the button, to hide all elements with the class name "city", with JavaScript:

London

London is the capital of England.

Paris

Paris is the capital of France.

Tokyo

Tokyo is the capital of Japan.

```

var x = document.getElementsByClassName("city");
for (var i = 0; i < x.length; i++) {
  x[i].style.display = "none";
}
}
</script>
</body>
</html>

```

## របៀបប្រើប្រាស់ Multiple Classes

```
<!DOCTYPE html>
```

```
<html>
```

```
<style>
```

```
.city {
```

```
background-color: tomato;
```

```
color: white;
```

```
padding: 10px;
```

```
}
```

```
.main {
```

```
text-align: center;
```

```
}
```

```
</style>
```

```
<body>
```

```
<h2>Multiple Classes</h2>
```

All three headers have the class name "city". In addition, London also have the class name "main", which center-aligns the text.

## Multiple Classes

London

Paris

Tokyo

**ID attribute** គឺជាគារត្រួវបានប្រើប្រាស់ដោយ CSS ឬ JavaScript។ វាប្រព័ន្ធដាប់ផ្តើមដោយសង្ឃ hash (#) និងនៅពីក្រាយដោយលេខ៖នៃ ID។ ID គឺជាលេខ៖លបស់ HTML element។

ឧទាហរណ៍៖ ប្រើ ID ជាមួយនឹង CSS

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
#myHeader {
```

```
    background-color: lightblue;
```

```
    color: black;
```

```
    padding: 40px;
```

```
    text-align: center;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>The id Attribute</h2>
```

Use CSS to style an element with the id "myHeader":

```
<h1 id="myHeader">My Header</h1>
```

```
</body>
```

```
</html>
```

ឧទាហរណ៍៖ ប្រើ ID ជាមួយនឹង JavaScript

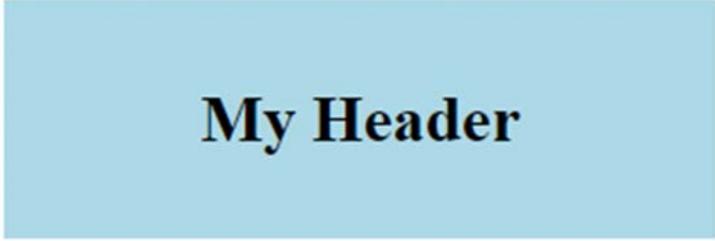
```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

## The id Attribute

Use CSS to style an element with the id "myHeader":



My Header

## Using The id Attribute in JavaScript

JavaScript can access an element with a specified id by using the `getElementById()` method:

Hello World!

```
<h2>Using The id Attribute in JavaScript</h2>
```

JavaScript can access an element with a specified id by using the `getElementById()` method:

```
<h1 id="myHeader">Hello World!</h1>
```

```
<button onclick="displayResult()">Change text</button>
```

```
<script>
```

```
function displayResult() {
    document.getElementById("myHeader").innerHTML = "Have a nice day!";
}
</script>
</body>
</html>
```

## ඇංජිනේරුවා Bookmarks with ID and Links

Create bookmark

```
<h2 id="C4">Chapter 4</h2>
```

Link to bookmark

```
<a href="#C4">Jump to Chapter 4</a>
```

යු

```
<a href="html_demo.html#C4">Jump to Chapter 4</a>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p><a href="#C4">Jump to Chapter 4</a></p>
```

```
<h2>Chapter 1</h2>
```

```
<p>This chapter explains ba bla bla</p>
```

```
<h2>Chapter 2</h2>
```

```
<p>This chapter explains ba bla bla</p>
```

```
<h2>Chapter 3</h2>
```

```
<p>This chapter explains ba bla bla</p>
```

```
<h2 id="C4">Chapter 4</h2>
```

```
<p>This chapter explains ba bla bla</p>
```

```
<h2>Chapter 5</h2>
```

```
<p>This chapter explains ba bla bla</p>
```

```
<h2>Chapter 6</h2>
```

```
<p>This chapter explains ba bla bla</p>
```

```
<h2>Chapter 7</h2>
```

---

```
<p>This chapter explains ba bla bla</p>
```

<h2>Chapter 8</h2>

[Jump to Chapter 4](#)

<p>This chapter explains ba bla bla</p>

<h2>Chapter 9</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 10</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 11</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 12</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 13</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 14</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 15</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 16</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 17</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 18</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 19</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 20</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 21</h2>

<p>This chapter explains ba bla bla</p>

<h2>Chapter 22</h2>

## Chapter 1

This chapter explains ba bla bla

## Chapter 2

This chapter explains ba bla bla

## Chapter 3

This chapter explains ba bla bla

## Chapter 4

This chapter explains ba bla bla

## Chapter 5

This chapter explains ba bla bla

## Chapter 6

This chapter explains ba bla bla

## Chapter 7

---

```
<p>This chapter explains ba bla bla</p>
<h2>Chapter 23</h2>
<p>This chapter explains ba bla bla</p>
</body>
</html>
```

### 1.23. HTML with JavaScript

`<script>` tag ប្រើសម្រាប់សរសេរ client-side script (JavaScript) នា `<script>` កំណត់ប្រើ `src` attribute ដើម្បី link ទៅកាន់ external script file បានធានាដើរ។

ជាងទេគេប្រើ JavaScript ក្នុងគោលបំណង image manipulation, form validation, និង dynamic changes of content។

យើងប្រើ `document.getElementById()` ដើម្បីទាញយក HTML element

**Ex1:** JavaScript can change HTML content

```
<script>
document.getElementById("demo").innerHTML = "Hello JavaScript!";
</script>
```

**Ex2:** JavaScript can change HTML styles

```
document.getElementById("demo").style.fontSize = "25px";
document.getElementById("demo").style.color = "red";
document.getElementById("demo").style.backgroundColor = "yellow";
```

**Ex3:** JavaScript can change HTML attributes

```
document.getElementById("image").src = "picture.gif";
```

**HTML `<noscript>` Tag** ត្រូវបានគេប្រើដើម្បីបង្ហាញ message នៅពេលដែល browser មិនដំណឹងការជាមួយនឹង `<script>`។

**ឧទាហរណ៍៖**

```
<!DOCTYPE html>
<html>
<body>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = "Hello JavaScript!";
</script>
```

```
<noscript>Sorry, your browser does not support JavaScript!</noscript>
<p>A browser without support for JavaScript will show the text written inside the noscript element.</p>
</body>
</html>
```

### លំហាត់:

```
<!DOCTYPE html>
<html>
<body>
<script>
function light(sw) {
    var pic;
    if (sw == 0) {
        pic = "pic_bulboff.gif"
    } else {
        pic = "pic_bulbon.gif"
    }
    document.getElementById('myImage').src
= pic;
}
</script>



<p>
<button type="button"
onclick="light(1)">Light On</button>
<button type="button"
onclick="light(0)">Light Off</button>
</p>

</body>
</html>
```



## 1.24. Page Layout

Web Layout គឺជាគ្រាងផ្តើងប្បរកដែន web page ជាពីរភ្លើយត្រូវបានបង្ហាញជាប្រើន columns ទៅរដ្ឋជូចជាមិន magazine ឬ newspaper ។

HTML5 បានផ្តល់នូវ part ធ្វើដែលត្រូវបានបង្ហាញជាប្រើន web page មួយ៖



- <header> - Defines a header for a document or a section
- <nav> - Defines a container for navigation links
- <section> - Defines a section in a document
- <article> - Defines an independent self-contained article
- <aside> - Defines content aside from the content (like a sidebar)
- <footer> - Defines a footer for a document or a section
- <details> - Defines additional details
- <summary> - Defines a heading for the <details> element

ចំណាំ៖ នៅក្នុងការរៀបចំ HTML Layout យើងមានវិធីសាស្ត្រខាងក្រោម៖

**១- HTML tables (not recommended)** : They will bring a mess into your code.

**២- CSS float property** : web layouts using the CSS float property is easy to learn, just remember float and clear properties. But Disadvantages is Floating elements are tied to the document flow, which may harm the flexibility.

([https://www.w3schools.com/css/css\\_float.asp](https://www.w3schools.com/css/css_float.asp))

**៣- CSS flexbox** : Flexbox is a new layout mode in CSS3. page layout must accommodate different screen sizes and different display devices. Disadvantages: Does not work in IE10 and earlier.

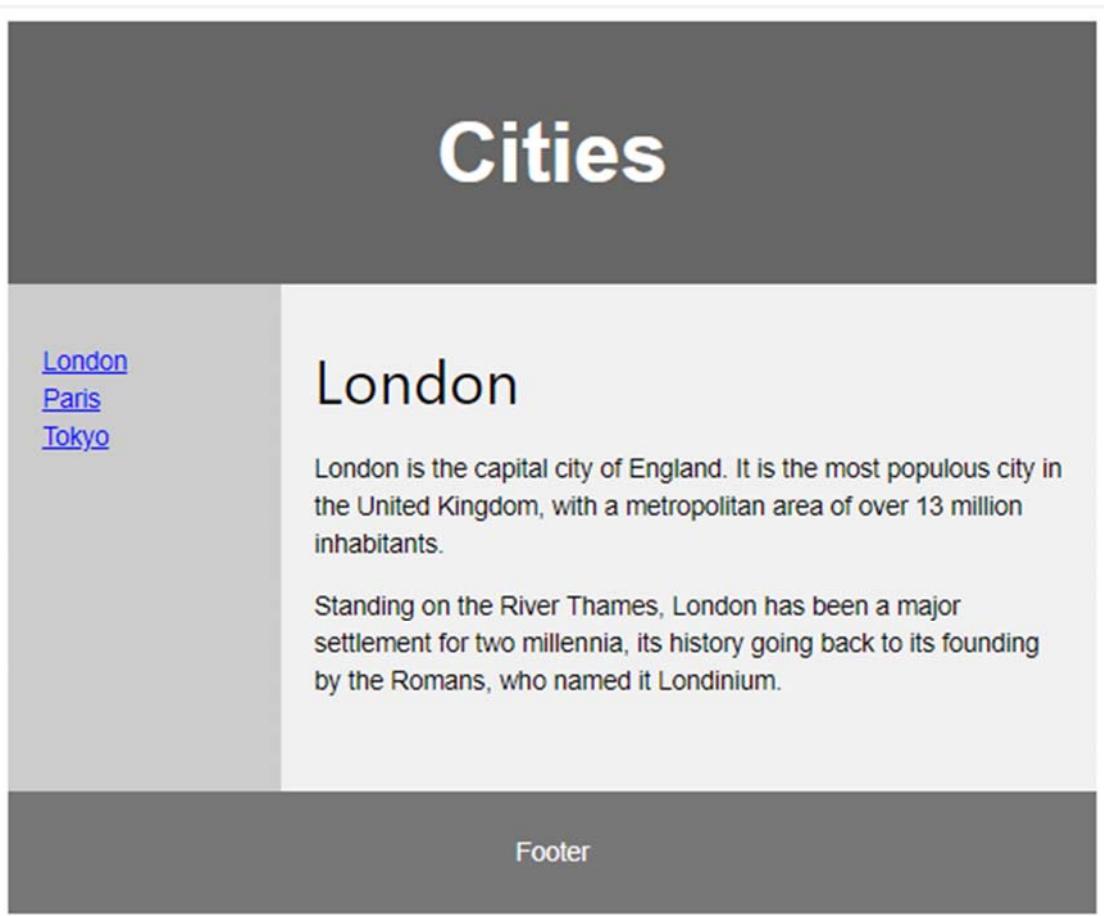
([https://www.w3schools.com/css/css3\\_flexbox.asp](https://www.w3schools.com/css/css3_flexbox.asp))

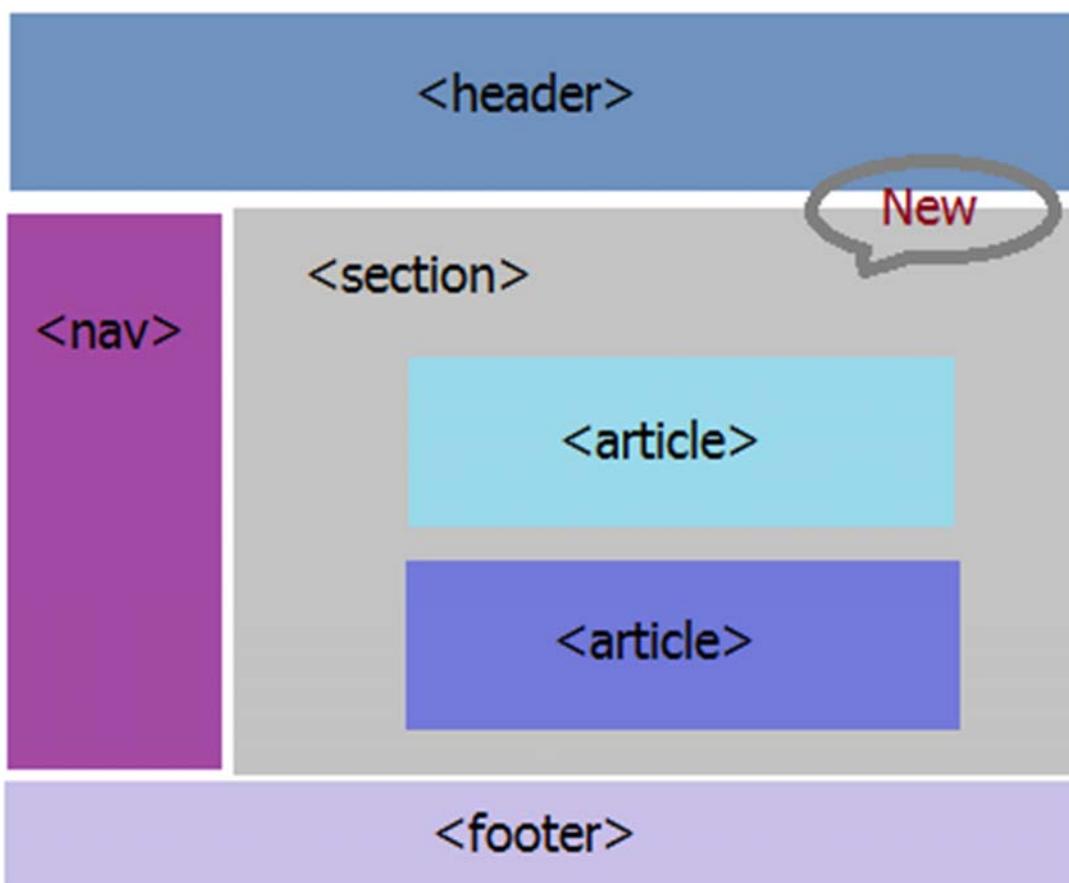
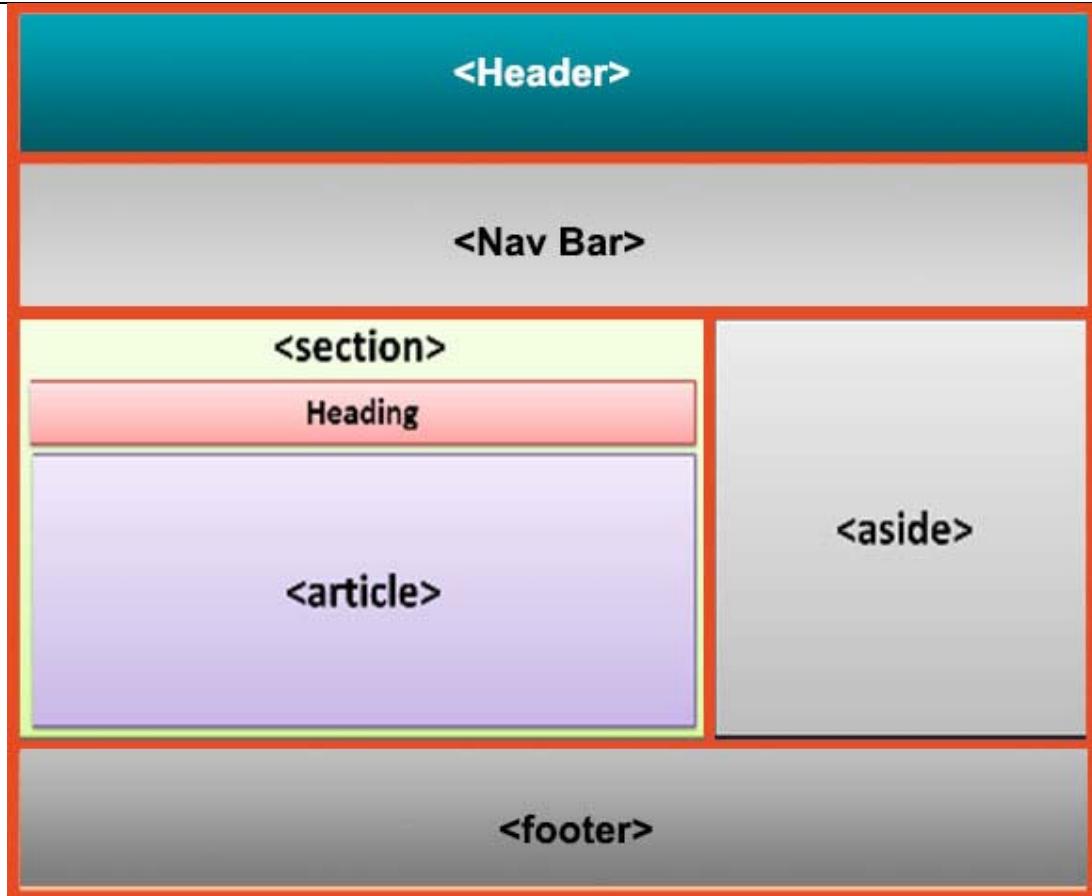
**៤- CSS framework** : បើអ្នកចង់បង្កើត layout បានលើនេះអ្នកគូរប្រើប្រាស់ frameworkដូចជា W3.CSS ឬ Bootstrap។

(<https://www.w3schools.com/bootstrap/default.asp>)

(<https://www.w3schools.com/w3css/default.asp>)

**លំហាត់៖** ចូរបង្កើត web page layout ខាងក្រោមដោយប្រើប្រាស់វិធីសាស្ត្រណាមួយខាងលើ





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- CRAS ET NISI VITAE ODIO

**"QUISQUE IN ENIM VELIT, AT DIGNISSIM EST. NULLA UL CORPER, DOLOR AC PELLentesque PLACERAT, JUSTO TELLUS GRAVIDA ERAT, VEL PORTTITOR LIBERO ERAT."**

John Doe, Lorem Ipsum

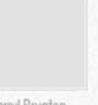
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Lore ipsum dolor sit amet, consectetur adipiscing elit. Aenean non neque ac sem accumsan rhoncus ut ut turpis. In hac habitasse platea dictumst. Proin eget nisi erat, et feugiat arcu. Duis semper porttitor lectus, ac pharetra erat imperdiet nec. Morbi interdum fels nula. Aenean eros orci, pellentesque sed egestas vitae, auctor aliquam nisi. Nulla nec libero eget sem rutrum iaculis. Quisque in enim velit, at dignissim est. Nulla ullamcorper, dolor ac pellentesque placerat, justo telus gravida erat, vel porttitor libero erat condimentum metus. Donec sodales aliquam orci id suscipit. Proin sed risus sit amet massa ultrices lareet quis a erat. Aliquam et metus id erat vulputate egestas. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Donec vel nisl nibh. Aenean quam tortor, tempus sit amet mattis dapibus, egestas tempor dui. Duis vestibulum imperdiet risus pretium pretium. Nunc vitae porta ligula. Vestibulum sit amet nulla quam. Aenean lacinia, ante vitae sodales sagittis, leo fels bibendum neque, mattis sagittis neque una vel magna. Sed at sem vitae lorem blandit feugiat.

Donec vel orci purus, ut ornare orci. Aenean rutrum pellentesque quam. Quisque gravida adipiscing augue, eget commodo augue egestas varius. Integer volutpat, tellus porta tincidunt sodales, lacus est tempus odio, fringilla blandit tortor lectus ut sem. Pellentesque nec sem iacus, sit amet consequat neque. Etiam varius urna quis arcu cursus in consectetur du tincidunt. Quisque arcu orci, lacina eget pretium vel, aculus pellentesque nibh. Etiam cursus lacus eget neque viverra vestibulum. Aliquam erat volutpat. Duis pulvinar tellus ut urna facilis mollis. Maecenas ac pharetra dui. Pellentesque neque ante, luctus eget congue egest, rhoncus vel mauris. Duis nisl magna, aliquet a convallis non, venenatis at nisl. Nunc at quam eu magna malesuada dignissim. Duis bibendum aculus fels, eu venenatis risus sodales non. In ligula mi, faucibus eu tristique sed, vulputate rutrum dolor.

**OUR TEAM**

 John Doe ceo	 Saundra Pittsley team leader	 Julio Simser senior developer	 Margery Venuti senior developer	 Fernando Tondrea developer
 Ericka Nobriga art director	 Cody Rousselle senior ui designer	 Erik Wollman senior ui designer	 Dona Shoff ux designer	 Darryl Brunton ui designer

**TWITTER FEED**  
23 oct  
In ultricies pellentesque massa a porta. Aliquam ipsum enim, hendrerit ut porta nec, ullamcorper et null. In eget mi du, sit amet scelerisque nunc. Aenean aug

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## 1.25. Page Responsive

Responsive Web គឺជាការប្រើប្រាស់នូវ HTML និង CSS ដើម្បី resize, hide, shrink, ឬ enlarge ផែួយស្ថិយប្រភព លើ website មួយដែលមែនឡាតេកសាកសមលើគ្រប់ប្រភេទ devices ទាំងអស់ដូចជា desktops, tablets, phones។



### **Setting The Viewport :**

កាល់ពេលដែលអ្នកបង្កើត responsive web pages អ្នកត្រូវតែបន្ថែមនូវ <meta> element នូវគ្រប់ web page ទាំងអស់ ត្រូវបានបញ្ជាផ្ទាល់ថា browser នូវរបៀប control លើ page's dimensions និង scaling ។

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h2>Setting the Viewport</h2>
<p>This example does not really do anything, other than showing you how to add the viewport meta element.</p>
</body>
</html>
```

Without the viewport meta tag:



With the viewport meta tag:



## លំហាត់៖ ចូរបង្កើត Responsive Page នាងក្រាម៖

To understand this example, you should open this page on a phone or a tablet.



*Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum.*

**Responsive Images** : are images that scale nicely to fit any browser size

**Using Image Width 100% រៀនរាល់ជាងទំហំដឹង**

```
<!DOCTYPE html>
```

```
<html>
```

```
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
 <body>
```

```
   <h2>Responsive Image</h2>
```

```
   <p>When the CSS width property is set in a percentage value, the image will scale up and down when resizing the browser window. Resize the browser window to see the effect.</p>
```

```
   
```

```
 </body>
```

```
</html>
```

## Using the max-width Property 100% លូជាងប្រើ width រោចកម្មិនជាងទាំងទាំងដើម្បី

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h2>Responsive Image</h2>
<p>"max-width:100%" prevents the image from getting bigger than its original size. However, if you make the browser window smaller, the image will still scale down.</p>
<p>Resize the browser window to see the effect.</p>

</body>
</html>
```

## Show Different Images Depending on Browser Width:

HTML <picture> element អាចប្រើយើងកំណត់ផ្លូវ different images ស្របតាម different browser window sizes។

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h2>Show Different Images Depending on Browser Width</h2>
<p>Resize the browser width and the image will change at 600px and 1500px.</p>
<picture>
<source srcset="img_smallflower.jpg" media="(max-width: 600px)">
<source srcset="img_flowers.jpg" media="(max-width: 1500px)">
<source srcset="flowers.jpg">

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

**Responsive Text Size**: The text size can be set with a "vw" unit, which means the "viewport width"

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h1 style="font-size:10vw;">Responsive Text</h1>
<p style="font-size:5vw;">Resize the browser window to see how the text size scales.</p>
<p style="font-size:5vw;">Use the "vw" unit when sizing the text. 10vw will set the size to 10% of the viewport width.</p>
<p>Viewport is the browser window size. 1vw = 1% of viewport width. If the viewport is 50cm wide, 1vw is 0.5cm.</p>
</body>
</html>
```

**ចំណាំ**: Viewport is the browser window size. 1vw = 1% of viewport width. If the viewport is 50cm wide, 1vw is 0.5cm.

**Media Queries**: ជាបន្ថែមទៅតម្លៃកដើម្បី resize text និង images ផ្តល់អាជីវកម្ម media queries បានដាក់ដោយក្នុងការធ្វើឲ្យមាន responsive web pages។

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
* {
    box-sizing:border-box;
}
.left {
    background-color:#2196F3;
```

```
padding:20px;  
float:left;  
width:20%; /* The width is 20%, by default */  
}
```

```
.main {  
background-color:#f1f1f1;  
padding:20px;  
float:left;  
width:60%; /* The width is 60%, by default */  
}
```

```
.right {  
background-color:#4CAF50;  
padding:20px;  
float:left;  
width:20%; /* The width is 20%, by default */  
}
```

```
/* Use a media query to add a break point at 800px: */  
  
@media screen and (max-width:800px) {  
    .left, .main, .right {  
        width:100%; /* The width is 100%, when the viewport is 800px or smaller */  
    }  
}  
</style>  
</head>  
<body>
```

```
<h2>Media Queries</h2>  
  
<p>Resize the browser window.</p>  
  
<p>Make sure you reach the breakpoint at 800px when resizing this frame.</p>  
  
<div class="left">  
  <p>Left Menu</p>  
</div>  
  
<div class="main">  
  <p>Main Content</p>  
</div>  
  
<div class="right">  
  <p>Right Content</p>  
</div>  
</body>  
</html>
```

\*\*\* ចំណាំ វិធីសារស្ថិតិថម្លែងបង្កើតជារូបរាង responsive web page តើប្រើ framework ដូចជា W3.CSS ឬ Bootstrap។

លំហាត់ រួមបង្កើត responsive web page





## 1.26. Form និង Form Element

HTML form ឬមាន form elements ជាដីន។

### The <form> Element:

HTML <form> element ត្រូវបានគេប្រើប្រាស់ដើម្បីប្រាយលទ្ធផលនូវ user input:

<form>

.....

form elements

.....

</form>

First name:

Mickey

Last name:

Mouse

Submit

### The <input> Element:

មានប្រចិនប្រភេទដូចខាងក្រោម៖

Type	Description
<input type="text">	Defines a one-line text input field
<input type="radio">	Defines a radio button (for selecting one of many choices)
<input type="submit">	Defines a submit button (for submitting the form)

### ឧទាហរណ៍១៖ Text Input

```
<!DOCTYPE html>
<html>
<body>
<h2>Text Input</h2>
<form>
First name:<br>
<input type="text" name="firstname">
<br>
Last name:<br>
<input type="text" name="lastname">
</form>
<p>Note that the form itself is not visible.</p>
<p>Also note that the default width of a text input field is 20 characters.</p>
```

### Text Input

First name:

Last name:

### ឧទាហរណ៍២៖ Radio Button Input

```
<!DOCTYPE html>
<html>
<body>
<h2>Radio Buttons</h2>
<form>
<input type="radio" name="gender" value="male" checked> Male<br>
```

### Radio Buttons

- Male
- Female
- Other

```

<input type="radio" name="gender" value="female"> Female<br>
<input type="radio" name="gender" value="other"> Other
</form>
</body>
</html>

```

#### ឧចាបរណ្តីទាំងនេះ The Submit Button

```

<!DOCTYPE html>
<html>
<body>

<h2>HTML Forms</h2>
<form action="/action_page.php">
First name:<br>
<input type="text" name="firstname" value="Mickey">
<br>
Last name:<br>
<input type="text" name="lastname" value="Mouse">
<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>

```

ចំណាំ៖ action attribute ត្រូវបានគេប្រើដើម្បី send data ទៅកាន់ web page ពេលដែល user បាន submit button។

#### ឧចាបរណ្តីទាំងនេះ Using Target Attribute

```
<!DOCTYPE html>
```

```

<html>
<body>
```

```

<h2>The target Attribute</h2>
```

<p>When submitting this form, the result will be opened in a new browser tab:</p>

```
<form action="/action_page.php" target="_blank">
```

First name:<br>

```
<input type="text" name="firstname" value="Mickey">
```

**First name:**

Mickey

**Last name:**

Mouse

**Submit**

#### The target Attribute

When submitting this form, the result will be opened in a new browser tab:

First name:  
Mickey  
Last name:  
Mouse

Submit

```

<br>
Last name:<br>
<input type="text" name="lastname" value="Mouse">
<br><br>
<input type="submit" value="Submit">
</form>
</body>
</html>

```

Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
<i>Framename</i>	Opens the linked document in a named frame

### ឧទាហរណ៍ទាំង៖ Using Form Method

First name:	<input type="text"/>
Last name:	<input type="text"/>
<input type="button" value="Submit"/>	

Click on the submit button, and the form will be submitted using the POST method.

```

<!DOCTYPE html>
<html>
<body>
<form action="/action_page.php" method="post" target="_blank">
First name: <input type="text" name="fname"><br>
Last name: <input type="text" name="lname"><br>
<input type="submit" value="Submit">
</form>
<p>Click on the submit button, and the form will be submitted using the POST
method.</p>
</body>
</html>

```

Value	Description
Get	Default. Appends the form-data to the URL in name/value pairs: URL?name=value&name=value
Post	Sends the form-data as an HTTP post transaction

**Notes on GET:**

- Appends form-data into the URL in name/value pairs
- The length of a URL is limited (**about 3000 characters**)
- Never use GET to send sensitive data! (will be visible in the URL)
- Useful for form submissions where a user want to bookmark the result
- GET is better for non-secure data, like query strings in Google

**Notes on POST:**

- Appends form-data inside the body of the HTTP request (data is not shown in URL)
- Has no size limitations
- Form submissions with POST cannot be bookmarked

**The Name Attribute:**

ក្នុងការ submit Data field នឹមួយៗគូរពេលមាន name បៀវិនដូច្នោះទេ data នឹងមិនត្រូវបាន send ចេញទៀតទៅ

```
<!DOCTYPE html>
<html>
<body>
<h2>The name Attribute</h2>
<form action="/action_page.php">
First name:<br>
<input type="text" value="Mickey">
<br>
Last name:<br>
<input type="text" name="lastname" value="Mouse">
<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>
```

<p>Notice that the value of the "First name" field will not be submitted, because the input element does not have a name attribute.</p>

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

### **Grouping Form Data with <fieldset>:**

The <fieldset> element ត្រូវបានគេប្រើប្រាស់ដើម្បី group related data នៅក្នុង form។

The <legend> element សម្រាប់បង្កើតជា caption ទៅលើ <fieldset> element។

```
<!DOCTYPE html>
<html>
<body>
<h2>Grouping Form Data with Fieldset</h2>
```

<p>The fieldset element is used to group related data in a form, and the legend element defines a caption for the fieldset element.</p>

```
<form action="/action_page.php">
<fieldset>
<legend>Personal information:</legend>
First name:<br>
<input type="text" name="firstname" value="Mickey">
<br>
Last name:<br>
<input type="text" name="lastname" value="Mouse">
<br><br>
<input type="submit" value="Submit">
</fieldset>
```

</form> **Grouping Form Data with Fieldset**

</body> The fieldset element is used to group related data in a form, and the legend element defines a caption for the fieldset element.

A screenshot of a web browser displaying a form. The form has a legend labeled "Personal information:" followed by two input fields. The first input field is labeled "First name:" and contains the value "Mickey". The second input field is labeled "Last name:" and contains the value "Mouse". Below the input fields is a submit button labeled "Submit".

**list of <form> attributes:**

<b>Attribute</b>	<b>Description</b>
accept-charset	Specifies the charset used in the submitted form (default: the page charset).
Action	Specifies an address (url) where to submit the form (default: the submitting page).
Autocomplete	Specifies if the browser should autocomplete the form (default: on).
Enctype	Specifies the encoding of the submitted data (default: is url-encoded).
Method	Specifies the HTTP method used when submitting the form (default: GET).
Name	Specifies a name used to identify the form (for DOM usage: document.forms.name).
Novalidate	Specifies that the browser should not validate the form.
Target	Specifies the target of the address in the action attribute (default: _self).

**Advance HTML Form Elements:**

<b>Tag</b>	<b>Description</b>
<a href="#"><u>&lt;form&gt;</u></a>	Defines an HTML form for user input
<a href="#"><u>&lt;input&gt;</u></a>	Defines an input control
<a href="#"><u>&lt;textarea&gt;</u></a>	Defines a multiline input control (text area)
<a href="#"><u>&lt;label&gt;</u></a>	Defines a label for an <input> element
<a href="#"><u>&lt;fieldset&gt;</u></a>	Groups related elements in a form
<a href="#"><u>&lt;legend&gt;</u></a>	Defines a caption for a <fieldset> element

<a href="#"><u>&lt;select&gt;</u></a>	Defines a drop-down list
<a href="#"><u>&lt;optgroup&gt;</u></a>	Defines a group of related options in a drop-down list
<a href="#"><u>&lt;option&gt;</u></a>	Defines an option in a drop-down list
<a href="#"><u>&lt;button&gt;</u></a>	Defines a clickable button
<a href="#"><u>&lt;datalist&gt;</u></a>	Specifies a list of pre-defined options for input controls(new in HTML5)
<a href="#"><u>&lt;output&gt;</u></a>	Defines the result of a calculation(new in HTML5)

**Using HTML Label Element:**

```
<form action="/action_page.php">
  <label for="male">Male</label>
  <input type="radio" name="gender" id="male" value="male"><br>
  <label for="female">Female</label>
  <input type="radio" name="gender" id="female" value="female"><br>
  <label for="other">Other</label>
  <input type="radio" name="gender" id="other" value="other"><br><br>
  <input type="submit" value="Submit">
</form>
```

**Using HTML Input:**

```
<input name="firstname" type="text">
```

**Input Type Text**

```
<form>
  First name:<br>
  <input type="text" name="firstname"><br>
  Last name:<br>
  <input type="text" name="lastname">
</form>
```

**Input Type Password**

```
<form>
  User name:<br>
```

```
<input type="text" name="username"><br>
User password:<br>
<input type="password" name="psw">
</form>
```

### **Input Type Submit**

```
<form action="/action_page.php">
First name:<br>
<input type="text" name="firstname" value="Mickey"><br>
Last name:<br>
<input type="text" name="lastname" value="Mouse"><br><br>
<input type="submit" value="Submit">
</form>
```

### **Input Type Reset : clear data or reset to default value**

```
<form action="/action_page.php">
First name:<br>
<input type="text" name="firstname" value="Mickey"><br>
Last name:<br>
<input type="text" name="lastname" value="Mouse"><br><br>
<input type="submit" value="Submit">
<input type="reset">
</form>
```

### **Input Type Radio**

```
<form>
<input type="radio" name="gender" value="male" checked> Male<br>
<input type="radio" name="gender" value="female"> Female<br>
<input type="radio" name="gender" value="other"> Other
</form>
```

### **Input Type Checkbox**

```
<form>
<input type="checkbox" name="vehicle1" value="Bike"> I have a bike<br>
<input type="checkbox" name="vehicle2" value="Car"> I have a car
```

```
</form>
```

**Input Type Button**

```
<input type="button" onclick="alert('Hello World!')" value="Click Me!">
```

**Input Type File : upload files**

```
<form>  
  Select a file: <input type="file" name="myFile">  
</form>
```

**HTML5- Input Type Color : a color picker**

```
<form>  
  Select your favorite color:  
  <input type="color" name="favcolor">  
</form>
```

**HTML5-Input Type Date: a date picker(not supported in Safari or Internet Explorer 11 and earlier versions)**

```
<form>  
  Birthday:  
  <input type="date" name="bday">  
</form>  
  
<form>  
  Enter a date before 1980-01-01:  
  <input type="date" name="bday" max="1979-12-31"><br>  
  Enter a date after 2000-01-01:  
  <input type="date" name="bday" min="2000-01-02"><br>  
</form>
```

**HTML5- Input Type Datetime-local : not supported in Firefox, Safari or Internet Explorer 12 and earlier versions**

```
<form>  
  Birthday (date and time):  
  <input type="datetime-local" name="bdaytime">
```

```
</form>
```

**HTML5- Input Type Email : not supported in IE9 and earlier**

```
<form>  
    E-mail:  
    <input type="email" name="email">  
</form>
```

**HTML5- Input Type Month : not supported in Firefox, Safari, or Internet Explorer 11 and earlier versions**

```
<form>  
    Birthday (month and year):  
    <input type="month" name="bdaymonth">  
</form>
```

**HTML5- Input Type Number : not supported in IE9 and earlier**

```
<form>  
    Quantity (between 1 and 5):  
    <input type="number" name="quantity" min="1" max="5">  
</form>
```

**Input Restrictions**

Attribute	Description
Disabled	Specifies that an input field should be disabled
Max	Specifies the maximum value for an input field
Maxlength	Specifies the maximum number of character for an input field
Min	Specifies the minimum value for an input field
Pattern	Specifies a regular expression to check the input value against
Readonly	Specifies that an input field is read only (cannot be changed)

Required	Specifies that an input field is required (must be filled out)
Size	Specifies the width (in characters) of an input field
Step	Specifies the legal number intervals for an input field
Value	Specifies the default value for an input field

**HTML5-Input Type Range : not supported in Internet Explorer 9 and earlier versions**

```
<form>
  <input type="range" name="points" min="0" max="10">
</form>
```

**HTML5- Input Type Search: support all browsers**

```
<form>
  Search Google:
  <input type="search" name="googlesearch">
</form>
```

**HTML5-Input Type Tel : is only supported in Safari 8 and newer versions**

```
<form>
  Telephone:
  <input type="tel" name="usrtel">
</form>
```

**HTML5- Input Type Time : not supported in Safari or Internet Explorer 12 and earlier versions**

```
<form>
  Select a time:
  <input type="time" name="usr_time">
</form>
```

**HTML5- Input Type Url : not supported in IE9 and earlier versions**

```
<form>
```

Add your homepage:

```
<input type="url" name="homepage">
</form>
```

### **HTML5- Input Type Week : not supported in Firefox, Safari or Internet Explorer 11 and earlier versions**

<form>

Select a week:

```
<input type="week" name="week_year">
</form>
```

### **Using <select> = Drop Down list:**

```
<select name="cars">
  <option value="volvo">Volvo</option>
  <option value="saab" >Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

ដើម្បីបញ្ជាញ select លើitem លាងយ

```
<option value="fiat" selected>Fiat</option>
```

ដើម្បីកំណត់នូវទំហំនៃការបង្ហាញនៃ items

```
<select name="cars" size="3">
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

### **Allow Multiple Selections**

```
<select name="cars" size="4" multiple>
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
```

---

```
</select>
```

### **យើងរបស់ <optgroup> tags ដើម្បី group related options**

```
<select>
  <optgroup label="Swedish Cars">
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
  </optgroup>
  <optgroup label="German Cars">
    <option value="mercedes">Mercedes</option>
    <option value="audi">Audi</option>
  </optgroup>
</select>
```

### **Using <textarea> Element:**

```
<textarea name="message" rows="10" cols="30">
The cat was playing in the garden.
</textarea>
```

```
<textarea name="message" style="width:200px; height:600px">
The cat was playing in the garden.
</textarea>
```

### **Using <button> Element:**

```
<button type="button" onclick="alert('Hello World!')>Click Me!</button>
```

### **Using HTML5 <datalist> Element:**

នៅក្នុងបញ្ជីនេះទៅនឹង drop-down list ដើរ។

**<datalist> element ត្រូវបានហើយកន្លែងប្រចាំស៉ែន និង <input> element ដែល list attribute របស់ <input> element ត្រូវតែងឱ្យ id attribute របស់ <datalist> element។**

```
<form action="/action_page.php">
  <input list="browsers">
  <datalist id="browsers">
    <option value="Internet Explorer">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
```

```
</datalist>
```

```
</form>
```

### Using HTML5 <output> Element:

ជាទូទៅប្រើសម្រាប់បង្ហាញលទ្ធផលនៃការគណនា

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

#### The output Element

The output element represents the result of a calculation.

0  100 +  =

**Note:** The output element is not supported in Edge 12 or Internet Explorer and earlier versions.

## The output Element

The output element represents the result of a calculation.

```
<form action="/action_page.php"
```

```
oninput="x.value=parseInt(a.value)+parseInt(b.value)">
```

```
0
```

```
<input type="range" id="a" name="a" value="50">
```

```
100 +
```

```
<input type="number" id="b" name="b" value="50">
```

```
=
```

```
<output name="x"></output>
```

```
<br><br>
```

```
<input type="submit">
```

```
</form>
```

**Note:** The output element is not supported in Edge 12 or Internet Explorer and earlier versions.

```
</body>
```

```
</html>
```

### HTML Input Attribute:

Attribute	Description	Not Support Browser
value	Init the value	
readonly	Cannot update value	
disabled	Un-clickable, and not submit data to server	
size	size (in characters)	

maxlength	maximum allowed length for input	

**HTML5 Input Attribute:**

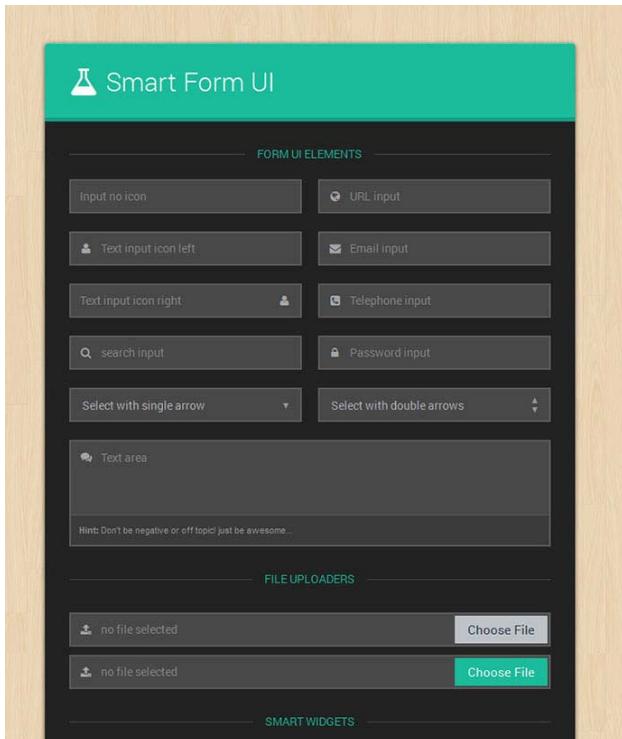
Attribute	Description	Not Support Browser
autocomplete	Use with form or input, value can be [on or off]	
autofocus	Set focus on input field	IE9 and below
form		
formaction	size (in characters)	
formenctype	Can use with type="submit" and type="image" <input type="submit" formenctype="multipart/form-data" value="Submit as Multipart/form-data">	IE9 and below
formmethod	Can use with type="submit" and type="image" <input type="submit" formmethod="post" value="Submit using POST">	IE9 and below
formnovalidate	can be used with type="submit" <input type="submit" formnovalidate value="Submit without validation">	IE9 and below
formtarget	can be used with type="submit" and type="image" <input type="submit" formtarget="_blank" value="Submit to a new window">	IE9 and below
height and width	Use with <input type="image">	All Safari, and IE9 below
list	Drop down list	
min and max	The min and max value use with number, range, date, datetime-local, month, time and week	IE9, IE10 and below
Multiple	Use with input types: email, and file	IE9 and below
pattern (regexp)	Regular expression use with input types: text, search, url, tel, email, and password <input type="text" name="country_code" pattern="[A-Za-z]{3}" title="Three letter country code">	IE9 and below, Safari10 and below
Placeholder	It is such as hint that use with input types: text, search, url, tel, email, and password <input type="text" name="fname" placeholder="First name">	IE9 and below

Required	Require data before submit data. Can use with input types: text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file.  <input type="text" name="username" required>	IE9 and below
Step	Increase or decrease data value in input types: number, range, date, datetime-local, month, time and week.  <input type="number" name="points" step="3">	IE9 and below
novalidate	form data should not be validated when submitted	IE9 , Safafi 10 and below

### លំហាត់ទី១៖ ចូរបង្កើត Form ដឹងទំនាក់ទំនង

The image shows a mobile-style sign-up form. At the top, there is a teal header bar with two buttons: 'Sign Up' on the left and 'Log In' on the right. Below the header, the text 'Sign Up for Free' is centered. The form has four input fields: 'First Name\*' (teal), 'Last Name\*' (grey), 'Email Address\*' (grey), and 'Set A Password\*' (grey). At the bottom is a large teal button labeled 'GET STARTED'.

## លំហាត់ទី២៖ ចូរបង្កើត Form ដៃចាងក្រាម



## លំហាត់ទី៣៖ ចូរបង្កើត Form ដៃចាងក្រាម

The image shows a template for an 'Employment Application' form. The form fields are:

- First name \***
- Last name \***
- Email \***
- Portfolio website**  
http://
- Position you are applying for \***
- Salary requirements**
- When can you start?**
- Phone \***
- Fax**
- Are you willing to relocate?**  
 Yes    No    Not sure
- Last company you worked for**
- Reference / Comments / Questions**

At the bottom, there is a security section with:

- An '@' icon with a circular arrow.
- Enter security code** (input field)
- SECURITY CODE** (displayed as 8YM28)
- Reload Image** (button)
- Send Application** (button)

## លំហាត់ទីផ្សេងៗប្រព័ន្ធឌីជីថល Form ដៃចំណងក្រោម

**Online Order Form**

Fields marked with \* are required.

Full Name *	<input type="text"/>	Street Address <input type="text"/>
Town <input type="text"/>	<input type="text"/>	City <input type="text"/>
Country <input type="text"/>	Post/Zip Code <input type="text"/>	
Telephone *	<input type="text"/>	Email * <input type="text"/>
Item 1 *	<input type="button" value="Please Select"/> Qty <input type="text"/>	Item 2 <input type="button" value="Please Select"/> Qty <input type="text"/>
Item 3 <input type="text"/>	<input type="button" value="Please Select"/> Qty <input type="text"/>	Item 4 <input type="button" value="Please Select"/> Qty <input type="text"/>
Item 5 <input type="text"/>	<input type="button" value="Please Select"/> Qty <input type="text"/>	Item 6 <input type="button" value="Please Select"/> Qty <input type="text"/>
Item 7 <input type="text"/>	<input type="button" value="Please Select"/> Qty <input type="text"/>	Item 8 <input type="button" value="Please Select"/> Qty <input type="text"/>
Item 9 <input type="text"/>	<input type="button" value="Please Select"/> Qty <input type="text"/>	Item 10 <input type="button" value="Please Select"/> Qty <input type="text"/>
Further Instructions <input type="text"/>		
<input type="button" value="Submit Form"/>		

## លំហាត់ទីផ្សេងៗប្រព័ន្ធឌីជីថល Form ដៃចំណងក្រោម

**PRODUCT ORDER FORM**

FIRST NAME : <input type="text" value="Your First Name"/>	LAST NAME : <input type="text" value="Your Last Name"/>
EMAIL ADDRESS : <input type="text" value="Mail@example.com"/>	
PHONE NUMBER : <input type="text" value="+22"/> <input type="text" value="????????"/>	
BILLING ADDRESS : <input type="text" value="Billing Address"/>	
YOUR ADDRESS : <input type="text" value="Your Address"/>	
CITY : <input type="text" value="Your City"/>	STATE/PROVINCE : <input type="text" value="Your State or Province"/>
ZIP CODE : <input type="text" value="Zip Code"/>	COUNTRY : <input type="button" value="Country"/>
<input style="background-color: #0070C0; color: white; border: none; padding: 5px 20px; border-radius: 5px; font-weight: bold; width: fit-content; margin: auto;" type="button" value="PLACE ORDER"/> <input style="background-color: #FFA500; color: black; border: none; padding: 5px 20px; border-radius: 5px; font-weight: bold; width: fit-content; margin: auto;" type="button" value="RESET"/>	

© 2017 Product Order Form. All Rights Reserved | Design by W3layouts

## 1.27. HTML4 vs HTML5 Layout

### HTML5-Semantic/Structural Elements:

Tag	Description
<a href="#"><code>&lt;article&gt;</code></a>	Defines an article in a document
<a href="#"><code>&lt;aside&gt;</code></a>	Defines content aside from the page content
<a href="#"><code>&lt;bdi&gt;</code></a>	Isolates a part of text that might be formatted in a different direction from other text outside it
<a href="#"><code>&lt;details&gt;</code></a>	Defines additional details that the user can view or hide
<a href="#"><code>&lt;dialog&gt;</code></a>	Defines a dialog box or window
<a href="#"><code>&lt;figcaption&gt;</code></a>	Defines a caption for a <code>&lt;figure&gt;</code> element
<a href="#"><code>&lt;figure&gt;</code></a>	Defines self-contained content
<a href="#"><code>&lt;footer&gt;</code></a>	Defines a footer for a document or section
<a href="#"><code>&lt;header&gt;</code></a>	Defines a header for a document or section
<a href="#"><code>&lt;main&gt;</code></a>	Defines the main content of a document
<a href="#"><code>&lt;mark&gt;</code></a>	Defines marked/highlighted text
<a href="#"><code>&lt;meter&gt;</code></a>	Defines a scalar measurement within a known range (a gauge)
<a href="#"><code>&lt;nav&gt;</code></a>	Defines navigation links
<a href="#"><code>&lt;progress&gt;</code></a>	Represents the progress of a task
<a href="#"><code>&lt;rp&gt;</code></a>	Defines what to show in browsers that do not support ruby annotations

<a href="#"><u>&lt;rt&gt;</u></a>	Defines an explanation/pronunciation of characters (for East Asian typography)
<a href="#"><u>&lt;ruby&gt;</u></a>	Defines a ruby annotation (for East Asian typography)
<a href="#"><u>&lt;section&gt;</u></a>	Defines a section in a document
<a href="#"><u>&lt;summary&gt;</u></a>	Defines a visible heading for a <details> element
<a href="#"><u>&lt;time&gt;</u></a>	Defines a date/time
<a href="#"><u>&lt;wbr&gt;</u></a>	Defines a possible line-break

#### HTML5- Form Elements:

Tag	Description
<a href="#"><u>&lt;datalist&gt;</u></a>	Specifies a list of pre-defined options for input controls
<a href="#"><u>&lt;output&gt;</u></a>	Defines the result of a calculation

#### HTML5- Input Types:

New Input Types	New Input Attributes
<ul style="list-style-type: none"> <li>• color</li> <li>• date</li> <li>• datetime</li> <li>• datetime-local</li> <li>• email</li> <li>• month</li> <li>• number</li> <li>• range</li> <li>• search</li> <li>• tel</li> <li>• time</li> <li>• url</li> <li>• week</li> </ul>	<ul style="list-style-type: none"> <li>• autocomplete</li> <li>• autofocus</li> <li>• form</li> <li>• formaction</li> <li>• formenctype</li> <li>• formmethod</li> <li>• formnovalidate</li> <li>• formtarget</li> <li>• height and width</li> <li>• list</li> <li>• min and max</li> <li>• multiple</li> <li>• pattern (regexp)</li> <li>• placeholder</li> <li>• required</li> <li>• step</li> </ul>

**Migration from HTML4 to HTML5:**

<b>Typical HTML4</b>	<b>Typical HTML5</b>
<div id="header">	<header>
<div id="menu">	<nav>
<div id="content">	<section>
<div class="article">	<article>
<div id="footer">	<footer>

ឧទាហរណ៍៖ HTML4 Layout

The screenshot shows a website layout with the following structure:

- Header:** A black bar at the top containing the title "Monday Times". Below it are links for "News", "Sports", and "Weather".
- Section:** A grey box labeled "News Section" containing two "News Article" blocks.
- Article Content:** Each "News Article" block contains placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at." and "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at."
- Footer:** A black bar at the bottom containing the copyright notice "© 2018 Monday Times. All rights reserved."

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<html lang="en">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8">
    <title>HTML4</title>
    <style>
      body {
        font-family: Verdana,sans-serif;
        font-size: 0.9em;
      }
    </style>
  </head>
  <body>
    <div id="header"></div>
    <div id="menu"></div>
    <div id="content"></div>
    <div class="article"></div>
    <div id="footer"></div>
  </body>
</html>

```

{

```
div#header, div#footer {  
    padding: 10px;  
    color: white;  
    background-color: black;  
}
```

```
div#content {  
    margin: 5px;  
    padding: 10px;  
    background-color: lightgrey;  
}
```

```
div.article {  
    margin: 5px;  
    padding: 10px;  
    background-color: white;  
}
```

```
div#menu ul {  
    padding: 0;  
}
```

```
div#menu ul li {  
    display: inline;  
    margin: 5px;  
}
```

```
</style>  
</head>  
<body>
```

```
<div id="header">  
<h1>Monday Times</h1>  
</div>
```

```
<div id="menu">
<ul>
<li>News</li>
<li>Sports</li>
<li>Weather</li>
</ul>
</div>

<div id="content">
<h2>News Section</h2>
<div class="article">
<h2>News Article</h2>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>
</div>
<div class="article">
<h2>News Article</h2>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>
</div>
</div>

<div id="footer">
<p>&copy; 2014 Monday Times. All rights reserved.</p>
</div>

</body>
</html>
```

**HTML5Shiv** គឺជា JavaScript ដែលធ្វើឡើង browser IE ដែលមាន version ទាំង ជាង Version 9 អាចស្ថាប់ styling របស់ HTML5 elements មានដ៏ចងកុម្ភ `<article>, <section>, <aside>, <nav>, <footer>....`

ដើម្បីទាញយករាយកប្រើគេហទ័រអនុញ្ញាតផ្សេងៗ

ទី១៖ download ពី <https://github.com/aFarkas/html5shiv>

បន្ទាប់មក copy file ២(dist/html5shiv.js និង dist/html5shiv-printshiv.js) យកទៅដាក់ក្នុង project របស់អ្នក វិញ include file មួយណាក់ចានចូលទៅក្នុង head នៃ HTML ដូចខាងក្រោម៖

```
<!--[if lt IE 9]>
<script src="bower_components/html5shiv/dist/html5shiv.js"></script>
<![endif]-->
```

ទី២៖ បើអ្នកមិនចង់ download ទេអ្នកអាច linkទៅកាន់ HTML5Shivតាមរយៈ CDN site ខាងក្រោម

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<!--[if lt IE 9]>
<script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
<![endif]-->
</head>
<body>
```

**HTML5 <section> Element៖** យើងអាចប្រើវាដើម្បី grouping លើ content បុរីបំបែកជាដឹក។  
ធ្វើនៅត្រូវដូចជា introduction, content, and contact information...។

```
<section>
<h1>WWF</h1>
<p>The World Wide Fund for Nature (WWF) is....</p>
</section>
```

**HTML5 <article> Element៖** [នូវដោះស្រាយទៅនឹង <section> ដែរ ហើយគេចូលរួមប្រើក្នុងទំន់តា Forum post, Blog post, Newspaper article។

```
<article>
```

```
<h1>What Does WWF Do?</h1>
```

<p>WWF's mission is to stop the degradation of our planet's natural environment, and build a future in which humans live in harmony with nature.</p>

```
</article>
```

**HTML5 <header> Element**: ស្រួលដៃអត្ថាគន្លឹន <section> ដែរ ហើយគេប្រើប្រាស់ជា container នៃ introductory content។

```
<article>
```

```
<header>
```

```
<h1>What Does WWF Do?</h1>
```

```
<p>WWF's mission:</p>
```

```
</header>
```

<p>WWF's mission is to stop the degradation of our planet's natural environment, and build a future in which humans live in harmony with nature.</p>

```
</article>
```

**HTML5 <footer> Element**: ស្រួលដៃអត្ថាគន្លឹន <section> ដែរ តែតែប្រើប្រាស់ជីវិតកន្លែង ព័ត៌មានផ្ទុចជា author of the document, copyright information, links to terms of use, contact information, etc.

```
<footer>
```

```
<p>Posted by: Hege Refsnes</p>
```

```
<p>Contact information: <a href="mailto:someone@example.com">  
someone@example.com</a>.</p>
```

```
</footer>
```

**HTML5 <nav> Element**: ស្រួលដៃអត្ថាគន្លឹន <section> ដែរ ហើយគេប្រើប្រាស់ជីវិតកន្លែង navigation links។

```
<nav>
```

```
<a href="/html/">HTML</a> |
```

```
<a href="/css/">CSS</a> |
```

```
<a href="/js/">JavaScript</a> |
```

```
<a href="/jquery/">jQuery</a>
```

```
</nav>
```

**HTML5 <aside> Element** សម្រាប់បង្កើតគ្មានីង <section> ដែរ ហើយគេប្រើបានជាសម្រាប់ជាផ្លូវការជាអនុគមន៍ទៅក្នុងក្រុងក្រឡាតាំង។

<p>My family and I visited The Epcot center this summer.</p>

```
<aside>
  <h4>Epcot Center</h4>
  <p>The Epcot Center is a theme park in Disney World, Florida.</p>
</aside>
```

**HTML5 <figure> and <figcaption> Elements** សម្រាប់បង្កើតគ្មានីង <section> ដែរ ហើយគេប្រើបានជាសម្រាប់ជាផ្លូវការជាអនុគមន៍ទៅក្នុងក្រុងក្រឡាតាំង។

```
<figure>
  
  <figcaption>Fig1. - Trulli, Puglia, Italy.</figcaption>
</figure>
```

## ឧទាហរណ៍ទៅ HTML5 Layout

The screenshot shows a responsive news website layout. At the top, there's a dark header bar with the title "Monday Times". Below it, a navigation bar includes links for "News", "Sports", and "Weather". The main content area is divided into two columns. The left column is labeled "News Section" and contains a "News Article" block. The right column also contains a "News Article" block. Both article blocks contain placeholder text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at." and "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.". At the bottom of the page, there's a footer bar with the copyright notice "© 2018 Monday Times. All rights reserved."

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
```

```
<title>HTML5</title>
<!--[if lt IE 9]>
<script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
</script>
<![endif]-->
<style>
body {
    font-family: Verdana,sans-serif;
    font-size: 0.9em;
}

header, footer {
    padding: 10px;
    color: white;
    background-color: black;
}

section {
    margin: 5px;
    padding: 10px;
    background-color: lightgrey;
}

article {
    margin: 5px;
    padding: 10px;
    background-color: white;
}

nav ul {
    padding: 0;
}

nav ul li {
    display: inline;
```

```
margin: 5px;  
}  
</style>  
</head>  
<body>  
  
<header>  
<h1>Monday Times</h1>  
</header>  
  
<nav>  
<ul>  
<li>News</li>  
<li>Sports</li>  
<li>Weather</li>  
</ul>  
</nav>  
  
<section>  
<h2>News Section</h2>  
<article>  
<h2>News Article</h2>  
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem.  
Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>  
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem.  
Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>  
</article>  
<article>  
<h2>News Article</h2>  
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem.  
Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>  
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem.  
Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>  
</article>  
</section>
```

```

<footer>
<p>&copy; 2018 Monday Times. All rights reserved.</p>
</footer>

</body>
</html>

```

### 1.28. HTML Graphic

HTML <canvas> element: ត្រូវបានគេប្រើដើម្បី draw graphics លើ web page។ យើងអាចធ្វើរាជក្រឹតា red rectangle, a gradient rectangle, a multicolor rectangle, and a multicolor text។



Browser Support

Element					
<canvas>	4.0	9.0	2.0	3.1	9.0

ឧទាហរណ៍៖

```

<!DOCTYPE html>
<html>
<body>

<canvas id="myCanvas" width="200" height="100"
style="border:1px solid #000000;">
Your browser does not support the HTML5 canvas tag.
</canvas>

</body>
</html>

```



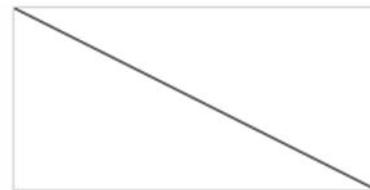
Draw Line:

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

<canvas id="myCanvas" width="200" height="100"
style="border:1px solid #d3d3d3;">
Your browser does not support the HTML5 canvas tag.
</canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
ctx.moveTo(0,0);
ctx.lineTo(200,100);
ctx.stroke();
</script>

</body>
</html>
```



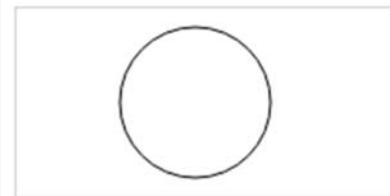
### Draw a Circle:

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

<canvas id="myCanvas" width="200"
height="100" style="border:1px solid
#d3d3d3;">
Your browser does not support the HTML5
canvas tag.</canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
ctx.beginPath();
ctx.arc(95,50,40,0,2*Math.PI);
ctx.stroke();
</script>

</body>
</html>
```



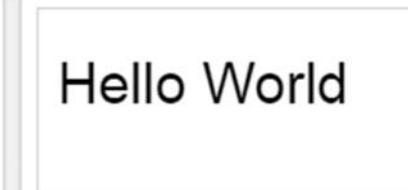
**Draw a Text:**

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

<canvas id="myCanvas" width="200"
height="100" style="border:1px solid
#d3d3d3;">
Your browser does not support the HTML5
canvas tag.</canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
ctx.font = "30px Arial";
ctx.fillText("Hello World",10,50);
</script>

</body>
</html>
```



Hello World

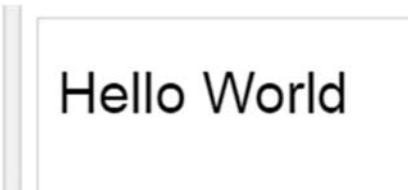
**Stroke Text:**

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

<canvas id="myCanvas" width="200"
height="100" style="border:1px solid
#d3d3d3;">
Your browser does not support the HTML5
canvas tag.</canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
ctx.font = "30px Arial";
ctx.fillText("Hello World",10,50);
</script>

</body>
</html>
```



Hello World

**Draw Linear Gradient:**

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

<canvas id="myCanvas" width="200" height="100"
style="border:1px solid #d3d3d3;">
Your browser does not support the HTML5 canvas
tag.</canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
// Create gradient
var grd = ctx.createLinearGradient(0,0,200,0);
grd.addColorStop(0,"red");
grd.addColorStop(1,"white");
// Fill with gradient
ctx.fillStyle = grd;
ctx.fillRect(10,10,150,80);
</script>

</body>
</html>
```

**Draw Circular Gradient:**

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

<canvas id="myCanvas" width="200" height="100"
style="border:1px solid #d3d3d3;">
Your browser does not support the HTML5 canvas tag.
</canvas>

<script>
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");

// Create gradient
var grd = ctx.createRadialGradient(75,50,5,90,60,100);
grd.addColorStop(0,"red");
grd.addColorStop(1,"white");

// Fill with gradient
ctx.fillStyle = grd;
ctx.fillRect(10,10,150,80);
</script>

</body>
</html>
```



**Draw Image:**

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

<p>Image to use:</p>


<p>Canvas to fill:</p>
<canvas id="myCanvas" width="250" height="300"
style="border:1px solid #d3d3d3;">
Your browser does not support the HTML5 canvas tag.</canvas>

<p><button onclick="myCanvas()">Try it</button></p>

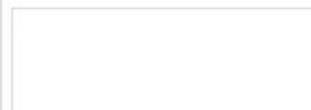
<script>
function myCanvas() {
    var c = document.getElementById("myCanvas");
    var ctx = c.getContext("2d");
    var img = document.getElementById("scream");
    ctx.drawImage(img,10,10);
}
</script>

</body>
</html>
```

Image to use:



Canvas to fill:

**HTML5 SVG:** ប្រព័ន្ធមួយទេរតន់ graphic តិះ <svg>

- SVG= Scalable Vector Graphics
- SVG ប្រើសម្រាប់ define graphics លើ Web
- SVG តិះជា W3C recommendation

**Browser Support:**

Element	Chrome	Edge	Firefox	Opera	IE
<svg>	4.0	9.0	3.0	3.2	10.1

**SVG Circle:**

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

<svg width="100" height="100">
    <circle cx="50" cy="50" r="40"
    stroke="green" stroke-width="4" fill="yellow" />
    Sorry, your browser does not support inline SVG.
</svg>

</body>
</html>
```



**SVG Rectangle:**

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

<svg width="400" height="100">
  <rect width="400" height="100"
    style="fill:rgb(0,0,255);stroke-
width:10;stroke:rgb(0,0,0)" />
Sorry, your browser does not support inline SVG.
</svg>

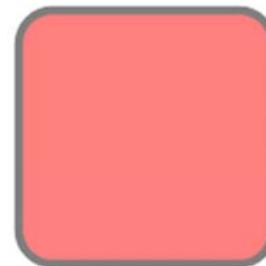
</body>
</html>
```

**SVG Rounded Rectangle:**

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

<svg width="400" height="180">
  <rect x="50" y="20" rx="20" ry="20" width="150"
height="150"
    style="fill:red;stroke:black;stroke-
width:5;opacity:0.5" />
Sorry, your browser does not support inline SVG.
</svg>

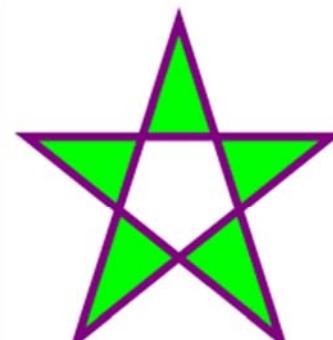
</body>
</html>
```

**SVG Star:**

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

<svg width="300" height="200">
  <polygon points="100,10 40,198 190,78 10,78
160,198"
    style="fill:lime;stroke:purple;stroke-
width:5;fill-rule:evenodd;" />
Sorry, your browser does not support inline SVG.
</svg>

</body>
</html>
```



**SVG Logo:**

```

<!DOCTYPE html>
<html>
<body>

<svg height="130" width="500">
<defs>
  <linearGradient id="grad1" x1="0%" y1="0%" x2="100%" y2="0%">
    <stop offset="0%" style="stop-color:rgb(255,255,0);stop-opacity:1" />
    <stop offset="100%" style="stop-color:rgb(255,0,0);stop-opacity:1" />
  </linearGradient>
</defs>
<ellipse cx="100" cy="70" rx="85" ry="55" fill="url(#grad1)" />
<text fill="#ffffff" font-size="45" font-family="Verdana" x="50" y="86">SVG</text>
Sorry, your browser does not support inline SVG.
</svg>

</body>
</html>

```

**Comparison of Canvas and SVG:**

Canvas	SVG
<ul style="list-style-type: none"> <li>• Resolution dependent</li> <li>• No support for event handlers</li> <li>• Poor text rendering capabilities</li> <li>• You can save the resulting image as .png or .jpg</li> <li>• Well suited for graphic-intensive games</li> </ul>	<ul style="list-style-type: none"> <li>• Resolution independent</li> <li>• Support for event handlers</li> <li>• Best suited for applications with large rendering areas (Google Maps)</li> <li>• Slow rendering if complex (anything that uses the DOM a lot will be slow)</li> <li>• Not suited for game applications</li> </ul>

**HTML Google Maps:** សម្រាប់បង្ហាញ google map លើ web page

បង្កើត `<div>` block សម្រាប់ដាក់map

```
<div id="map">My map will go here</div>
```

កំណត់ map size

```
<div id="map" style="width:400px;height:400px">
```

បង្កើត Function ដើម្បីកំណត់ Map Properties

```
function myMap() {
```

```
  var mapOptions = {
```

```
    center: new google.maps.LatLng(51.5, -0.12),
```

```

    zoom: 10,
    mapTypeId: google.maps.MapTypeId.HYBRID
}
var map = new google.maps.Map(document.getElementById("map"), mapOptions);
}



- The mapOptions variable defines the properties for the map.
- The center property specifies where to center the map (using latitude and longitude coordinates).
- The zoom property specifies the zoom level for the map (try to experiment with the zoom level).
- The mapTypeId property specifies the map type to display. The following map types are supported: ROADMAP, SATELLITE, HYBRID, and TERRAIN.
- The line: var map=new google.maps.Map(document.getElementById("map"), mapOptions); creates a new map inside the <div> element with id="map", using the parameters that are passed (mapOptions).

```

### ទាញយក Google Maps API:

```
<script src="https://maps.googleapis.com/maps/api/js?callback=myMap"></script>
```

### ចំណាំ

- functionality នៃ API នេះត្រូវបានបង្កើតនឹងត្រប់ត្រងដោយក្រុមហ៊ុន google។
- ដើម្បីប្រើ google map ត្រូវទៅទាញយក API key ពី <https://code.google.com/apis/console/>

Secure | https://console.cloud.google.com/apis/credentials?project=api-project-960830056962

Sign up for a free trial and you'll get \$300 in credit and 12 months to explore Google Cloud Platform. [Learn more](#)

Google Cloud Platform API Project

API keys			
Name	Creation date	Restrictions	Key
HTTP_API_key	Aug 19, 2018	HTTP referrers	AlzaSyB7...UyYwn0AU1ZZ5Y2JB4uyU
Browser key 1	Sep 11, 2013	None	AlzaSyD4...n8F7rcisYRlnUfVN4-E8

### ឧទាហរណ៍៖

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

```
<body>
```

```
<h1>My First Google Map</h1>
```

```
<div id="map" style="width:400px;height:400px;background:yellow"></div>
```

```
<script>
```

```
function myMap() {
```

```
var mapOptions = {
```

```
center: new google.maps.LatLng(51.5, -0.12),
```

```
zoom: 10,
```

```
mapTypeId: google.maps.MapTypeId.HYBRID
```

```
}
```

```
var map = new google.maps.Map(document.getElementById("map"), mapOptions);
```

```
}
```

```
</script>
```

```
<script
```

```
src="https://maps.googleapis.com/maps/api/js?key=AIscnPftx3Yh8F7rcisYRInUfVN4-E8&callback=myMap"></script>
```

```
<!--
```

```
To use this code on your website, get a free API key from Google.
```

```
Read more at: https://www.w3schools.com/graphics/google\_maps\_basic.asp
```

```
-->
```

```
</body>
```

```
</html>
```

ដើម្បីសរុបទំនួមពី SVG, Canval, និង google map សូមចូលទៅកាន់ link ខាងក្រោម៖

<https://www.w3schools.com/graphics/default.asp>

## 1.29. HTML APIs

លោកអ្នកនឹងសិក្សាតីរបៀបប្រើប្រាស់នូវ APIs ធ្វើដំណឹង HTML ដែចខាងក្រោម៖

**HTML5 Geolocation API**: get the geographical position of a user

គេប្រើប្រាស់ការអមពិនិត្យ device ដែលមាន GPS ដូចជា Iphone ឬដើម្បីយកអាជីថាប់ទីតាំងរបស់អ្នកបានលើស្រាវអនុញ្ញាតឱ្យ access location នៃ device នេះ។

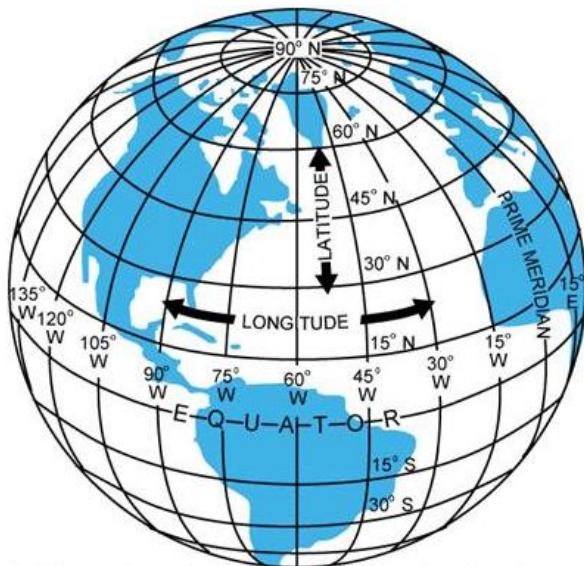
**Browser Support:** version នៃ browser ដែល support api នេះ:

API					
Geolocation	5.0 - 49.0 (http) 50.0 (https)	9.0	3.5	5.0	16.0

**Note:** As of Chrome 50, the Geolocation API will only work on secure contexts such as HTTPS. If your site is hosted on an non-secure origin (such as HTTP) the requests to get the users location will no longer function.

### Using HTML Geolocation:

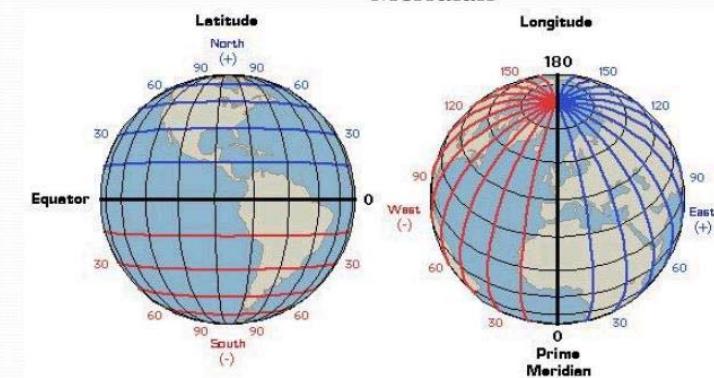
getCurrentPosition() method: នាមអនុគមន៍ដែល return មកវិញនូវការផ្លូវ user's position។



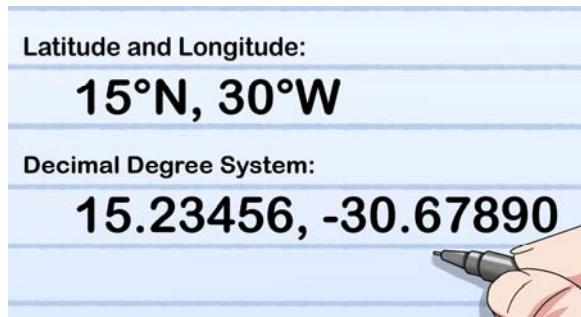
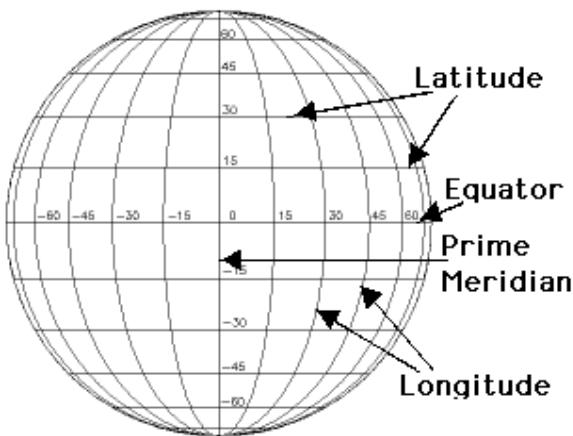
### LATITUDE vs. LONGITUDE

- LATITUDE measures distance NORTH and SOUTH of the EQUATOR

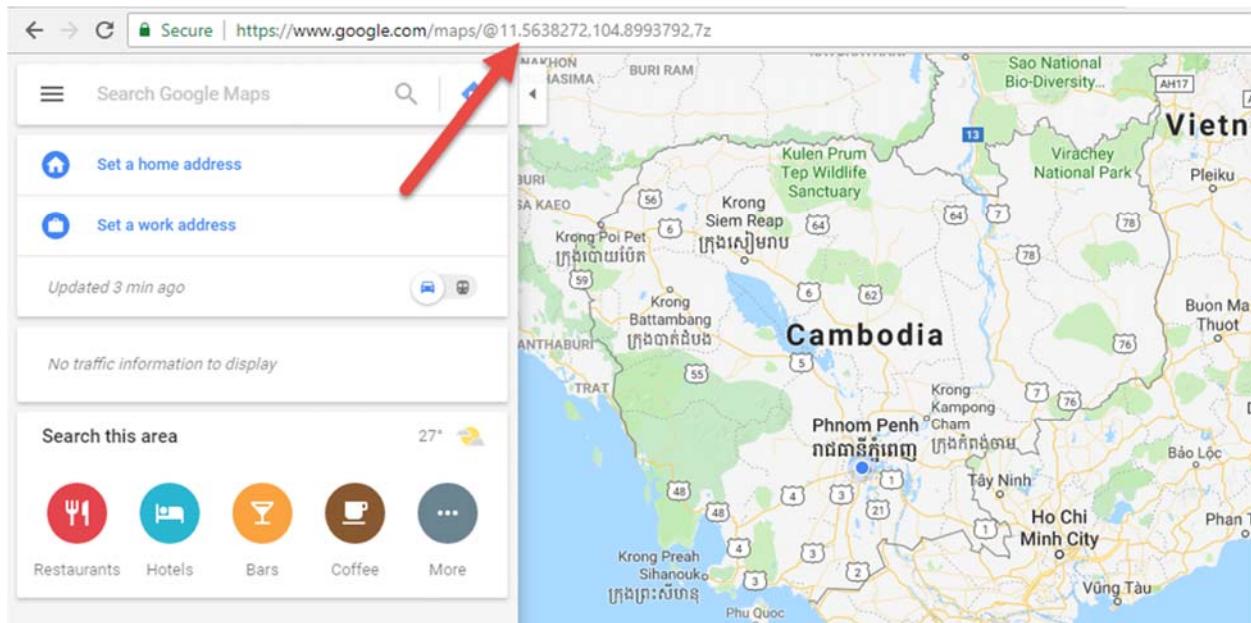
Longitude measures distance EAST and WEST of the Prime Meridian



វិធីការស្ថើដំឡើត Latitude & Longitude



យើងក៏អាចចូលទៅម៉ោងទីតាំងរបស់យើងបានរយៈ: google map



ខាងក្រោមនេះជាដំឡើតគ្រប់ទាញយក current location/position

```
<!DOCTYPE html>
<html>
<body>
<p>Click the button to get your coordinates.</p>
<button onclick="getLocation()">Try It</button>
<p id="demo"></p>

<script>
var x = document.getElementById("demo");
```

```

function getLocation() {
    if (navigator.geolocation) {
        navigator.geolocation.getCurrentPosition(showPosition);
    } else {
        x.innerHTML = "Geolocation is not supported by this browser.";
    }
}

function showPosition(position) {
    x.innerHTML = "Latitude: " + position.coords.latitude +
    "<br>Longitude: " + position.coords.longitude;
}
</script>

```

**Click the button to get your coordinates.**

**Try It**

</body>

</html>

**Latitude: 11.563**

ଟ୍ରେଜ୍‌ମେଲ୍ କୋଡ୍ସ

**Longitude: 104.915**

- Check if Geolocation is supported
- If supported, run the getCurrentPosition() method. If not, display a message to the user
- If the getCurrentPosition() method is successful, it returns a coordinates object to the function specified in the parameter (showPosition)
- The showPosition() function outputs the Latitude and Longitude

### Handling Errors and Rejections: ପରେଇଥିବା କୋଡ୍ ଫେଲ୍‌ଟାର୍ ଏର୍ରୋର

```

<!DOCTYPE html>
<html>
<body>
<p>Click the button to get your coordinates.</p>
<button onclick="getLocation()">Try It</button>
<p id="demo"></p>

<script>
var x = document.getElementById("demo");
function getLocation() {
    if (navigator.geolocation) {
        navigator.geolocation.getCurrentPosition(showPosition, showError);
    }
}

function showPosition(position) {
    x.innerHTML = "Latitude: " + position.coords.latitude +
    "<br>Longitude: " + position.coords.longitude;
}

function showError(error) {
    x.innerHTML = "Sorry, unable to find your location";
}

```

```
        } else {  
            x.innerHTML = "Geolocation is not supported by this browser.";  
        }  
    }  
  
    function showPosition(position) {  
        x.innerHTML = "Latitude: " + position.coords.latitude +  
        "<br>Longitude: " + position.coords.longitude;  
    }  
  
    function showError(error) {  
        switch(error.code) {  
            case error.PERMISSION_DENIED:  
                x.innerHTML = "User denied the request for Geolocation."  
                break;  
            case error.POSITION_UNAVAILABLE:  
                x.innerHTML = "Location information is unavailable."  
                break;  
            case error.TIMEOUT:  
                x.innerHTML = "The request to get user location timed out."  
                break;  
            case error.UNKNOWN_ERROR:  
                x.innerHTML = "An unknown error occurred."  
                break;  
        }  
        Click the button to get your coordinates.  
    }  
    </script>  
    </body>      Latitude: 11.56382719999999  
    </html>      Longitude: 104.8993792
```

**Try It**

### Displaying the Result in a Map

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

```
<p id="demo">Click the button to get your position.</p>
<button onclick="getLocation()">Try It</button>
<div id="mapholder"></div>

<script>
var x = document.getElementById("demo");
function getLocation() {
    if (navigator.geolocation) {
        navigator.geolocation.getCurrentPosition(showPosition, showError);
    } else {
        x.innerHTML = "Geolocation is not supported by this browser.";
    }
}

function showPosition(position) {
    var latlon = position.coords.latitude + "," + position.coords.longitude;
    var img_url = "https://maps.googleapis.com/maps/api/staticmap?center="
        +latlon+"&zoom=14&size=400x300&key=AIzaSyBu-
916DdpKAjTmJNlgnS6HL_kDIKU0aU";
    document.getElementById("mapholder").innerHTML = "<img src='"+img_url+"'>";
}
//To use this code on your website, get a free API key from Google.

//Read more at: https://www.w3schools.com/graphics/google_maps_basic.asp

function showError(error) {
    switch(error.code) {
        case error.PERMISSION_DENIED:
            x.innerHTML = "User denied the request for Geolocation."
            break;
        case error.POSITION_UNAVAILABLE:
            x.innerHTML = "Location information is unavailable."
            break;
        case error.TIMEOUT:
            x.innerHTML = "The request to get user location timed out."
    }
}
```

```

break;

case error.UNKNOWN_ERROR:
    x.innerHTML = "An unknown error occurred."
    break;
}

}
</script>

```

&lt;/body&gt;

&lt;/html&gt;

Click the button to get your position.



### The getCurrentPosition() Method - Return Data:

Property	Returns
coords.latitude	The latitude(រូប៊ី:ទឹកីត្តិថ្លែង) as a decimal number (always returned)
coords.longitude	The longitude(រូប៊ី:បណ្តុះបណ្តាល) as a decimal number (always returned)
coords.accuracy	The accuracy(តែខ្សោយត្រួតពិន្ទុ) of position (always returned)
coords.altitude	The altitude(រូប៊ី:កម្រិតស្តី) in meters above the mean sea level (returned if available)
coords.altitudeAccuracy	The altitude accuracy of position (returned if available)
coords.heading	The heading as degrees clockwise from North (returned if available)

coords.speed	The speed in meters per second (returned if available)
Timestamp	The date/time of the response (returned if available)

### Geolocation Object - Other interesting Methods

- **watchPosition()** - Returns the current position of the user and continues to return updated position as the user moves (like the GPS in a car).
- **clearWatch()** - Stops the watchPosition() method.
- **ដើម្បី test អនុកមន់នេះអ្នកត្រូវប្រើ GPS device(ex: Iphone)**

ឧទាហរណ៍

```
<!DOCTYPE html>
<html>
<body>
<p>Click the button to get your coordinates.</p>
<button onclick="getLocation()">Try It</button>
<p id="demo"></p>
<script>
var x = document.getElementById("demo");
function getLocation() {
    if (navigator.geolocation) {
        navigator.geolocation.watchPosition(showPosition);
    } else {
        x.innerHTML = "Geolocation is not supported by this browser.";
    }
}
function showPosition(position) {
    x.innerHTML="Latitude: " + position.coords.latitude +
    "<br>Longitude: " + position.coords.longitude;
}
</script>
</body>
</html>
```

Click the button to get your coordinates.

Latitude: 11.563827199999999  
Longitude: 104.8993792

**HTML5 Drag and Drop API:**

មានន័យថា ចាប់ទាញ ទំលាក់ចូល

**Browser Support:** first version that support

API					
Drag and Drop	4.0	9.0	3.5	6.0	12.0

**Make an Element Draggable:**

```
<img draggable="true">
```

**What to Drag - ondragstart and setData():** មានអ្នកកែតទូរដឹងនៃ element ត្រូវបាន drag ។ ឧបាទរណីថា event ondragstart ត្រូវបានដំណើរការនៅពេល call function ណាយឱ្យ: drag(event) បន្ទាប់មកប្រើ dataTransfer.setData() method ដើម្បី set ពីផ្លូវ data type និង value របស់ dragged data ៖

```
function drag(ev) {
    ev.dataTransfer.setData("text", ev.target.id);
}
```

ចំណាំ៖ data type is "text" and the value is the id of the draggable element ("drag1")

**Where to Drop - ondragover:**

- The ondragover event specifies where the dragged data can be dropped.
- By default, data/elements cannot be dropped in other elements. To allow a drop, we must prevent the default handling of the element.
- This is done by calling the event.preventDefault() method for the ondragover event: event.preventDefault()

**Do the Drop - ondrop:**

When the dragged data is dropped, a drop event occurs.

the ondrop attribute calls a function, drop(event):

```
function drop(ev) {
    ev.preventDefault();
    var data = ev.dataTransfer.getData("text");
    ev.target.appendChild(document.getElementById(data));
}
```

**ឧបាទរណី៖**

```
<!DOCTYPE HTML>
```

```
<html>
```

```
<head>
```

Drag the W3Schools image into the rectangle:

```
<style>
```

```
#div1 {
```

```
    width: 350px;
```

```
    height: 70px;
```

```
    padding: 10px;
```

```
    border: 1px solid #aaaaaa;
```

```
}
```

```
</style>
```

```
<script>
```

```
function allowDrop(ev) {
```

```
    ev.preventDefault();
```

```
}
```

```
function drag(ev) {
```

```
    ev.dataTransfer.setData("text", ev.target.id);
```

```
}
```

```
function drop(ev) {
```

```
    ev.preventDefault();
```

```
    var data = ev.dataTransfer.getData("text");
```

```
    ev.target.appendChild(document.getElementById(data));
```

```
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<p>Drag the W3Schools image into the rectangle:</p>
```

```
<div id="div1" ondrop="drop(event)" ondragover="allowDrop(event)"></div>
```

```
<br>
```

```

```

```
</body>
```

```
</html>
```



ଇତ୍ତାରିକ୍ଷଣ:

```
<!DOCTYPE HTML>
<html>
<head>
<style>
#div1, #div2 {
    float: left;
    width: 100px;
    height: 35px;
    margin: 10px;
    padding: 10px;
    border: 1px solid black;
}
</style>
<script>
function allowDrop(ev) {
    ev.preventDefault();
}

function drag(ev) {
    ev.dataTransfer.setData("text", ev.target.id);
}

function drop(ev) {
    ev.preventDefault();
    var data = ev.dataTransfer.getData("text");
    ev.target.appendChild(document.getElementById(data));
}
</script>
</head>
<body>
```

**Drag and Drop**

Drag the image back and forth between the two div elements.

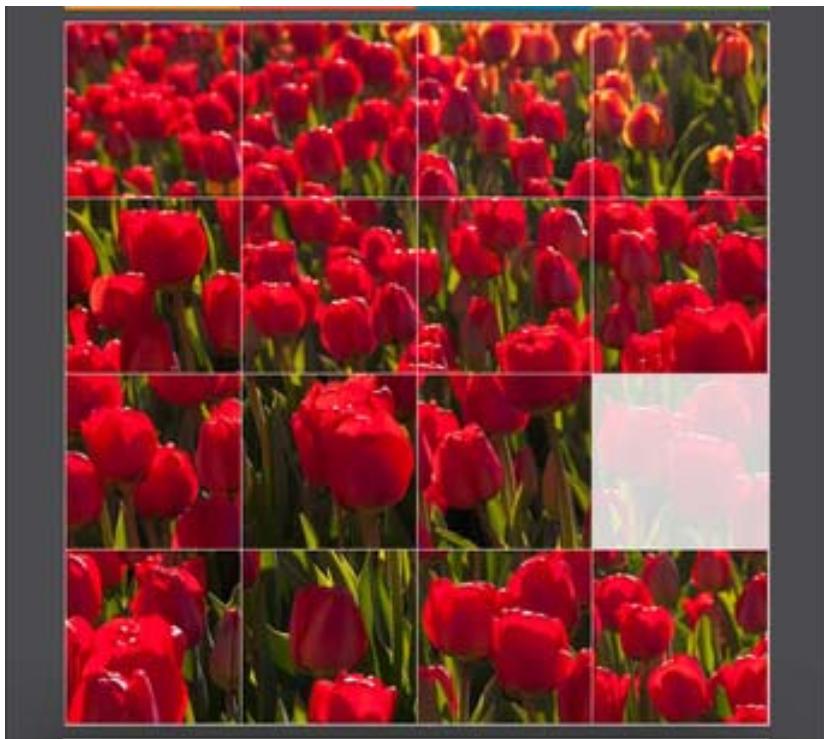


<h2>Drag and Drop</h2>

<p>Drag the image back and forth between the two div elements.</p>

```
<div id="div1" ondrop="drop(event)" ondragover="allowDrop(event)">  
      
</div>  
<div id="div2" ondrop="drop(event)" ondragover="allowDrop(event)"></div>  
</body>  
</html>
```

### លំហាត់: Puzzle Game



### HTML5 Web Storage API:

**Web Storage API:** គឺជា web app ដែលអាច store ទិន្នន័យ local លើ web's browser។

យើងអាចប្រើប្រាស់ web storage ដំនឹងសម្រាប់ cookies បាន។

Cookies អាចរក្សាទុកទិន្នន័យបានពេលបានពីចាប់ដាន យើងអាចបញ្ជីកូនុយទៅ server តាម request។

ចំណែកដែលគឺជាការរក្សាទុកទិន្នន័យបានធ្វើនៅលើកម្មវិធី (រហូតដល់ 5Mb) មានសុវត្ថភាពជាងលើកដែលមិនបានពិនិត្យឡើងដោយ server និងមិនបែងបានលើកម្មវិធី។

**Browser Support:** first version that support

API					
Web Storage	4.0	8.0	3.5	4.0	11.5

HTML web storage ផ្តល់នូវ object ពីរសំខាន់ខាងក្រោម៖

- **window.localStorage** - stores data with no expiration date
- **window.sessionStorage** - stores data for one session (data is lost when the browser tab is closed)

ដើម្បីត្រួតពិនិត្យថាគារណ៍ទាំងនេះមានការគ្រប់គ្រងនៅក្នុងប្រព័ន្ធដែលបានបង្កើតឡើង។

```
if (typeof(Storage) !== "undefined") {
    // Code for localStorage/sessionStorage.
} else {
    // Sorry! No Web Storage support..
}
```

#### **localStorage Object:** Add Item

```
// Store
localStorage.setItem("varname", "value");
// Retrieve
document.getElementById("result").innerHTML = localStorage.getItem("varname");
```

ឬ

```
// Store
localStorage.varname = "Smith";
// Retrieve
document.getElementById("result").innerHTML = localStorage.varname;
```

#### **localStorage Object:** Remove Item

```
localStorage.removeItem("varname");
```

#### **ឧទាហរណ៍១:** ការប្រើប្រាស់ localStorage

```
<!DOCTYPE html>
```

```

<html>
  <head>
    <script>
      function clickCounter() {
        if(typeof(Storage) !== "undefined") {
          if (localStorage.clickcount) {
            localStorage.clickcount = Number(localStorage.clickcount)+1;
          } else {
            localStorage.clickcount = 1;
          }
          document.getElementById("result").innerHTML = "You have clicked the button " +
          localStorage.clickcount + " time(s).";
        } else {
          document.getElementById("result").innerHTML = "Sorry, your browser does not
          support web storage...";
        }
      }
    </script>
  </head>
  <body>
    <p><button onclick="clickCounter()" type="button">Click me!</button></p>
    <div id="result"></div>
    <p>Click the button to see the counter increase.</p>
    <p>Close the browser tab (or window), and try again, and the counter will continue to
    count (is not reset).</p>
  </body>
</html>

```

### ឧទាហរណ៍ទី២: ការប្រើប្រាស់ sessionStorage

```

<!DOCTYPE html>
<html>
  <head>
    <script>
      function clickCounter() {
        if(typeof(Storage) !== "undefined") {

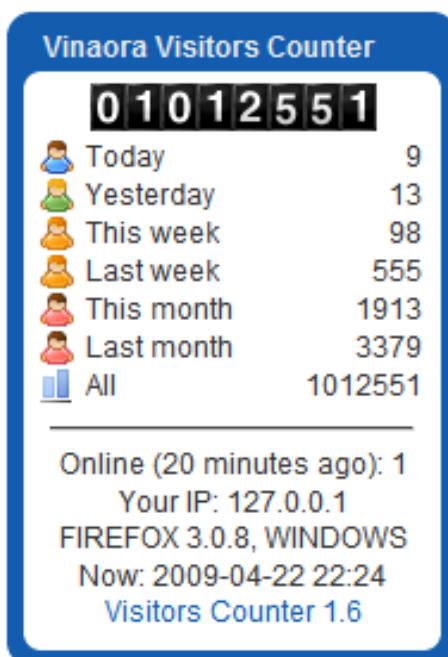
```

```

if (sessionStorage.clickcount) {
    sessionStorage.clickcount = Number(sessionStorage.clickcount)+1;
} else {
    sessionStorage.clickcount = 1;
}
document.getElementById("result").innerHTML = "You have clicked the button " +
sessionStorage.clickcount + " time(s) in this session.";
} else {
    document.getElementById("result").innerHTML = "Sorry, your browser does not
support web storage...";
}
}
</script>
</head>
<body>
<p><button onclick="clickCounter()" type="button">Click me!</button></p>
<div id="result"></div>
<p>Click the button to see the counter increase.</p>
<p>Close the browser tab (or window), and try again, and the counter is reset.</p>
</body>
</html>

```

**លំបាត់ទៅបង្កើត Count Visitor Page**



### HTML5 Web Worker API:

Web worker គឺជាអ៊ីនធីប្រព័ន្ធឌើម្បីការដាក់ការងារក្នុងទំនាក់ទំនងទាំងអស់ និងប្រើប្រាស់បច្ចេកទេសទាំងអស់។ វានៅពេលដែល web worker នឹងធ្វើការ user នៅក្នុងទំនាក់ទំនងទាំងអស់ ដូចជាផ្ទាល់ទូរសព្ទ (clicking, selecting things, etc)។

**Browser Support:** first version that support

API					
Web Workers	4.0	10.0	3.5	4.0	11.5

### ដើម្បីCheck Web Worker Support:

```
if (typeof(Worker) !== "undefined") {
    // Yes! Web worker support!
    // Some code.....
} else {
    // Sorry! No Web Worker support..
}
```

### ដើម្បីធ្វើការ message ត្រូវបានទំនាក់ទំនង HTML page ដោយប្រើ postMessage() method:

```
var i = 0;
function timedCount() {
    i = i + 1;
    postMessage(i);
    setTimeout("timedCount()",500);
}
timedCount();
```

### Create a Web Worker Object: ត្រូវបាន external javascript file

```
if (typeof(w) == "undefined") {
    w = new Worker("demo_workers.js");
}
```

ហើយយើងអាច send and receive messages ទី web worker បានដោយប្រើម "onmessage" event listener ទៅកាន់ web worker:

```
w.onmessage = function(event){
```

```
document.getElementById("result").innerHTML = event.data;
};
```

\*\*\*\*\* When the web worker posts a message, the code within the event listener is executed. The data from the web worker is stored in event.data.

### Terminate a Web Worker បញ្ចប់ worker

```
w.terminate();
```

### Reuse the Web Worker ជាទុទរក្រឹមបន្ថាប់ពី terminate

```
w = undefined;
```

### Web Workers and the DOM គោលការណ៍នៃការប្រើប្រាស់ DOM ដោយការបង្កើតការការងាររបស់ក្នុងការបង្កើតការការងារ

- The window object
- The document object
- The parent object

### ឧទាហរណ៍ នៃការបង្កើតការការងារ

#### ទី១ បង្កើត external javascript file(demo\_workers.js)

```
var i = 0;
function timedCount() {
    i = i + 1;
    postMessage(i);
    setTimeout("timedCount()",200);
}
```

**Count numbers:**

timedCount();

**Start Worker** **Stop Worker**

#### ទី២ នៃ HTML Page

```
<!DOCTYPE html> Note: Internet Explorer 9 and earlier versions do not support Web Workers.
<html>
<body>
<p>Count numbers: <output id="result"></output></p>
<button onclick="startWorker()">Start Worker</button>
<button onclick="stopWorker()">Stop Worker</button>
<p><strong>Note:</strong> Internet Explorer 9 and earlier versions do not support Web Workers.</p>
<script>
var w;
```

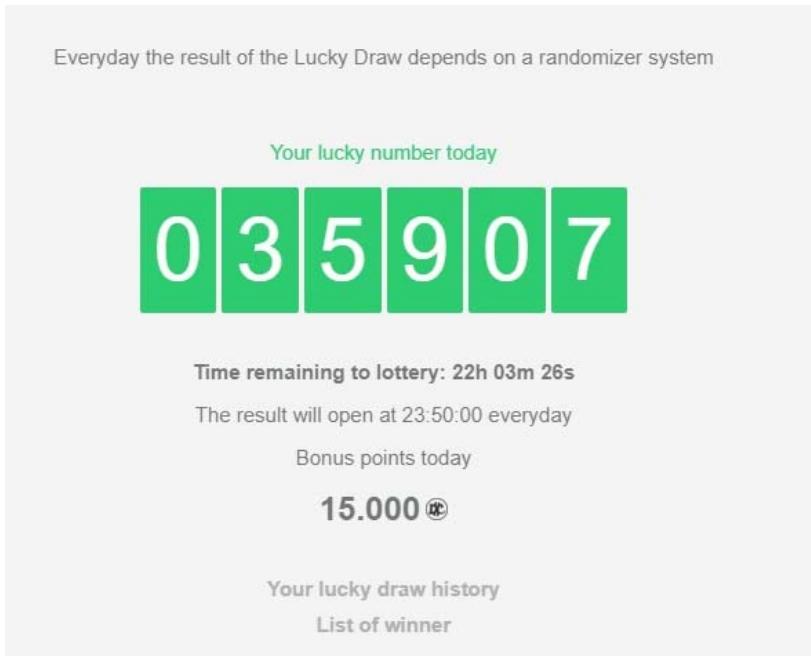
```

function startWorker() {
    if(typeof(Worker) !== "undefined") {
        if(typeof(w) == "undefined") {
            w = new Worker("demo_workers.js");
        }
        w.onmessage = function(event) {
            document.getElementById("result").innerHTML = event.data;
        };
    } else {
        document.getElementById("result").innerHTML = "Sorry, your browser does not support Web Workers...";
    }
}

function stopWorker() {
    w.terminate();
    w = undefined;
}
</script>
</body>
</html>

```

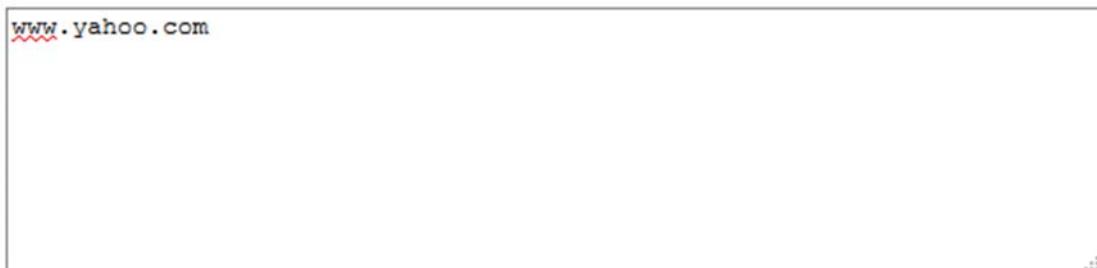
### លំបាត់៖ Lucky Draw Web Page



**HTML5 QRCODE API:**

ដើម្បី generate QR-Code ជាដំបូងក្រវត្ថុ download sample package របស់សិនាំ៖

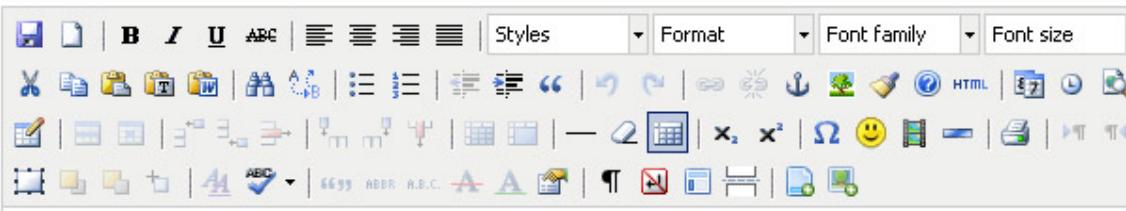
Download link: [https://www.tutorialspoint.com/html5/src/qr\\_code/qr\\_code.zip](https://www.tutorialspoint.com/html5/src/qr_code/qr_code.zip)

**HTML5 RICH TEXT EDITOR API:**

បច្ចុប្បន្នមាន free open source ជាប្រើនសម្រាប់បញ្ហាលទិន្នន័យ ផ្សេងៗ text formatting បានយ៉ាង  
ងារស្រួល ផ្សេងៗជាងក្រាម៖

**9) TinyMCE**

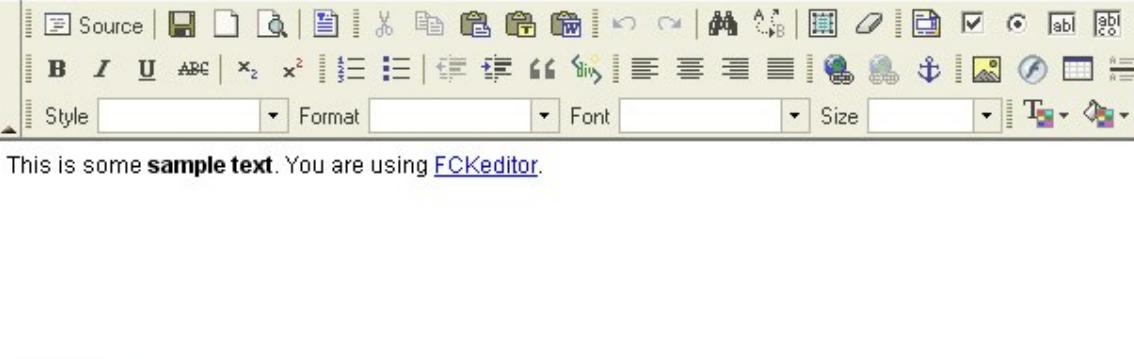
This example displays all plugins and buttons that comes with the TinyMCE package.



TinyMCE is a platform independent web based Javascript HTML **WYSIWYG** editor control released as Open Source under LGPL by Moxiecode Systems AB. It has the ability to convert HTML TEXTAREA fields or other HTML elements to editor instances. TinyMCE is very easy to integrate into other Content Management Systems.

We recommend [Google](#)

Path:

**10) FCK Editor**


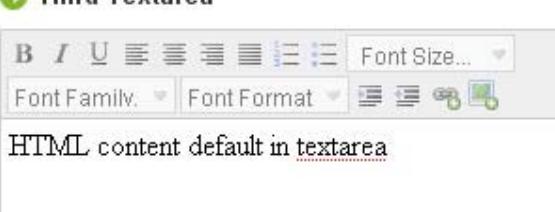
This is some **sample text**. You are using [FCKeditor](#).

Submit

**11) NicEdit**


Some Initial Content was in this textarea

Third Textarea



HTML content default in textarea

### ④ BXE



| Home | Demo | Download | Documentation | Development | Association | News | Contact |

## ► Bitflux Editor - The Wysiwyg XML Editor

### ► Webdesigner Depot Testing.

The Bitflux Editor is Open Source since September 10, 2002. Bitflux open-sourced the fully functional Editor (with tables, lists, picture upload etc.) under the Apache License.

want to take part in development or just want to say something, do not hesitate to subscribe to our [mailinglists](#). Any comment is very appreciated.

Furthermore, a very good resource for any questions and answers is

- » Some Voices
- » Features
- » License
- » Support

### Bitflux Blog

Tutorial about Ven  
[Full story »](#)

Principles for effec  
[Full story »](#)

Monorom's KAYWA  
[Full story »](#)

Difference between

### ④ Cross Browser Rich Text Editor (RTE)

here's the "preloaded content"

View Source

សូមមើលបន្ថែម៖

<https://www.webdesignerdepot.com/2008/12/20-excellent-free-rich-text-editors/>

មុននឹងសិក្សាយេង់នេះជាចំណាំខាតអ្នកគ្រឿងពេលមានចំនោះដើម្បីការសារ HTML ជាមុនសិន។ CSS តើជា language ដែលគេប្រើសម្រាប់ format HTML element ដើម្បីធ្វាប់ពីរបៀបដែលគ្រប់បង្ហាញនៅលើ page។

CSS = Cascading Style Sheets

CSS មាន extention ជា (\*.css)

CSS បានធ្វើយសប្រើប្រាស់នូវការងារជាថ្មីនូងការគ្រប់គ្រងលើ web page layout។ បើយកចាប់ link នៃទៅកាន់ HTML ជាលក្ខណៈ internal ឬ external file ក៏ពាន។

នៅក្នុងយេង់នេះនឹងបង្ហាញរាយអ្នកមានសមត្ថភាពដូចខាងក្រោម៖

- យល់ដឹងពី CSS ពីកម្រិត basic ហើយដល់ advance
- យល់ដឹងអំពីរបៀបប្រើប្រាស់នូវរបៀបប្រើប្រាស់ framework ផ្សេងៗ(bootstrap...)

## 2.1. Basic CSS

CSS Syntax:

Selector

Declaration

Declaration

h1

{ color:blue; font-size:12px; }

Property

Value

Property

Value

Selector : សំដើលើ HTML element ដែលយកមករបៀបចំ style

{...} : declaration block ដែល declaration នឹងយកកាត់ជាតិជាយ៉ាង semicolons();

គ្រប់ CSS declaration គ្រឿងមានជាតិនៃ Name:Value

CSS Selectors រាបជាទិ element name, id, class, attribute, និងផ្សេងៗទៀត។

**The element Selector:** ខាងក្រោម តើគ្រប់ `<p>` element ទាំងអស់គ្រឿងបាន change style

```
p {
```

```
    color: red;
```

```
    text-align: center;
```

```
}
```

**The id Selector:** ឧងក្រាម តី element ដែលមាន id= para1 ត្រូវបាន change style

```
#para1 {
    text-align: center;
    color: red;
}
```

**The class Selector:** ឧងក្រាម តីកណ្តែ element ដែលបានព្រឹងត្រូវបាន change style នៅ class ត្រូវបានគេយកទៅបច្ចុប្បន្នសំបាលជាដីនដី។

```
.center {
    text-align: center;
    color: red;
}
```

**Specific Element with Class:** class ឧងក្រាមអាចជាំណើរការបានតែលើប្រភេទ element ណាមួយតែប៉ុណ្ណោះ។

```
p.center {
    text-align: center;
    color: red;
}
```

### Using Multiple Class:

<p class="center large">This paragraph refers to two classes.</p>

**Grouping Selectors:** ប្រើពេល element មួយចំនួនមាន style ដូចតូល

```
h1, h2, p {
    text-align: center;
    color: red;
}
```

**CSS Comments:** បិទ script មិនឲ្យដើរការ

```
p {
    color: red;
    /* This is a single-line comment */
    text-align: center;
}
```

```
/* This is
a multi-line
comment */
```

### ឧទាហរណ៍៖

```
<!DOCTYPE html>
<html>
<head>
<style>
p.center {
    text-align: center;
    color: red;
}
p.large {
    font-size: 300%;
}
</style>
</head>
<body>
<h1 class="center">This heading will not be affected</h1>
<p class="center">This paragraph will be red and center-aligned.</p>
<p class="center large">This paragraph will be red, center-aligned, and in a large font-size.</p>
</body>
</html>
```

**This heading will not be affected**

This paragraph will be red and center-aligned.

This paragraph will be red, center-aligned, and in a large font-size.

### របៀបបញ្ចូល CSS ទៅក្នុង HTML៖

មាន ៣ របៀបដឹងទាន់ក្រោម៖

#### ទី១ External style sheet៖

បង្កើត css file (mystyle.css) និងបញ្ចូល script ខាងក្រោម

```
body {
    background-color: lightblue;
```

```
    }  
  
    h1 {  
        color: navy;  
        margin-left: 20px;  
    }
```

បង្កើត HTML file បើយបញ្ជូល script ដៃចាងក្រោម៖

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

### **ទី៣ Internal style sheet:**

```
<!DOCTYPE html>  
  
<html>  
    <head>  
        <style>  
            body {  
                background-color: linen;  
            }  
  
            h1 {  
                color: maroon;  
                margin-left: 40px;  
            }  
        </style>  
    </head>  
    <body>  
        <h1>This is a heading</h1>  
        <p>This is a paragraph.</p>
```

---

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

### ទី៣ Inline style :

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

<h1 style="color:blue;margin-left:30px;">This is a heading</h1>

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

ចំណាំ៖ style ទាំងពាន់លើគឺយើងអាចប្រើបាយជាមួយគ្នាតាន តែអ្នកត្រូវដឹងថាមួយណាដែនការណ៍ដែលនឹង change style នៅឯ HTML ។

1-Inline style ៖ អតិភាពមុនគេ(highest priority)

2-External and internal style sheets

3-Browser default

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
<style>
p {
    color: red;
}
</style>
</head>
<body style="background-color: lightcyan">
<h1>This is a Heading</h1>
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
</body>
</html>
```

**ការរើបច្បាស់ CSS Colors**

ផ្នែកនេះត្រូវ HTML ដើម្បី ការរើបច្បាស់ពណ៌អាម័ជា color names, or RGB, HEX, HSL, RGBA, HSLA values។

ចូលទៅ [https://www.w3schools.com/colors/colors\\_names.asp](https://www.w3schools.com/colors/colors_names.asp) ដើម្បីមើល color ដូចខាងក្រោម

**Background Color**

```
<h1 style="background-color:DodgerBlue;">Hello World</h1>
```

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

**Text Color**

```
<h1 style="color:Tomato;">Hello World</h1>
```

```
<p style="color:DodgerBlue;">Lorem ipsum...</p>
```

```
<p style="color:MediumSeaGreen;">Ut wisi enim...</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>
```

**Color Values**

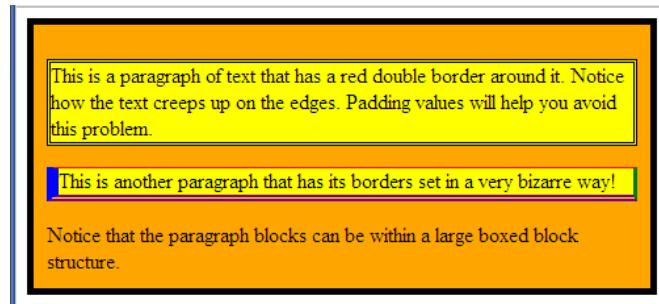
```
<h1 style="background-color:rgb(255, 99, 71);">...</h1>
```

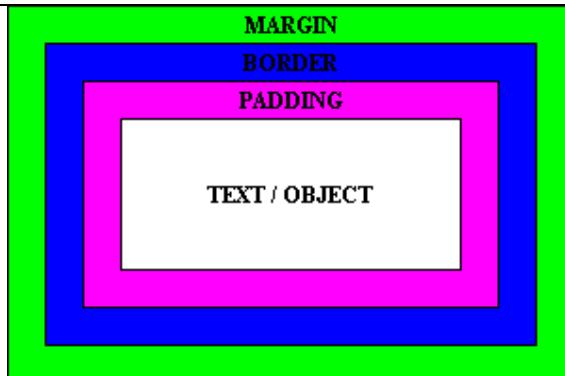
```
<h1 style="background-color:#ff6347;">...</h1>
```

```
<h1 style="background-color:hsl(9, 100%, 64%);">...</h1>
```

```
<h1 style="background-color:rgba(255, 99, 71, 0.5);">...</h1>
```

```
<h1 style="background-color:hsla(9, 100%, 64%, 0.5);">...</h1>
```

**លំហាត់**



បច្ចេកទេសប្រើ RGB Value ៖ ពណ៌ដែលកើតចេញពីបន្ទីន red, green, blue (0 ទៅ 255)។

rgb(red, green, blue)

rgb(255, 0, 0)	rgb(0, 0, 255)
rgb(60, 179, 113)	rgb(238, 130, 238)
rgb(255, 165, 0)	rgb(106, 90, 205)
rgb(0, 0, 0)	rgb(60, 60, 60)
rgb(120, 120, 120)	rgb(180, 180, 180)
rgb(240, 240, 240)	rgb(255, 255, 255)

បច្ចេកទេសប្រើ HEX Value ៖ ពណ៌ដែលកើតចេញពីបន្ទីន rr (red), gg (green) and bb (blue) (0 ដល់ 9 និងពី a ដល់ f)។

#rrggbb

#ff0000	#0000ff	#000000	#3c3c3c
#3cb371	#ee82ee	#787878	#b4b4b4
#ffa500	#6a5acd	#f0f0f0	#ffffff

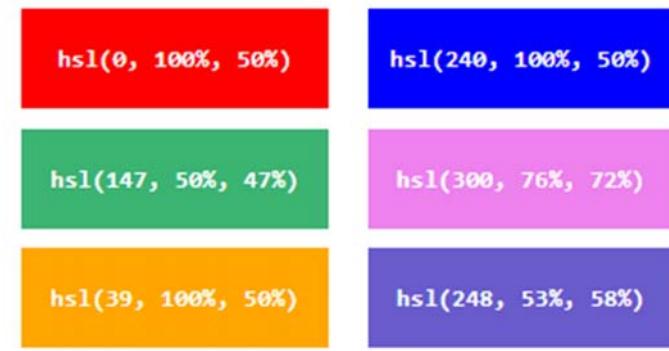
**បច្ចេកទេសប្រើ HSL Value ៖ ពណ៌រដែលកើតចេញពីបន្ទាំង** hue, saturation, and lightness (HSL)

### **hsl(hue, saturation, lightness)**

**Hue** is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue.

**Saturation** is a percentage value, 0% means a shade of gray, and 100% is the full color.

**Lightness** is also a percentage, 0% is black, 50% is neither light or dark, 100% is white

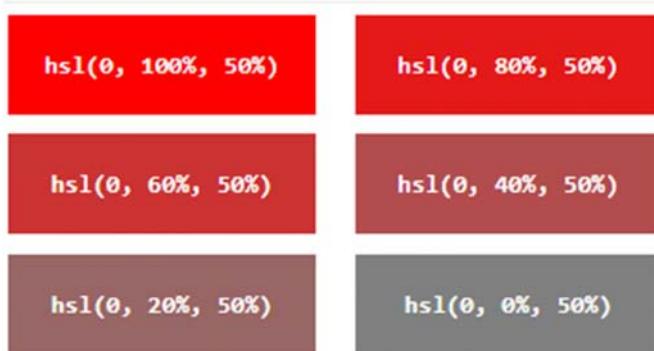


### **Saturation** ៖

100% is pure color, no shades of gray

50% is 50% gray, but you can still see the color.

0% is completely gray, you can no longer see the color.

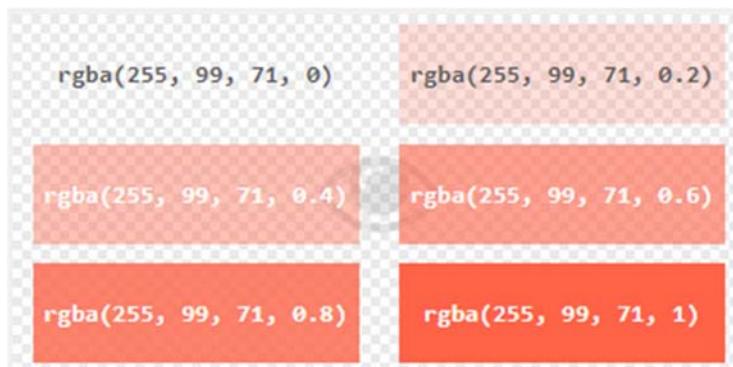


### **Lightness** ៖

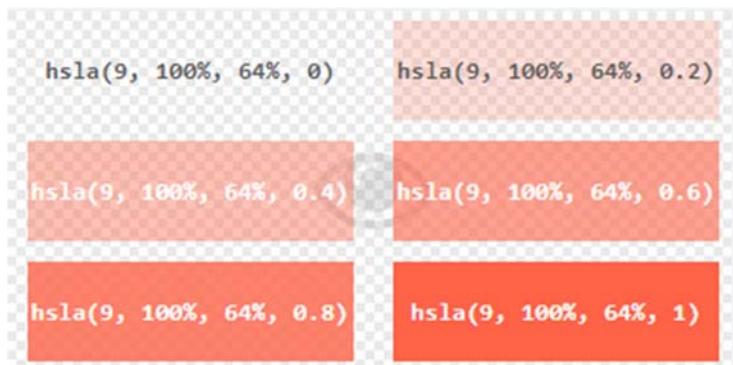
described as how much light you want, where 0% means no light (black), 50% means 50% light (neither dark nor light) 100% means full lightness (white).



**បច្ចេកទេសប្រើ RGB Value :** បន្ថីម alpha(transparency)(0.0 ទៅ 1.0) ចូលទៅលើ RGB។  
rgba(red, green, blue, alpha)



**បច្ចេកទេសប្រើ HSLA Value :** បន្ថីម alpha(transparency)(0.0 ទៅ 1.0) ចូលទៅលើ HSL។  
hsla(hue, saturation, lightness, alpha)



### រាយប្រព័ន្ធឌ CSS Backgrounds:

CSS background properties:

Property	Description
<a href="#">background</a>	Sets all the background properties in one declaration

<a href="#"><u>background-attachment</u></a>	Sets whether a background image is fixed or scrolls with the rest of the page
<a href="#"><u>background-clip</u></a>	Specifies the painting area of the background
<a href="#"><u>background-color</u></a>	Sets the background color of an element
<a href="#"><u>background-image</u></a>	Sets the background image for an element
<a href="#"><u>background-origin</u></a>	Specifies where the background image(s) is/are positioned
<a href="#"><u>background-position</u></a>	Sets the starting position of a background image
<a href="#"><u>background-repeat</u></a>	Sets how a background image will be repeated
<a href="#"><u>background-size</u></a>	Specifies the size of the background image(s)

### Background Color:

```
body {
    background-color: lightblue;
}

h1 {
    background-color: green;
}

div {
    background-color: lightblue;
}

p {
    background-color: yellow;
}
```

### Background Image:

```
body {
    background-image: url("paper.gif");
}
```

```
body {  
    background-image: url("bgdesert.jpg");  
}  
  
body {  
    background-image: url("gradient_bg.png");  
}
```

### **Background Image - Repeat Horizontally or Vertically**<sup>‡</sup>

```
body {  
    background-image: url("gradient_bg.png");  
    background-repeat: repeat-x;  
}
```

### **Background Image - Set position and no-repeat**<sup>‡</sup>

```
body {  
    background-image: url("img_tree.png");  
    background-repeat: no-repeat;  
    background-position: right top;  
}
```

### **Background Image - Fixed position**<sup>‡</sup>

```
body {  
    background-image: url("img_tree.png");  
    background-repeat: no-repeat;  
    background-position: right top;  
    background-attachment: fixed;  
}
```

### **Background - Shorthand property**<sup>‡</sup>

```
body {  
    background: #ffffff url("img_tree.png") no-repeat right top;  
}
```

## ការរួមច្បាស់ CSS Borders

### CSS Border Properties

Property	Description
<a href="#"><u>border</u></a>	Sets all the border properties in one declaration
<a href="#"><u>border-bottom</u></a>	Sets all the bottom border properties in one declaration
<a href="#"><u>border-bottom-color</u></a>	Sets the color of the bottom border
<a href="#"><u>border-bottom-style</u></a>	Sets the style of the bottom border
<a href="#"><u>border-bottom-width</u></a>	Sets the width of the bottom border
<a href="#"><u>border-color</u></a>	Sets the color of the four borders
<a href="#"><u>border-left</u></a>	Sets all the left border properties in one declaration
<a href="#"><u>border-left-color</u></a>	Sets the color of the left border
<a href="#"><u>border-left-style</u></a>	Sets the style of the left border
<a href="#"><u>border-left-width</u></a>	Sets the width of the left border
<a href="#"><u>border-radius</u></a>	Sets all the four border-* -radius properties for rounded corners
<a href="#"><u>border-right</u></a>	Sets all the right border properties in one declaration
<a href="#"><u>border-right-color</u></a>	Sets the color of the right border
<a href="#"><u>border-right-style</u></a>	Sets the style of the right border
<a href="#"><u>border-right-width</u></a>	Sets the width of the right border

<a href="#"><u>border-style</u></a>	Sets the style of the four borders
<a href="#"><u>border-top</u></a>	Sets all the top border properties in one declaration
<a href="#"><u>border-top-color</u></a>	Sets the color of the top border
<a href="#"><u>border-top-style</u></a>	Sets the style of the top border
<a href="#"><u>border-top-width</u></a>	Sets the width of the top border
<a href="#"><u>border-width</u></a>	Sets the width of the four borders

### Border Style §

```
p.dotted {border-style: dotted;}
p.dashed {border-style: dashed;}
p.solid {border-style: solid;}
p.double {border-style: double;}
p.groove {border-style: groove;}
p.ridge {border-style: ridge;}
p.inset {border-style: inset;}
p.outset {border-style: outset;}
p.none {border-style: none;}
p.hidden {border-style: hidden;}
p.mix {border-style: dotted dashed solid double;}
```

### Border Width §

```
p.one {
    border-style: solid;
    border-width: 5px;
}

p.two {
    border-style: solid;
    border-width: medium;
}
```

```
p.three {  
    border-style: solid;  
    border-width: 2px 10px 4px 20px;  
}
```

### **Border Color:**

```
p.one {  
    border-style: solid;  
    border-color: red;  
}  
  
p.two {  
    border-style: solid;  
    border-color: green;  
}  
  
p.three {  
    border-style: solid;  
    border-color: red green blue yellow;  
}
```

### **Border - Individual Sides:**

```
p {  
    border-top-style: dotted;  
    border-right-style: solid;  
    border-bottom-style: dotted;  
    border-left-style: solid;  
}  
  
p {  
    border-style: dotted solid;  
}
```

### **Border - Shorthand Property:**

```
p {  
    border: 5px solid red;  
}  
  
p {
```

```

border-left: 6px solid red;
background-color: lightgrey;
}

p {
border-bottom: 6px solid red;
background-color: lightgrey;
}

```

**Rounded Borders:**

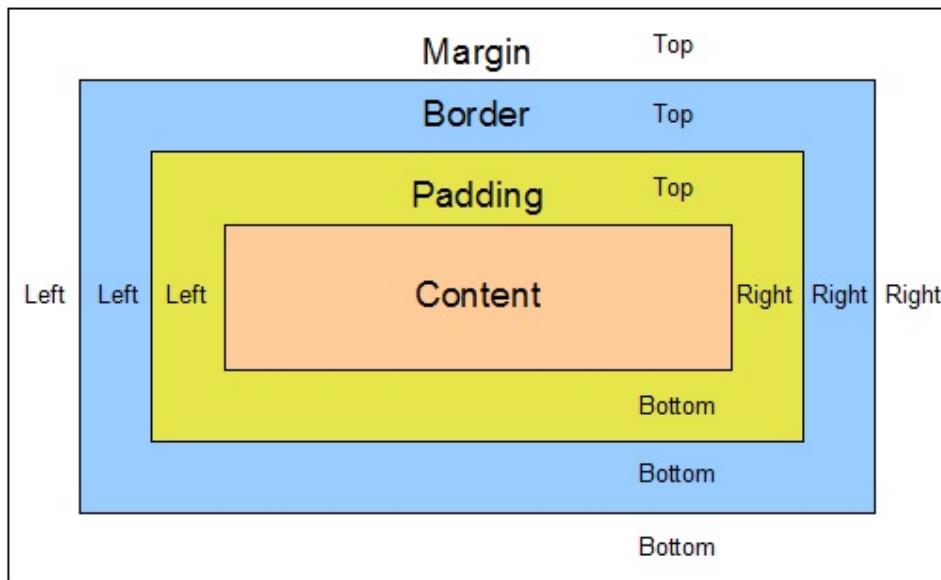
```

p {
border: 2px solid red;
border-radius: 5px;
}

```

**ការប្រើប្រាស់ CSS Margins:**

## CSS Margin Properties



Property	Description
<a href="#">margin</a>	A shorthand property for setting the margin properties in one declaration
<a href="#">margin-bottom</a>	Sets the bottom margin of an element

<a href="#"><u>margin-left</u></a>	Sets the left margin of an element
<a href="#"><u>margin-right</u></a>	Sets the right margin of an element
<a href="#"><u>margin-top</u></a>	Sets the top margin of an element

## ខ្លាតកន្លែងបស់មានដូចខាងក្រោម៖

- **auto** - the browser calculates the margin
- **length** - specifies a margin in px, pt, cm, etc.
- **%** - specifies a margin in % of the width of the containing element
- **inherit** - specifies that the margin should be inherited from the parent element

### Margin - Individual Sides:

```
p {
    margin-top: 100px;
    margin-bottom: 100px;
    margin-right: 150px;
    margin-left: 80px;
}
```

### Margin - Shorthand Property:

```
p {
    margin: top right bottom left;
}
p {
    margin: 25px 50px 75px 100px;
}

p {
    margin: top right_left bottom;
}
p {
    margin: 25px 50px 75px;
```

}

```
p {  
    margin: top_bottom      right_left;  
}  
  
p {  
    margin: 25px 50px 75px 100px;  
}  
  
p {  
    margin: all;  
}  
  
p {  
    margin: 25px;  
}
```

**The auto Value:** You can set the margin property to auto to horizontally center the element within its container.

```
div {  
    width: 300px;  
    margin: auto;  
    border: 1px solid red;  
}
```

**The inherit Value:** តើម្នល់ត្រូវបានទាញចេញពី parent element របស់វា <p> និងទាញយក margin-left ទី <div>។

```
<!DOCTYPE html>  
<html>  
<head>  
<style>  
div {  
    border: 1px solid red;  
    margin-left: 100px;  
}
```

```

p.ex1 {
    margin-left: inherit;
}
</style>
</head>
<body>
<h2>Use of the inherit value</h2>
<p>Let the left margin be inherited from the parent element:</p>
<div>
<p class="ex1">This paragraph has an inherited left margin (from the div element).</p>
</div>
</body>
</html>

```

**Margin Collapse:**

```

h1 {
    margin: 0 0 50px 0;
}
h2 {
    margin: 20px 0 0 0;
}

```

**ကျက်ပြောဆုံး CSS Padding:****CSS Padding Properties:**

Property	Description
<a href="#">padding</a>	A shorthand property for setting all the padding properties in one declaration
<a href="#">padding-bottom</a>	Sets the bottom padding of an element
<a href="#">padding-left</a>	Sets the left padding of an element

<a href="#"><u>padding-right</u></a>	Sets the right padding of an element
<a href="#"><u>padding-top</u></a>	Sets the top padding of an element

## ខ្លាតកំម្មុរស់មានដូចខាងក្រោម៖

- **auto** - the browser calculates the margin
- **length** - specifies a margin in px, pt, cm, etc.
- **%** - specifies a margin in % of the width of the containing element
- **inherit** - specifies that the margin should be inherited from the parent element

### Padding - Individual Sides:

```
div {
    padding-top: 50px;
    padding-right: 30px;
    padding-bottom: 50px;
    padding-left: 80px;
}
```

### Padding - Shorthand Property: ប្រើដូច margin ដែល

```
div {
    padding: 25px 50px 75px 100px;
}
div {
    padding: 25px 50px 75px;
}
div {
    padding: 25px 50px;
}
div {
    padding: 25px;
}
```

## ការប្រើប្រាស់ CSS Height and Width

### CSS Dimension Properties

Property	Description
<a href="#"><u>height</u></a>	Sets the height of an element
<a href="#"><u>max-height</u></a>	Sets the maximum height of an element
<a href="#"><u>max-width</u></a>	Sets the maximum width of an element
<a href="#"><u>min-height</u></a>	Sets the minimum height of an element
<a href="#"><u>min-width</u></a>	Sets the minimum width of an element
<a href="#"><u>width</u></a>	Sets the width of an element

### កម្រស់របស់អាជីវការ

- **auto**: this is default
- **length values**: like px, cm, etc., or in percent (%)

#### Setting height and width

```
div {
    height: 200px;
    width: 50%;
    background-color: powderblue;
}
```

ចំណាំ height និង width មិនគឺមួយបញ្ហាលដាម្បីយើង padding, borders, ឬ marginsទេ។

#### Setting max-width: តើជានឹមុនការណ៍ដែលបានប្រើប្រាស់

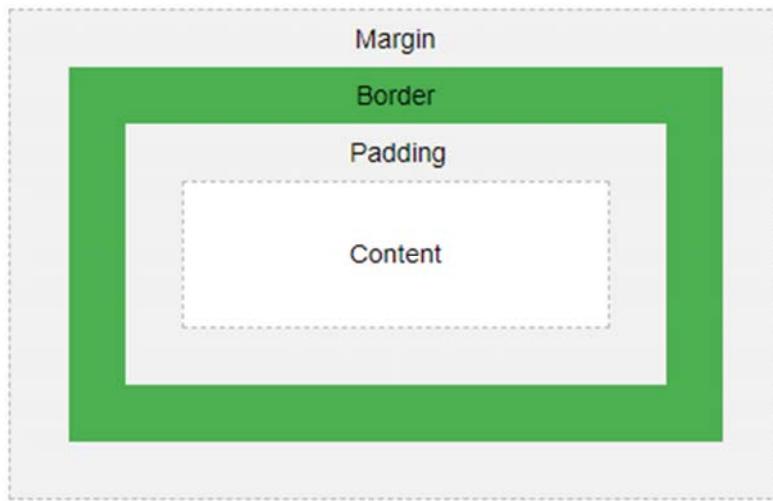
### កម្រស់របស់អាជីវការ

- **length values**: មានជូនចាតិដូចជា px, cm, etc., or in percent (%)
- **none**: this is default.

```
div {
    max-width: 500px;
    height: 100px;
    background-color: powderblue;
}
```

### The CSS Box Model

នេះពេលអ្នកប្រើ HTML element សូមគិតដូចខាងក្រោម៖



- Content - The content of the box, where text and images appear
- Padding - Clears an area around the content. The padding is transparent
- Border - A border that goes around the padding and content
- Margin - Clears an area outside the border. The margin is transparent

### ឧទាហរណ៍

```
div {
    width: 320px;
    padding: 10px;
    border: 5px solid gray;
    margin: 0;
}
```

ខាងក្រោមជារបៀបគណនាបស់ browser

320px (width)

+ 20px (left + right padding)  
+ 10px (left + right border)  
+ 0px (left + right margin)

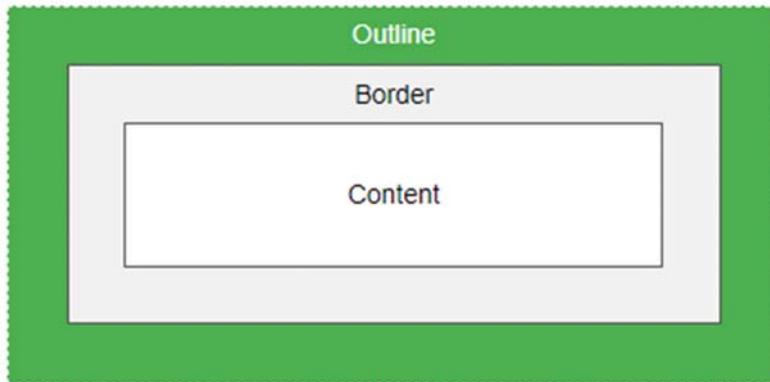
នំប្បញ្ញបំពិតប្រាកដតី = 350px

**Total element width** = width + left padding + right padding + left border + right border + left margin + right margin

**Total element height** = height + top padding + bottom padding + top border + bottom border + top margin + bottom margin

### ការរួមច្បាស់ CSS Outline

គឺជា line ដែលត្រូវក្នុង element និងនៅពីរក្នុង border។



### **CSS Outline Properties**

Property	Description
<a href="#"><u>outline</u></a>	A shorthand property for setting outline-width, outline-style, and outline-color in one declaration
<a href="#"><u>outline-color</u></a>	Sets the color of an outline
<a href="#"><u>outline-offset</u></a>	Specifies the space between an outline and the edge or border of an element
<a href="#"><u>outline-style</u></a>	Sets the style of an outline
<a href="#"><u>outline-width</u></a>	Sets the width of an outline

### **Outline Style**

```
p.dotted {outline-style: dotted;}
```

```
p.dashed {outline-style: dashed;}
```

```
p.solid {outline-style: solid;}  
p.double {outline-style: double;}  
p.groove {outline-style: groove;}  
p.ridge {outline-style: ridge;}  
p.inset {outline-style: inset;}  
p.outset {outline-style: outset;}
```

### Outline Color:

```
p.ex1 {  
  
    border: 1px solid black;  
  
    outline-style: solid;  
    outline-color: red;  
  
}
```

```
p.ex2 {  
  
    border: 1px solid black;  
  
    outline-style: double;  
    outline-color: green;  
  
}
```

```
p.ex3 {  
  
    border: 1px solid black;  
  
    outline-style: outset;  
    outline-color: yellow;  
  
}
```

### Outline Width:

- thin (typically 1px)
- medium (typically 3px)
- thick (typically 5px)
- A specific size (in px, pt, cm, em, etc)

```
p.ex1 {  
  
    border: 1px solid black;  
  
    outline-style: solid;  
    outline-color: red;
```

```
outline-width: thin;  
}  
  
p.ex2 {  
  
    border: 1px solid black;  
  
    outline-style: solid;  
  
    outline-color: red;  
  
    outline-width: medium;  
}  
  
p.ex3 {  
  
    border: 1px solid black;  
  
    outline-style: solid;  
  
    outline-color: red;  
  
    outline-width: thick;  
}  
  
p.ex4 {  
  
    border: 1px solid black;  
  
    outline-style: solid;  
  
    outline-color: red;  
  
    outline-width: 4px;  
}
```

### Outline - Shorthand property:

```
p.ex1 {outline: dashed;}  
  
p.ex2 {outline: dotted red;}  
  
p.ex3 {outline: 5px solid yellow;}  
  
p.ex4 {outline: thick ridge pink;}
```

**Outline Offset:** ជី space បន្ទាន់គឺមនែន outline នៅ border

```
p {  
  
    margin: 30px;
```

```

border: 1px solid black;
outline: 1px solid red;
outline-offset: 15px;
}

```

This paragraph has an outline 15px outside the border edge.

## ការរួមច្បាស់ CSS Text

### All CSS Text Properties:

Property	Description
<a href="#">color</a>	Sets the color of text
<a href="#">direction</a>	Specifies the text direction/writing direction
<a href="#">letter-spacing</a>	Increases or decreases the space between characters in a text
<a href="#">line-height</a>	Sets the line height
<a href="#">text-align</a>	Specifies the horizontal alignment of text
<a href="#">text-decoration</a>	Specifies the decoration added to text
<a href="#">text-indent</a>	Specifies the indentation of the first line in a text-block
<a href="#">text-shadow</a>	Specifies the shadow effect added to text
<a href="#">text-transform</a>	Controls the capitalization of text
<a href="#">text-overflow</a>	Specifies how overflowed content that is not displayed should be signaled to the user
<a href="#">unicode-bidi</a>	Used together with the <a href="#">direction</a> property to set or return whether the text should be overridden to support multiple languages in the same document

<a href="#"><u>vertical-align</u></a>	Sets the vertical alignment of an element
<a href="#"><u>white-space</u></a>	Specifies how white-space inside an element is handled
<a href="#"><u>word-spacing</u></a>	Increases or decreases the space between words in a text

**Text Color:**

```
body {
    color: blue;
}
h1 {
    color: green;
}
```

**Text Alignment:**

```
h1 {
    text-align: center;
}
h2 {
    text-align: left;
}
h3 {
    text-align: right;
}
div {
    text-align: justify;
}
```

**Text Decoration:** set or remove decorations from text

```
<!DOCTYPE html>
<html>
<head>
<style>
```

```
a {  
    text-decoration: none;  
}  
</style>  
</head>  
<body>  
<p>A link with no underline: <a  
href="https://www.w3schools.com">W3Schools.com</a></p>  
</body>  
</html>
```

## មានកំណត់ដូចខាងក្រោម

```
h1 {  
    text-decoration: overline;  
}  
  
h2 {  
    text-decoration: line-through;  
}  
  
h3 {  
    text-decoration: underline;  
}
```

**Text Transformation** : uppercase and lowercase letters in a text.

```
p.uppercase {  
    text-transform: uppercase;  
}  
  
p.lowercase {  
    text-transform: lowercase;  
}  
  
p.capitalize {  
    text-transform: capitalize;  
}
```

**Text Indentation** : ចុលបញ្ជាក់

```
p {
```

```
text-indent: 50px;
```

```
}
```

**Letter Spacing**: តម្លៃពអក្សរ

```
h1 {
```

```
letter-spacing: 3px;
```

```
}
```

```
h2 {
```

```
letter-spacing: -3px;
```

```
}
```

**Line Height**: តម្លៃនៃបន្ទាត់នៃជូនអក្សរ

```
p.small {
```

```
line-height: 0.8;
```

```
}
```

```
p.big {
```

```
line-height: 1.8;
```

```
}
```

**Text Direction**: ទិសដំឡើងអក្សរ(rtl មាននំយចា right to left)

```
p {
```

```
direction: rtl;
```

```
}
```

**Word Spacing**: តម្លៃនៃពាក្យ

```
h1 {
```

```
word-spacing: 10px;
```

```
}
```

```
h2 {
```

```
word-spacing: -5px;
```

```
}
```

**Text Shadow:** ជាក់ស្របមេលអក្សរ

```
text-shadow: horizontal_shadow vertical_shadow color;
h1 {
    text-shadow: 3px 2px red;
}
```

**កម្មបីប្រាស់ CSS Fonts:** គឺ format លើអក្សរ។ យើងអាចប្រើវាដើម្បីកំណត់នូវ font family, boldness, size, and the style នៃស្នើសុំ text។

**All CSS Font Properties:**

Property	Description
<a href="#">font</a>	Sets all the font properties in one declaration
<a href="#">font-family</a>	Specifies the font family for text
<a href="#">font-size</a>	Specifies the font size of text
<a href="#">font-style</a>	Specifies the font style for text
<a href="#">font-variant</a>	Specifies whether or not a text should be displayed in a small-caps font
<a href="#">font-weight</a>	Specifies the weight of a font

**CSS Font Families:**

Font family មានច្បាស់ៗ

- **generic family** - a group of font families with a similar look (like "Serif" or "Monospace")
- **font family** - a specific font family (like "Times New Roman" or "Arial")

Generic family	Font family	Description
Serif	Times New Roman Georgia	Serif fonts have small lines at the ends on some characters
Sans-serif	Arial Verdana	"Sans" means without - these fonts do not have the lines at the ends of characters
Monospace	Courier New Lucida Console	All monospace characters have the same width

### Font Family:

```
p {
    font-family: "Times New Roman", Times, serif;
}
```

### Font Style:

```
p.normal {
    font-style: normal;
}
p.italic {
    font-style: italic;
}
p.oblique {
    font-style: oblique;
}
```

**Font Size:** ទំហំអក្សរអាមិតជាលូយ absolute ឬ relative size (16px=1em)

### ផ្ទាល់ Pixels

```
h1 {
    font-size: 40px;
}
h2 {
```

```
font-size: 30px;  
}  
  
p {  
    font-size: 14px;  
}  
  
ຊາດ Em (1em=current font size=16px)
```

ឬរចាំថា element នឹមួយៗគឺមានទំហំ px ដើម្បីអត្ថប្រយោជន៍(<p> = 16px, <h1>=40px, <h2>=30px....>

ដូចនេះបើចង់បំលែងខាតរបស់ element ទៅជា em=pixel/16

Developer ធានាប្រើប្រាស់បញ្ជីក្រោមខាតនេះណាស់

```
h1 {  
    font-size: 2.5em; /* 40px/16=2.5em */  
}  
  
h2 {  
    font-size: 1.875em; /* 30px/16=1.875em */  
}  
  
p {  
    font-size: 0.875em; /* 14px/16=0.875em */  
}
```

### Use a Combination of Percent and Em

```
body {  
    font-size: 100%;  
}  
  
h1 {  
    font-size: 2.5em;  
}  
  
h2 {  
    font-size: 1.875em;  
}  
  
p {  
    font-size: 0.875em;
```

{}

**Font Weight:**

```
p.normal {  
    font-weight: normal;  
}  
  
p.thick {  
    font-weight: bold;  
}
```

**Responsive Font Size:**

ឯកសារនេះ vw = "viewport width" ដើម្បីទទួលភាពអាចបាន responsive

```
<!DOCTYPE html>  
  
<html>  
  
<meta name="viewport" content="width=device-width, initial-scale=1.0">  
  
<body>  
  
<h1 style="font-size:10vw;">Responsive Text</h1>  
  
<p style="font-size:5vw;">Resize the browser window to see how the text size  
scales.</p>  
  
<p>Viewport is the browser window size. 1vw = 1% of viewport width. If the viewport is  
50cm wide, 1vw is 0.5cm.</p>  
  
</body>  
  
</html>
```

**Font Variant:**

```
p.normal {  
    font-variant: normal;  
}  
  
p.small {  
    font-variant: small-caps;  
}
```

My name is Hege Refsnes.

MY NAME IS HEGE REFSNES.

## ការប្រើប្រាស់ CSS Icons ជា file រូបភាពដែលមាន extension (\*.ico)



នឹង internet គីមាន library ដែលអាចទ្វាមកទាញយកនូវ icon ទាំងនេះមកប្រើប្រាស់បាន។

### **Font Awesome Icons:**

Add library នៃក្រោមចូលទៅផ្ទៀងៗ head

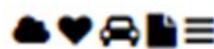
```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
```

### **ឧទាហរណ៍:**

```
<!DOCTYPE html>
<html>
<head>
<title>Font Awesome Icons</title>
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
```

```
</head>
<body>
<p>Some Font Awesome icons:</p>
<i class="fa fa-cloud"></i>
<i class="fa fa-heart"></i>
<i class="fa fa-car"></i>
<i class="fa fa-file"></i>
<i class="fa fa-bars"></i>
```

### Some Font Awesome icons:



### Styled Font Awesome icons (size and color):



<p>Styled Font Awesome icons (size and color):</p>

```
<i class="fa fa-cloud" style="font-size:24px;"></i>
<i class="fa fa-cloud" style="font-size:36px;"></i>
<i class="fa fa-cloud" style="font-size:48px;color:red;"></i>
<i class="fa fa-cloud" style="font-size:60px;color:lightblue;"></i>
</body>
```

```
</html>
```

ដើម្បីសិក្សាបន្ថែមពី version ថ្មីចូលទៅកាន់ Link ខាងក្រោម៖

<https://fontawesome.com/>

### Bootstrap Icons:

Add library ខាងក្រោមចូលទៅផ្ទើក head

```
<link rel="stylesheet"
      href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">

<!DOCTYPE html>
<html>
  <head>
    <title>Bootstrap Icons</title>
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css" rel="stylesheet">
  </head>
  <body class="container">
    <p>Some Bootstrap icons:</p>
    <i class="glyphicon glyphicon-cloud"></i>
    <i class="glyphicon glyphicon-remove"></i>
    <i class="glyphicon glyphicon-user"></i>
    <i class="glyphicon glyphicon-envelope"></i>
    <i class="glyphicon glyphicon-thumbs-up"></i>
    <br><br>
    <p>Styled Bootstrap icons (size and color):</p>
    <i class="glyphicon glyphicon-cloud" style="font-size:24px;"></i>
    <i class="glyphicon glyphicon-cloud" style="font-size:36px;"></i>
    <i class="glyphicon glyphicon-cloud" style="font-size:48px;color:red;"></i>
    <i class="glyphicon glyphicon-cloud" style="font-size:60px;color:lightblue;"></i>
  </body>
</html>
```

Some Bootstrap icons:



Styled Bootstrap icons (size and color):



ចូលទៅ Link ខាងក្រោមដើម្បីធើល icon ដូចខាងក្រោម៖

[https://www.w3schools.com/icons/bootstrap\\_icons\\_glyphicons.asp](https://www.w3schools.com/icons/bootstrap_icons_glyphicons.asp)

### ការរួមច្បាស់ CSS Links:



### **Styling Links** (e.g. color, font-family, background, etc.)

```
/* unvisited link */
a:link {
    color: red;
}

/* visited link */
a:visited {
    color: green;
}

/* mouse over link */
a:hover {
    color: hotpink;
}

/* selected link */
a:active {
    color: blue;
}



- a:hover MUST come after a:link and a:visited
- a:active MUST come after a:hover

```

### **Text Decoration**: used to remove underlines from links

```
a:link {
    text-decoration: none;
}

a:visited {
    text-decoration: none;
}
```

```
a:hover {  
    text-decoration: underline;  
}  
a:active {  
    text-decoration: underline;  
}
```

**Background Color** ຂໍ background ພົບສົງ link

```
a:link {  
    background-color: yellow;  
}  
a:visited {  
    background-color: cyan;  
}  
a:hover {  
    background-color: lightgreen;  
}  
a:active {  
    background-color: hotpink;  
}
```

**ຂາຍກະດັບ:**

```
<!DOCTYPE html>  
<html>  
<head>  
<style>  
a:link, a:visited {  
    background-color: #f44336;  
    color: white;  
    padding: 14px 25px;  
    text-align: center;  
    text-decoration: none;  
    display: inline-block;  
}
```



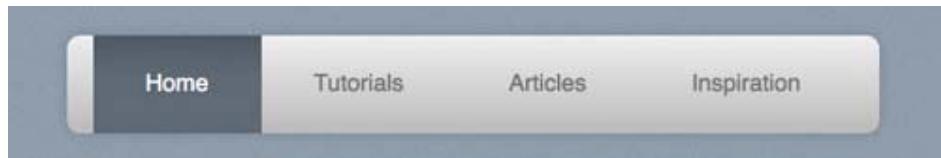
This is a link

```

a:hover, a:active {
    background-color: red;
}
</style>
</head>
<body>
<a href="default.asp" target="_blank">This is a link</a>
</body>
</html>

```

លំហាត់៖ ចូរបង្កើត Menu ដូចខាងក្រោម៖



ការប្រើប្រាស់ CSS Lists: អ្នកបានធ្លាប់ធ្វើវាមួយចមកហើយតុងវគ្គ HTML

List មាន ២ ប្រភេទ៖

- **unordered lists (<ul>)** - the list items are marked with bullets
- **ordered lists (<ol>)** - the list items are marked with numbers or letters

Unordered Lists:

- Coffee
- Tea
- Coca Cola
  
- Coffee
- Tea
- Coca Cola

Ordered Lists:

1. Coffee
2. Tea
3. Coca Cola
  
- I. Coffee
- II. Tea
- III. Coca Cola

**All CSS List Properties:**

<b>Property</b>	<b>Description</b>
<a href="#"><u>list-style</u></a>	Sets all the properties for a list in one declaration
<a href="#"><u>list-style-image</u></a>	Specifies an image as the list-item marker
<a href="#"><u>list-style-position</u></a>	Specifies the position of the list-item markers (bullet points)
<a href="#"><u>list-style-type</u></a>	Specifies the type of list-item marker

**Different List Item Markers:**

```
ul.a {
    list-style-type: circle;
}
ul.b {
    list-style-type: square;
}
ol.c {
    list-style-type: upper-roman;
}
ol.d {
    list-style-type: lower-alpha;
}
```

**An Image as The List Item Marker:**

```
ul {
    list-style-image: url('sqpurple.gif');
}
```

**Position The List Item Markers:**

```
ul.a {
    list-style-position: outside;
}
```

```
ul.b {
    list-style-position: inside;
}
```

**Remove Default Settings:**

```
ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
}
```

- Coffee - A brewed drink prepared from roasted coffee beans...
- Tea
- Coca-cola

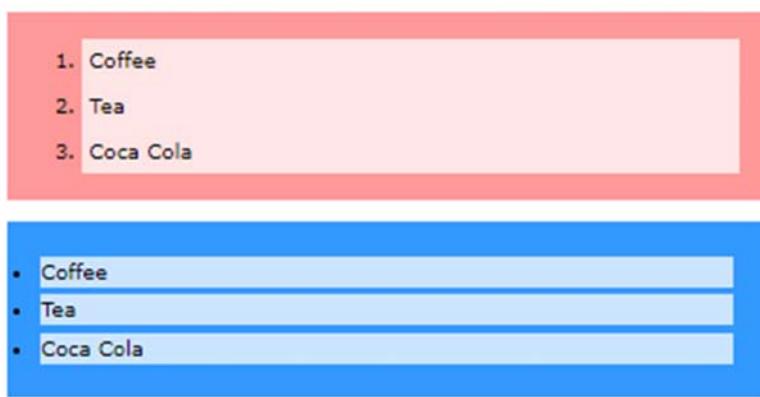
- Coffee - A brewed drink prepared from roasted coffee beans...
- Tea
- Coca-cola

**List - Shorthand property:**

```
ul {
    list-style: square inside url("sqpurple.gif");
}
```

**Styling List With Colors:**

```
<!DOCTYPE html>
<html>
<head>
<style>
ol {
    background: #ff9999;
    padding: 20px;
}
ul {
    background: #3399ff;
    padding: 20px;
}
ol li {
    background: #ffe5e5;
    padding: 5px;
    margin-left: 35px;
}
ul li {
```



```
background: #cce5ff;  
margin: 5px;  
}  
</style>  
</head>  
<body>  
<h1>Styling Lists With Colors:</h1>  
<ol>  
<li>Coffee</li>  
<li>Tea</li>  
<li>Coca Cola</li>  
</ol>  
<ul>  
<li>Coffee</li>  
<li>Tea</li>  
<li>Coca Cola</li>  
</ul>  
</body>  
</html>
```

លំហាត់

## Mobile Operating System

- Android
- Blackberry
- iPhone
- Windows Phone

## Mobile Manufacturers

- Samsung
- HTC
- Micromax
- Apple

**CSS List Style with Sprites Image Background**

-  Free WordPress Themes
-  Free Joomla Templates
-  Free Drupal Themes
-  Free Admin Templates
-  Free Blogger Templates

**CSS List Style with Number Circle Background**

- 1 Free WordPress Themes
- 2 Free Joomla Templates
- 3 Free Drupal Themes
- 4 Free Admin Templates
- 5 Free Blogger Templates

**CSS List Style with Arrow Image**

-  40 Best Premium WordPress Themes April 2013
-  45 Best Sale WordPress Themes for January 2013
-  40 Best Premium WordPress Themes for Feb 2013
-  45 Best Responsive WordPress Themes March 2013
-  107 Best Sale Premium Responsive WordPress Themes 2012
-  40 Best Sale Website Templates for April 2013

## ការប្រើប្រាស់ CSS Tables៖

យើងក៏អាចប្រើប្រាស់ CSS ដឹងដែរដើម្បី format HTML table។

### **CSS Table Properties៖**

Property	Description
<a href="#">border</a>	Sets all the border properties in one declaration
<a href="#">border-collapse</a>	Specifies whether or not table borders should be collapsed
<a href="#">border-spacing</a>	Specifies the distance between the borders of adjacent cells
<a href="#">caption-side</a>	Specifies the placement of a table caption
<a href="#">empty-cells</a>	Specifies whether or not to display borders and background on empty cells in a table
<a href="#">table-layout</a>	Sets the layout algorithm to be used for a table

**Table Borders:**

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

Firstname	Lastname
Peter	Griffin
Lois	Griffin

**Collapse Table Borders:**

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

Firstname	Lastname
Peter	Griffin
Lois	Griffin

**Table Width and Height:**

```
table {
    width: 100%;
}
```

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300

```
th {
    height: 50px;
}
```

**Horizontal Alignment:** left, right, center

```
th {
    text-align: left;
```

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300

**Vertical Alignment:** top, bottom, middle

```
td {
    height: 50px;
    vertical-align: bottom;
}
```

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300

**Table Padding:**

```
th, td {
```

```

padding: 15px;
text-align: left;
}

```

**Horizontal Dividers**

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300

```

th, td {
border-bottom: 1px solid #ddd;
}

```

First Name	Last Name	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300

**Hoverable Table** % មានសកម្មភាពនៅពេលដែលយើងយក mouse ចូលលើ table row

```
tr:hover {background-color: #f5f5f5;}
```

**Striped Tables** % ប្រើសម្រាប់ជាកំណត់តាមលេខ row សែសុ(odd) និង គី(even)

```
tr:nth-child(even) {background-color: #f2f2f2;}
```

```
tr:nth-child(odd) {background-color: #ff0000;}
```

First Name	Last Name	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300

**Table Color** % background-color សម្រាប់ពណ៌ background, color សម្រាប់ពណ៌របស់ font

```

th {
background-color: #4CAF50;
color: white;
}

```

**Responsive Table:**

responsive table គឺជាបង្ហាញទាំងអស់ horizontal scroll bar ត្រូវការណែនាំ screen រាយមកចេញពេលទៅក្នុងករណីថ្មី នៃទំនាក់ទំនងដែលបានរាយការឡើង នៅពេលផ្តល់នូវការនៃក្នុងករណីថ្មី container element(ខាងក្រោម) យុមជាមួយនឹង attribute overflow-x:auto នៅពីក្រោម <table> element។

```
<div style="overflow-x:auto;">
<table>
... table content ...
</table>
</div>
```

First Name	Last Name	Points	Point										
Jill	Smith	50	50	50	50	50	50	50	50	50	50	50	50
Eve	Jackson	94	94	94	94	94	94	94	94	94	94	94	94
Adam	Johnson	67	67	67	67	67	67	67	67	67	67	67	67



ចំណាំ: OS X Lion (on Mac) អ្នកគ្រឿបឱ្យ overflow:scroll

**ឧទាហរណ៍ Table:**

```
<!DOCTYPE html>
<html>
<head>
<style>
#customers {
    font-family: "Trebuchet MS", Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}


```

```
#customers td, #customers th {
```

```
border: 1px solid #ddd;
```

```

padding: 8px;

}

#customers tr:nth-child(even){background-color: #f2f2f2;}

#customers tr:hover {background-color: #ddd;}

#customers th {
  padding-top: 12px;
  padding-bottom: 12px;
  text-align: left;
  background-color: #4CAF50;
  color: white;
}

</style>
</head>
<body>

<table id="customers">
  <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>Berglunds snabbköp</td>
    <td>Christina Berglund</td>
    <td>Sweden</td>
  </tr>

```

Company	Contact	Country
Alfreds Futterkiste	Maria Anders	Germany
Berglunds snabbköp	Christina Berglund	Sweden
Centro comercial Moctezuma	Francisco Chang	Mexico
Ernst Handel	Roland Mendel	Austria
Island Trading	Helen Bennett	UK
Königlich Essen	Philip Cramer	Germany
Laughing Bacchus Winecellars	Yoshi Tannamuri	Canada
Magazzini Alimentari Riuniti	Giovanni Rovelli	Italy

```
</tr>
<tr>
<td>Centro comercial Moctezuma</td>
<td>Francisco Chang</td>
<td>Mexico</td>
</tr>
<tr>
<td>Ernst Handel</td>
<td>Roland Mendel</td>
<td>Austria</td>
</tr>
<tr>
<td>Island Trading</td>
<td>Helen Bennett</td>
<td>UK</td>
</tr>
<tr>
<td>Königlich Essen</td>
<td>Philip Cramer</td>
<td>Germany</td>
</tr>
<tr>
<td>Laughing Bacchus Winecellars</td>
<td>Yoshi Tannamuri</td>
<td>Canada</td>
</tr>
<tr>
<td>Magazzini Alimentari Riuniti</td>
<td>Giovanni Rovelli</td>
<td>Italy</td>
</tr>
<tr>
<td>North/South</td>
<td>Simon Crowther</td>
<td>UK</td>
```

```

</tr>
<tr>
<td>Paris spécialités</td>
<td>Marie Bertrand</td>
<td>France</td>
</tr>
</table>

</body>
</html>

```

លំហាត់៖ ចូរបង្កើត Table ហើយប្រើ CSS format ដែចខាងក្រោម៖

STUDENTS MARK SHEET					
Name	Maths	Science	English	Physics	General Knowledge
David	85	87	88	92	88
Richard	91	81	78	71	74
John	81	86	88	84	92
Tony	84	86	87	82	81
Scott	71	79	82	88	89

### CSS Layout - The display Property

Display property គឺជា css property ដែលមានសារ៖ សំខាន់ខ្លាំងណាស់សម្រាប់ control ទៅលើ web layout។ Display value ដែលត្រួតពិនិត្យមប្រើគឺ block ឬ inline ឬ none។

**Block-level Elements**៖ element ខាងក្រោមគឺជាទុកទៅការប្រើប្រាស់ display value = block

- <div>
- <h1> - <h6>
- <p>
- <form>
- <header>
- <footer>
- <section>

block-level element ជាទុកទៅការប្រើប្រាស់ផ្តើមជាមួយនឹងបន្ទាត់ថ្មី(new line) ហើយនឹងធ្វាក់ចុះក្រោមបើក full width ។

ប្រអាចនិយាយបានថា block-level element គឺវាគ្រូរបង្ហាញ element នឹមួយនេះលើជូរដៃនៅត្រូវ។

```
<body>
```

<div>A display property with a value of "block" results in</div> <div>a line break between the two elements.</div>

```
</body>
```

**Inline Elements**: element ខាងក្រោមតីជាទុទេវាកចប់ display value = inline

- <span>
- <a>
- <img>

inline-level element ជាទុទេវាកចប់ដើមជាមួយនឹងបន្ទាត់ថ្មី(new line) ហើយពេលខ្លះ full width ទើបចុះបន្ទាត់ តែពេលខ្លះមិនទាន់ full width ដើម្បីចុះបន្ទាត់ដើរ។

បុអាចនិយាយបានថា inline-level element គឺវាមាចបង្ហាញ element ជាប្រើប្រាស់លើផ្លូវកំណើយ។

```
<body>
```

<span>A display property with a value of "inline" results in</span> <span>a line is not break between the two elements.</span>

```
</body>
```

```
span {
```

```
    display: block;
```

```
}
```

**Display: none**: display: none; តើខ្សោយប័ត្រវាបានគេប្រើប្រាស់ជាមួយនឹង JavaScript ដើម្បី hide និង show elements ដោយតុំចាំបាច់ deleting និង recreating ឯកសារជាមួយនេះទេ។

**Override The Default Display Value**:

ចំនួចនេះយើងអាចធ្វើការជាសំបុរុយ display default value បានដោយដោយប្រើប្រាស់css ដូចខាងក្រោម

```
li {
```

```
    display: inline;
```

```
}
```

```
span {
```

```
    display: block;
```

```
}
```

```
a {
```

```
    display: block;
```

```

    }
  
```

**ឧទាហរណ៍១៖** Display a list of links as a horizontal menu:

```

<!DOCTYPE html>
<html>
<head>
<style>
li {
  display: inline;
}
</style>
</head>
<body>
  
```

Display a list of links as a horizontal menu:

HTML CSS JavaScript

<p>Display a list of links as a horizontal menu:</p>

```

<ul>
  <li><a href="/html/default.asp" target="_blank">HTML</a></li>
  <li><a href="/css/default.asp" target="_blank">CSS</a></li>
  <li><a href="/js/default.asp" target="_blank">JavaScript</a></li>
</ul>

</body>
</html>
  
```

#### **Hide an Element - display:none or visibility:hidden?**

ដើម្បី hide element លាងមួយតើយើងមានពីរវិធី

- ប្រើ display:none: មិនបន្ថែម space នៅលើ page layout ទេ
 

```

h1.hidden {
  display: none;
}
      
```
- ប្រើ or visibility:hidden: ការបន្ថែមទុកនៅ space នៅលើ page layout ទេ
 

```

h1.hidden {
  visibility: hidden;
}
      
```

ដើម្បីបង្ហាញអក្សរព្រៃ

visibility: visible;

ឧទាហរណ៍២៖ hiding an element:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
h1.hidden {
```

```
    visibility: hidden;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

# This is a visible heading

Notice that the hidden heading still takes up space.

**display: value;**

CSS Display Property

Value	Description	Play it
inline	Displays an element as an inline element (like <span>). Any height and width properties will have no effect	<a href="#">Play it »</a>
block	Displays an element as a block element (like <p>). It starts on a new line, and takes up the whole width	<a href="#">Play it »</a>
contents	Makes the container disappear, making the child elements children of the element the next level up in the DOM	<a href="#">Play it »</a>
flex	Displays an element as a block-level flex container	<a href="#">Play it »</a>
grid	Displays an element as a block-level grid container	<a href="#">Play it »</a>
inline-block	Displays an element as an inline-level block container. The element itself is formatted as an inline element, but you can apply height and width values	<a href="#">Play it »</a>

inline-flex	Displays an element as an inline-level flex container	<a href="#">Play it »</a>
inline-grid	Displays an element as an inline-level grid container	<a href="#">Play it »</a>
inline-table	The element is displayed as an inline-level table	<a href="#">Play it »</a>
list-item	Let the element behave like a <li> element	<a href="#">Play it »</a>
run-in	Displays an element as either block or inline, depending on context	<a href="#">Play it »</a>
table	Let the element behave like a <table> element	<a href="#">Play it »</a>
table-caption	Let the element behave like a <caption> element	<a href="#">Play it »</a>
table-column-group	Let the element behave like a <colgroup> element	<a href="#">Play it »</a>
table-header-group	Let the element behave like a <thead> element	<a href="#">Play it »</a>
table-footer-group	Let the element behave like a <tfoot> element	<a href="#">Play it »</a>
table-row-group	Let the element behave like a <tbody> element	<a href="#">Play it »</a>
table-cell	Let the element behave like a <td> element	<a href="#">Play it »</a>
table-column	Let the element behave like a <col> element	<a href="#">Play it »</a>
table-row	Let the element behave like a <tr> element	<a href="#">Play it »</a>
none	The element is completely removed	<a href="#">Play it »</a>
initial	Sets this property to its default value. <a href="#">Read about INITIAL</a>	<a href="#">Play it »</a>

inherit	Inherits this property from its parent element. <a href="#">Read about INHERIT</a>	
---------	--	--

**visibility: visible|hidden|collapse|initial|inherit;**

## CSS Display Property

Value	Description	Play it
visible	Default value. The element is visible	<a href="#">Play it »</a>
hidden	The element is hidden (but still takes up space)	<a href="#">Play it »</a>
collapse	Only for table rows (<tr>), row groups (<tbody>), columns (<col>), column groups (<colgroup>). This value removes a row or column, but it does not affect the table layout. The space taken up by the row or column will be available for other content.  If collapse is used on other elements, it renders as "hidden"	<a href="#">Play it »</a>
initial	Sets this property to its default value. <a href="#">Read about INITIAL</a>	<a href="#">Play it »</a>
inherit	Inherits this property from its parent element. <a href="#">Read about INHERIT</a>	

**ឧទាហរណ៍៖** full example with The display Property:

```
<h1>This is a visible heading</h1>
<h1 class="hidden">This is a hidden heading</h1>
<p>Notice that the hidden heading still takes up space.</p>
```

**The display Property**

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

**display: none;**

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

**display: inline;**

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. **HELLO WORLD!** Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

**display: block;**

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. **HELLO WORLD!** Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

**display: inline-block;**

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. **HELLO WORLD!** Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {color: red;}
p.ex1 {display: none;}
```

```
p.ex2 {display: inline;}\n\np.ex3 {display: block;}\n\np.ex4 {display: inline-block;}\n\n</style>\n</head>\n<body>\n\n<h1>The display Property</h1>\n\n<h2>display: none:</h2>\n\n<div>\n\nLorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat\npulvinar, at pulvinar felis blandit. <p class="ex1">HELLO WORLD!</p> Vestibulum\nvolutpat tellus diam, consequat gravida libero rhoncus ut.\n\n</div>\n\n<h2>display: inline:</h2>\n\n<div>\n\nLorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat\npulvinar, at pulvinar felis blandit. <p class="ex2">HELLO WORLD!</p> Vestibulum\nvolutpat tellus diam, consequat gravida libero rhoncus ut.\n\n</div>\n\n<h2>display: block:</h2>\n\n<div>\n\nLorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat\npulvinar, at pulvinar felis blandit. <p class="ex3">HELLO WORLD!</p> Vestibulum\nvolutpat tellus diam, consequat gravida libero rhoncus ut.\n\n</div>\n\n<h2>display: inline-block:</h2>\n\n<div>\n\nLorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat\npulvinar, at pulvinar felis blandit. <p class="ex4">HELLO WORLD!</p> Vestibulum\nvolutpat tellus diam, consequat gravida libero rhoncus ut.\n\n</div>\n</body>\n</html>
```

ឧទាហរណ៍ទាំងអស់ full example with The visibility Property:

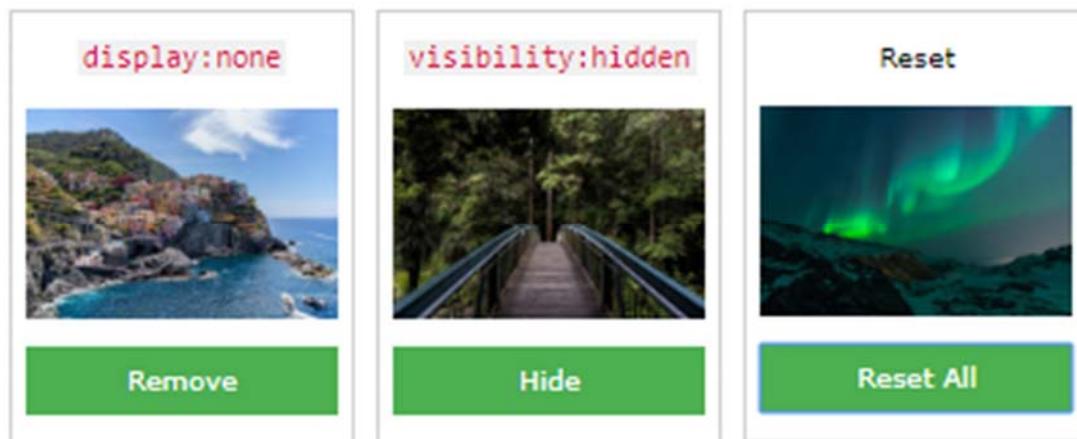
```
<!DOCTYPE html>
<html>
<head>
<style>
h2.a {
    visibility: visible;
}
h2.b {
    visibility: hidden;
}
</style>
</head>
<body>
<h1>The visibility Property</h1>
<h2 class="a">This heading is visible</h2>
<h2 class="b">This heading is hidden</h2>
<p>Notice that the hidden heading still takes up space on the page.</p>
</body>
</html>
```

## The visibility Property

### This heading is visible

Notice that the hidden heading still takes up space on the page.

លំហាត់ទៅត្រូវប្រើបាយជាមួយ javascript



\* Reset : គឺបង្កាញ remove(មិនបន្ថែមលីស) និង hide(បន្ថែមលីស) មកវិញ

**CSS Layout - width and max-width:**

**Width :** សិក្សាប់កំណត់ប្រវែងទីនៃរបស់ element

**Max-Width :** សិក្សាប់កំណត់ប្រវែងទីនៃរបស់ element

**Margin :** set to auto ដើម្បីទ្វាក់ជាមុនក្នុងទីនៃរបស់ element

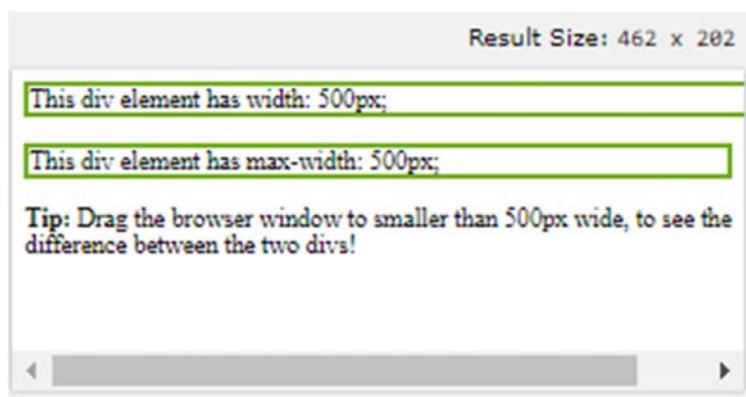
ប្រសិនបើអ្នកប្រើប្រាស់ <div> ហើយប្រើ width ដើម្បីកំណត់នូវប្រវែងទីនៃរបស់វា ខាងក្រោម px រួចរាល់ margin ជាត្រូវការ auto

```
div.ex1 {  
    width:500px;  
    margin: auto;  
    border: 3px solid #73AD21;  
}
```

នៅពេលដែលអ្នកបង្កើមទំហំ screen កាន់តែតួច រហូតដល់តួចជាងទំហំរបស់ element នៅលើ browser នឹងបន្ថែមនូវ horizontal scrollbar ដោយស្វែយប្រវត្តិ។ ដើម្បីក្នុង browser វាបន្ថែម horizontal scrollbar អ្នកអាចប្រើ max-width ជំនួសវិញ ព្រមទាំងបង្កើមទំហំដោយស្វែយប្រវត្តិ។

**ឧទាហរណ៍:** width vs max-width

```
<!DOCTYPE html>  
<html>  
<head>  
<style>  
div.ex1 {  
    width:500px;  
    margin: auto;  
    border: 3px solid #73AD21;  
}  
  
div.ex2 {  
    max-width:500px;  
    margin: auto;  
    border: 3px solid #73AD21;  
}  
</style>  
</head>
```



```

<body>
  <div class="ex1">This div element has width: 500px;</div>
  <br>
  <div class="ex2">This div element has max-width: 500px;</div>
  <p><strong>Tip:</strong> Drag the browser window to smaller than 500px wide, to see
the difference between
the two divs!</p>
</body>
</html>

```

### **CSS Layout - The position Property:**

The position property តើរាបញ្ជាក់ពីប្រភេទនៃ positioning សម្រាប់ element (static, relative, fixed, absolute or sticky)។

- static : static គឺជាតុលាការ default ហើយវាទិន effect ជាមួយនឹងទីតាំង top, bottom, left, និង right properties ទេ។
- relative:
- fixed
- absolute
- sticky

### **សូមមើលបន្ថែម៖**

<https://www.w3schools.com/css/default.asp>

#### **2.2. Advance CSS**

យើងនឹងធ្វើការសិក្សានៃ CSS តួអងកំនើងបុង.

#### **2.3. Using Framework**

យើងនឹងធ្វើការសិក្សានៃ CSS តួអងកំនើងបុង.

<input name="firstname" type="text">

[https://www.w3schools.com/html/html\\_forms.asp](https://www.w3schools.com/html/html_forms.asp)

**Iframe Syntax:**

<iframe src="URL"></iframe>

ឧទាហរណ៍:

Images, music, sound, videos, records, films, animations, និងផ្សេងៗទៀត។

Web pages ដើម្បីបង្កើត multimedia elements ប្រចើន types និង formats ផ្សេងៗគ្នា។