



# Chapter 3: HTML



# Content

- Markup and Rendering
- Syntax of HTML

# Markup and Rendering

- A markup language uses set of annotations describe how a text is to be structured, laid out, or formatted
- HTML is markup language
  - Use tags `<html>`, `<b>`, `<i>`, ...
  - File extension: `html`, `htm`
- Latex is a markup language
  - Use environments, commands: `\begin{equation}`, `\textcolor{...}` ...
- XML, WML ...

# Markup and Rendering

- Rendering = visualize HTML document with web browser
- Browser
  - Is application that is installed on the client machine.
  - reads the HTML source code and displays the page as instructed.
  - Is used to display and navigate in web pages
  - Popular browser: IE, Firefox
- HTML editor
  - Is required for create web page
  - Useful editor: Microsoft FrontPage, Dreamwaver, ...
  - Basic editor: NotePad or any text editor



# HTML syntax

- Structure
- Basic Tags

# Structure of HTML document

## **Example**

```
<HTML>
  <HEAD>
    <TITLE> Welcome to the world of
HTML</TITLE>
  </HEAD>
  <BODY>
    <P>This is going to be real fun </P>
  </BODY>
</HTML>
```

# Structure of HTML document

## ■ HTML Section:

- ☐ Every HTML document must begin with an opening HTML tag and end with a closing HTML tag.
- ☐ `<HTML> ... </HTML>`

## ■ Head section:

- ☐ Optional
- ☐ `<HEAD> ... </HEAD>`
- ☐ Contains document definition
- ☐ Contains page title which is displayed in navigation bar

## ■ Body section

- ☐ Contains what display in the web page

# Basic tags

- HTML uses tags for structuring and formatting the document.
  - Closed tags:
    - `<tag_name> ... </tag_name>`
    - Ex: `<body> .... </body>`
  - Open tags:
    - `<tag_name>...`
    - Ex: `<BR>`
  - Attributes of tags
    - `<tag_name attribute="value">...`
    - Ex: `<body bgcolor="blue"> ... </body>`
  - HTML is not case sensitive
- HTML standard
  - Validate a HTML document
    - <http://validator.w3.org/>

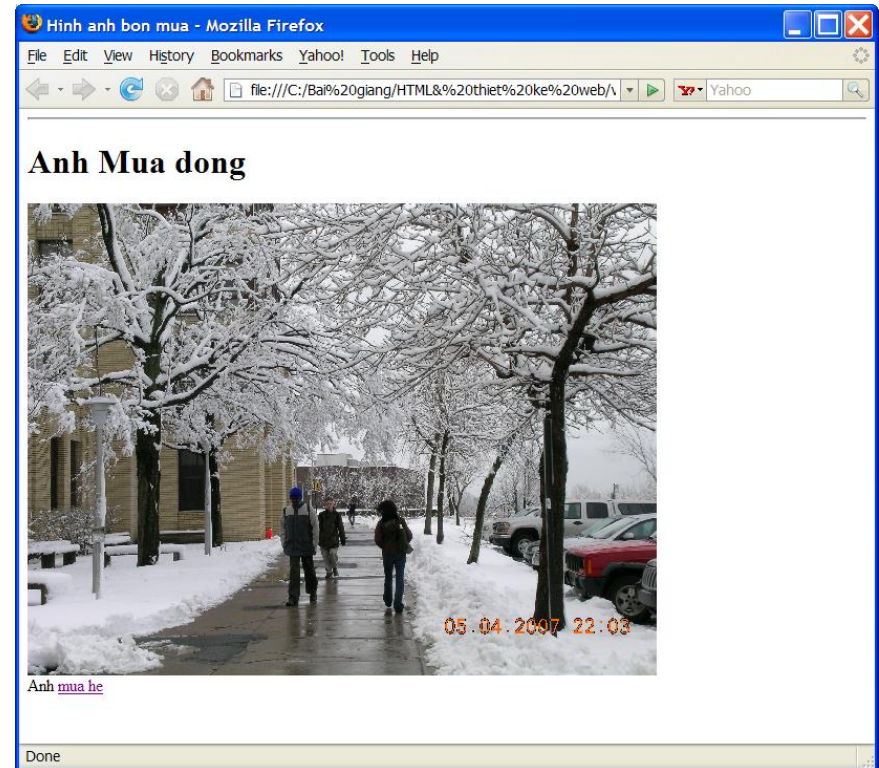


# Tag <title>

## ■ Tag <title>

- ☐ Used inside <head>
- ☐ Displays the title of the page in the navigation

☐ <title>Hinh anh  
bon mua</title>



# Text

- Text is written inside <body>
- Lines are broken automatically
- Extra spaces are not shown
- Ex:

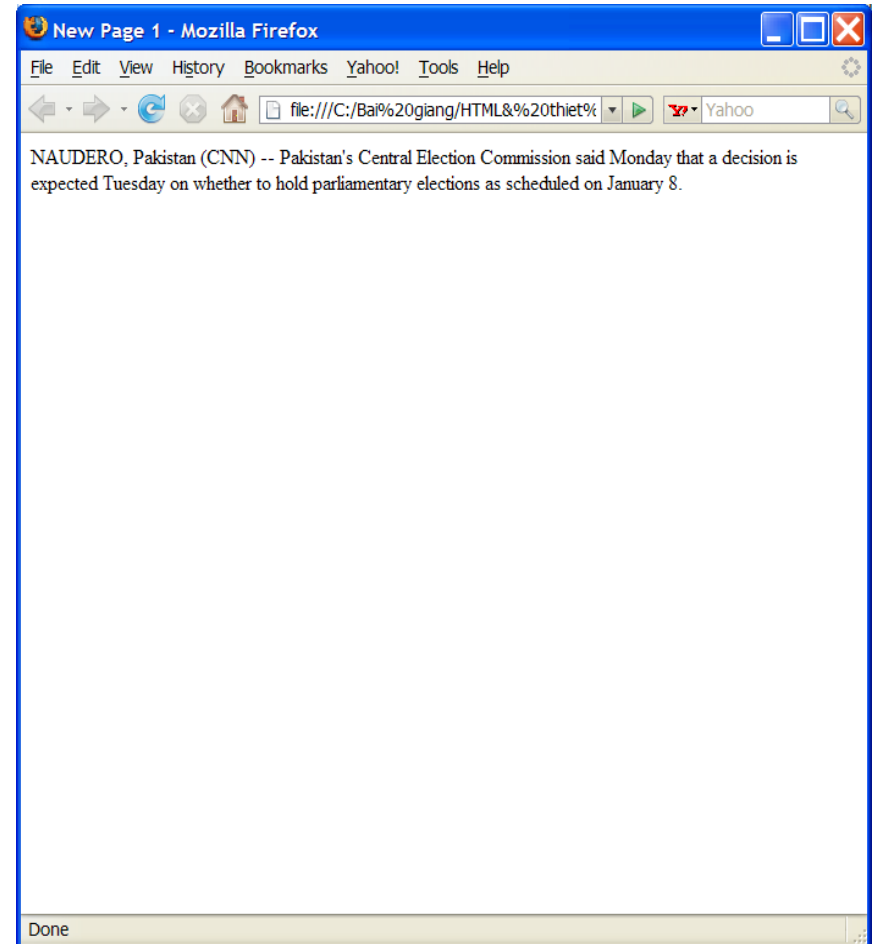
```
<html>
```

```
<body>
```

```
    NAUDERO, Pakistan (CNN) --  
    Pakistan's Central  
    Election Commission said  
    Monday that a decision is  
    expected Tuesday on  
    whether to hold  
    parliamentary elections  
    as scheduled on January  
    8.
```

```
</body>
```

```
</html>
```



# Text formatting tags

- Line break:

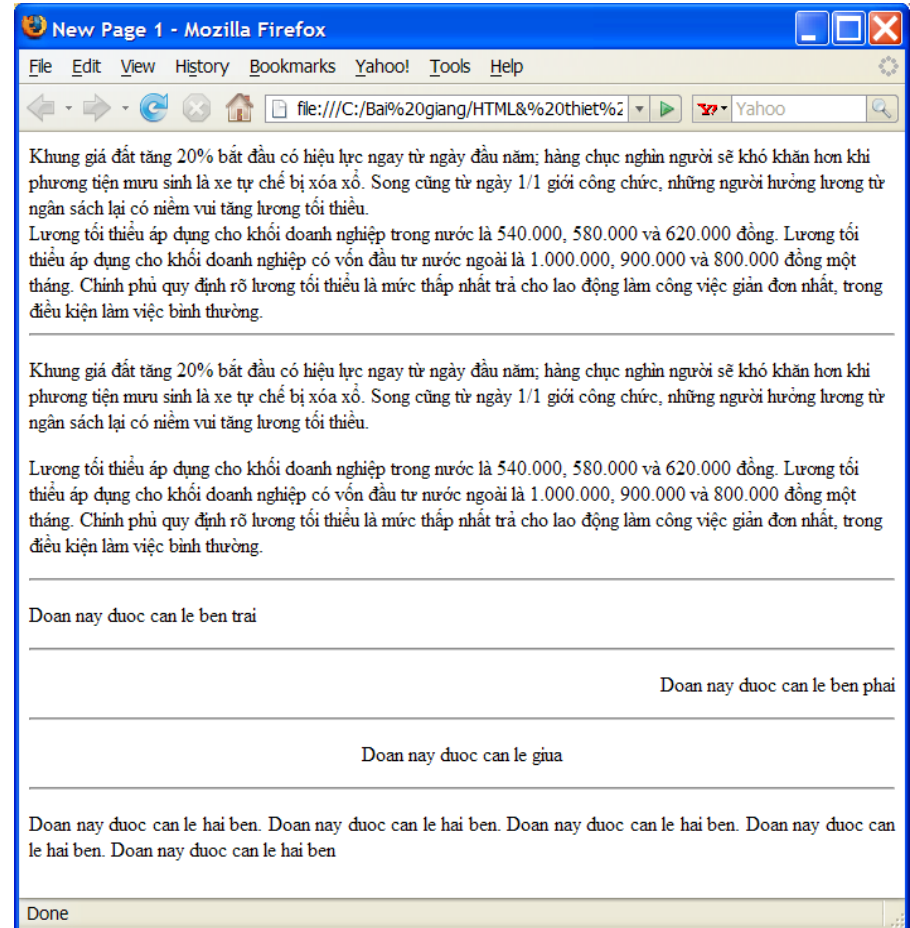
- `<BR>` is added at the position where line is broken

## ■ Paragraph

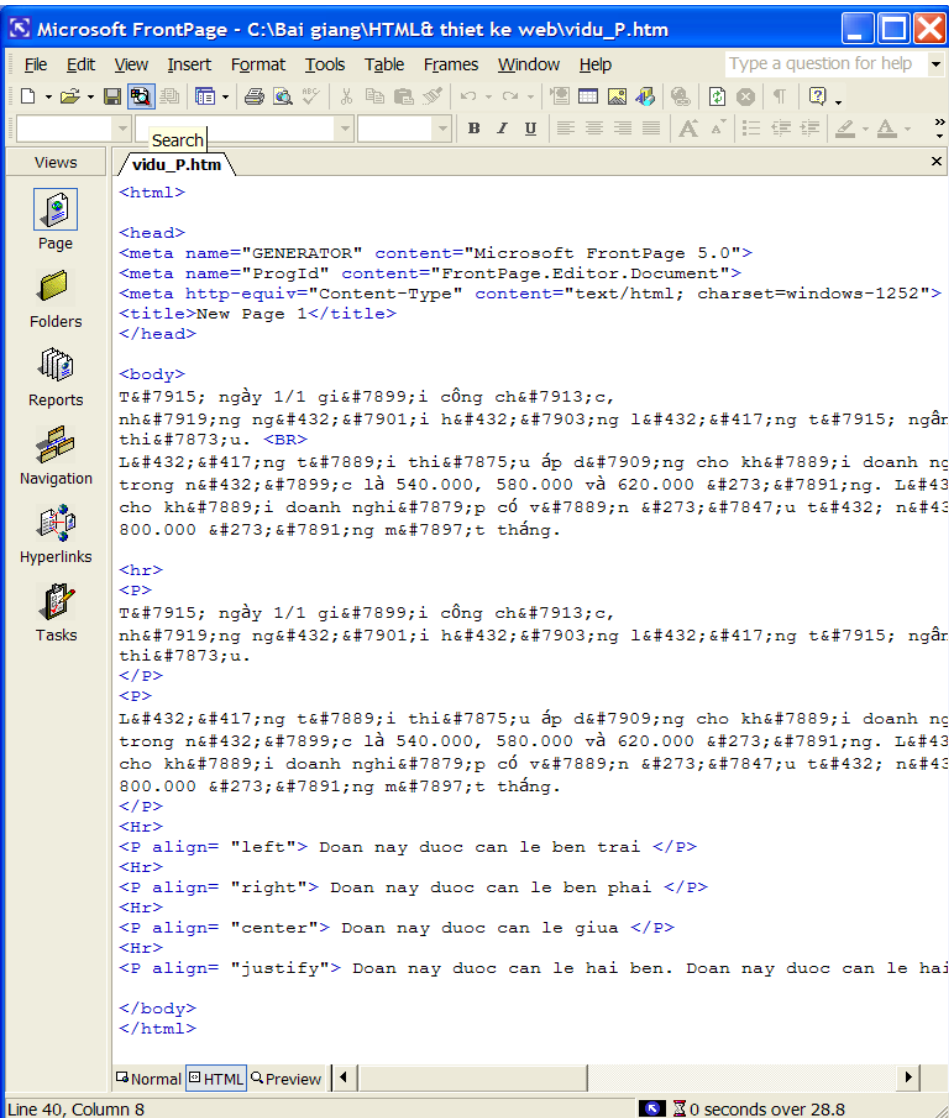
- `<p>` a paragraph `</p>`

- Align a paragraph

- ❑ <p align= "left">
- ❑ <p align= "right">
- ❑ <p align= "center">
- ❑ <p align= "justify">



# Text formatting tags

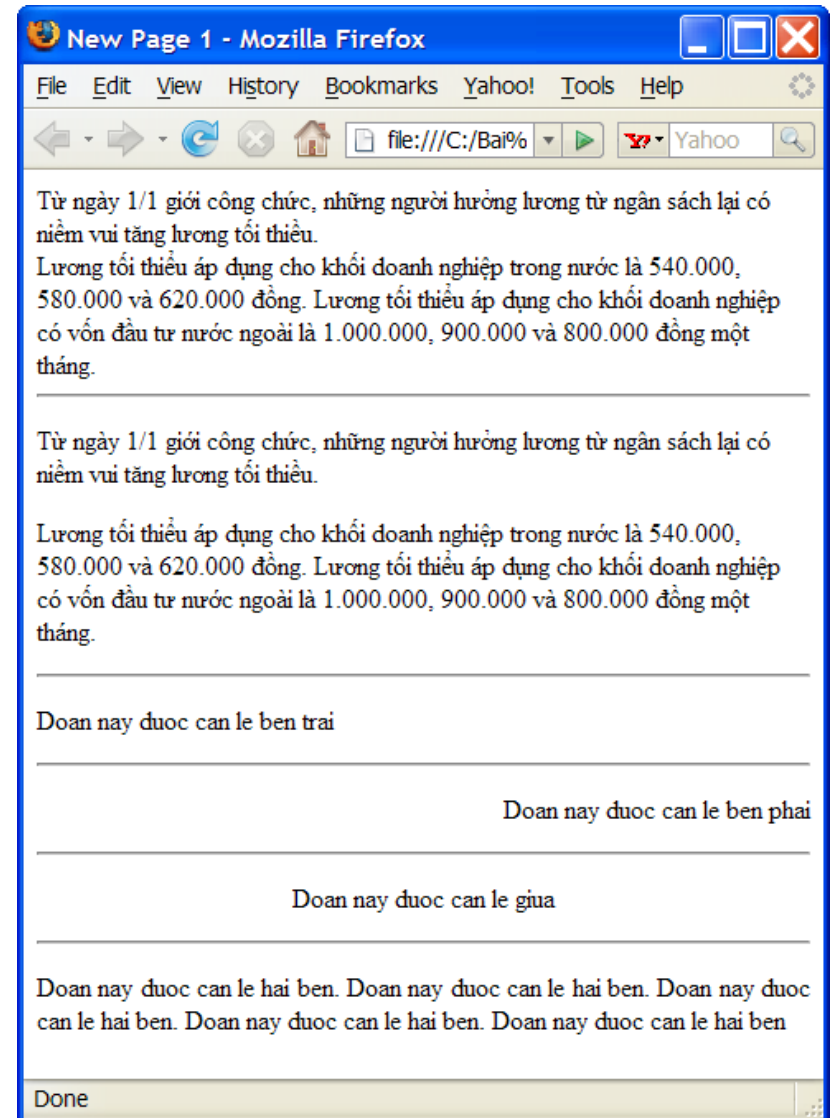


```
<html>

<head>
<meta name="GENERATOR" content="Microsoft FrontPage 5.0">
<meta name="ProgId" content="FrontPage.Editor.Document">
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
<title>New Page 1</title>
</head>

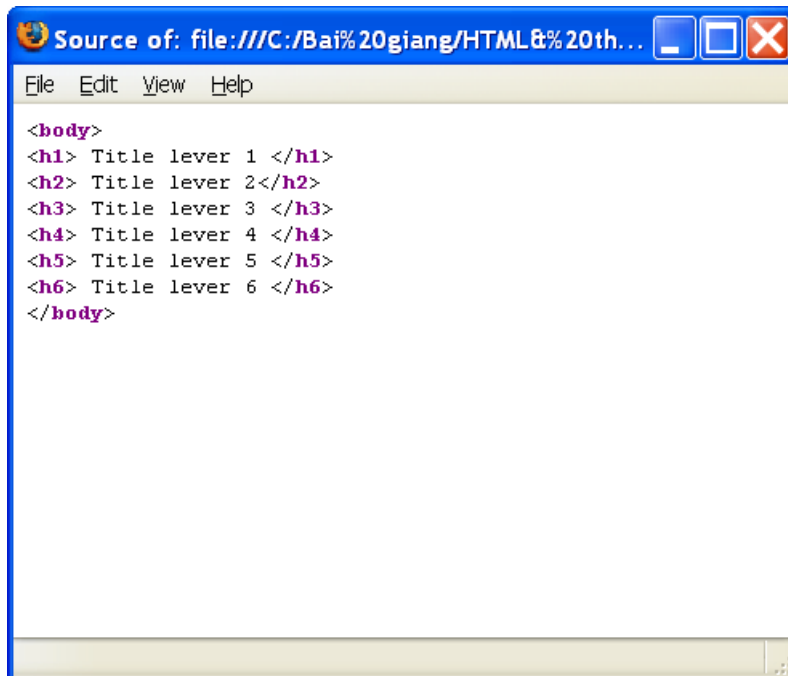
<body>
T&#7915; ngày 1/1 gi&#7889;i công ch&#7913;c,
nh&#7919;ng ng&#432;&#7901;i h&#432;&#7903;ng l&#432;&#417;ng t&#7915; ng&#7873;u. <BR>
L&#432;&#417;ng t&#7889;i thi&#7875;u áp d&#7909;ng cho kh&#7889;i doanh ng
trong n&#432;&#7889;c là 540.000, 580.000 và 620.000 &#273;&#7891;ng. L&#43
cho kh&#7889;i doanh nghi&#7879;p có v&#7889;n &#273;&#7847;u t&#432; n&#43
800.000 &#273;&#7891;ng m&#7897;t th&#7903;ng.

<hr>
<P>
T&#7915; ngày 1/1 gi&#7889;i công ch&#7913;c,
nh&#7919;ng ng&#432;&#7901;i h&#432;&#7903;ng l&#432;&#417;ng t&#7915; ng&#7873;u.
</P>
<P>
L&#432;&#417;ng t&#7889;i thi&#7875;u áp d&#7909;ng cho kh&#7889;i doanh ng
trong n&#432;&#7889;c là 540.000, 580.000 và 620.000 &#273;&#7891;ng. L&#43
cho kh&#7889;i doanh nghi&#7879;p có v&#7889;n &#273;&#7847;u t&#432; n&#43
800.000 &#273;&#7891;ng m&#7897;t th&#7903;ng.
</P>
<hr>
<P align="left"> Doan nay duoc can le ben trai </P>
<hr>
<P align="right"> Doan nay duoc can le ben phai </P>
<hr>
<P align="center"> Doan nay duoc can le giua </P>
<hr>
<P align="justify"> Doan nay duoc can le hai ben. Doan nay duoc can le hai
</P>
</body>
</html>
```



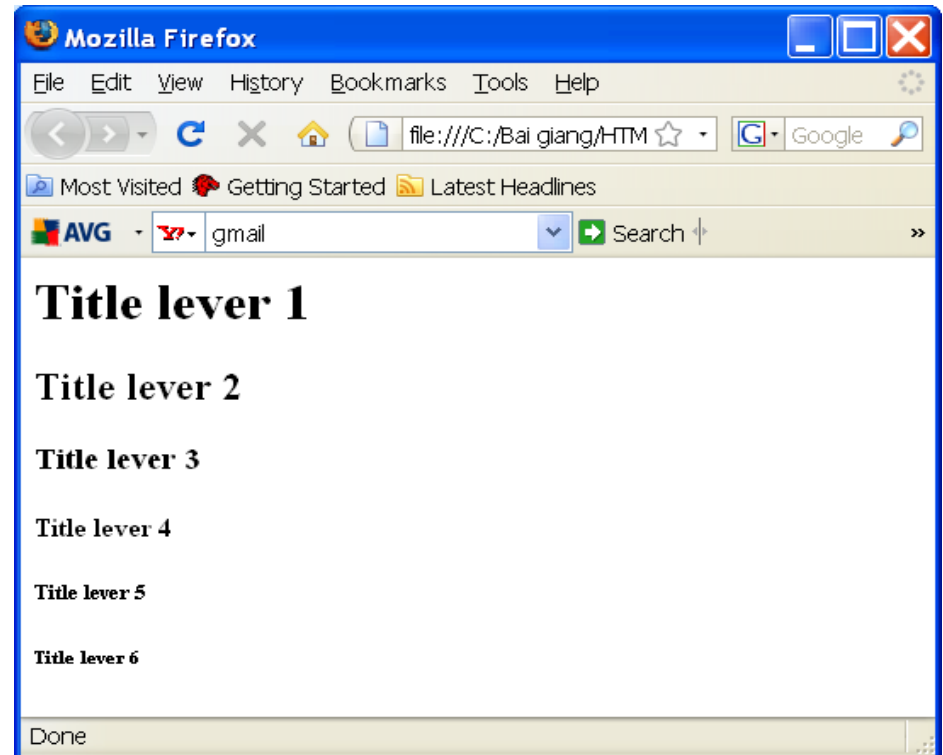
# Text formatting tags

- Heading tags: <h1> ... <h6>



A screenshot of a text editor window titled "Source of: file:///C:/Bai%20giang/HTML&%20th...". The window has a menu bar with "File", "Edit", "View", and "Help". The text area contains the following HTML code:

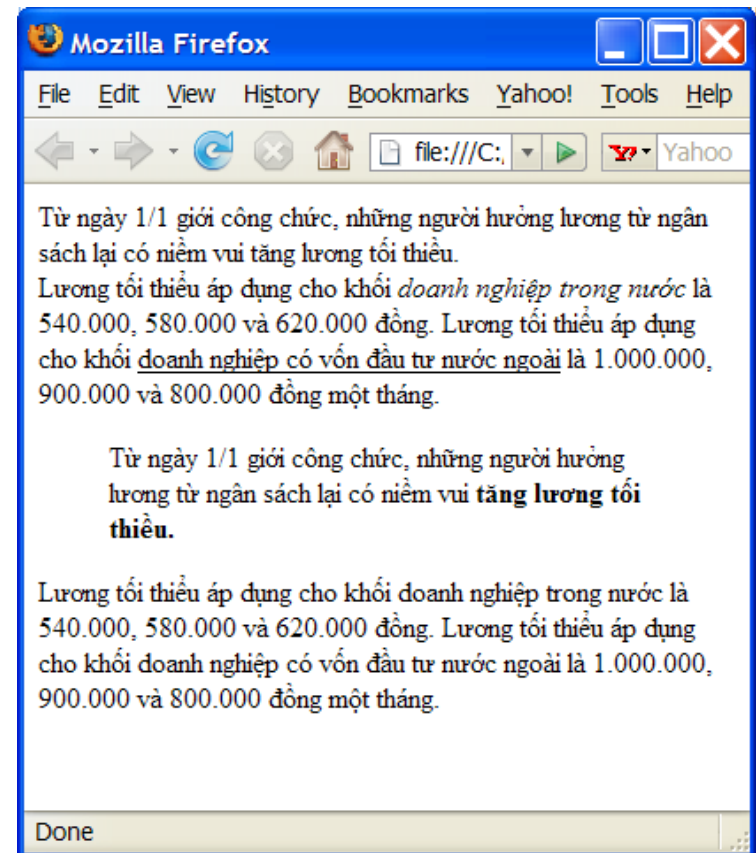
```
<body>
<h1> Title lever 1 </h1>
<h2> Title lever 2</h2>
<h3> Title lever 3 </h3>
<h4> Title lever 4 </h4>
<h5> Title lever 5 </h5>
<h6> Title lever 6 </h6>
</body>
```



# Text formatting tags

## ■ Character formatting tags

- ☐ `<b>...</b>`: bold character
- ☐ `<i>...</i>`: italic character
- ☐ `<u>... </u>`: underline character
- ☐ `<!-- comment -->`
- ☐ `<blockquote> ... </blockquote>`



# Lists

## ■ Ordered list

<ol>

<li>Babies</li>

<li>Women</li>

<li>Cats, Dogs</li>

<li>Men</li>

</ol>

## ■ Unordered list

<ul>

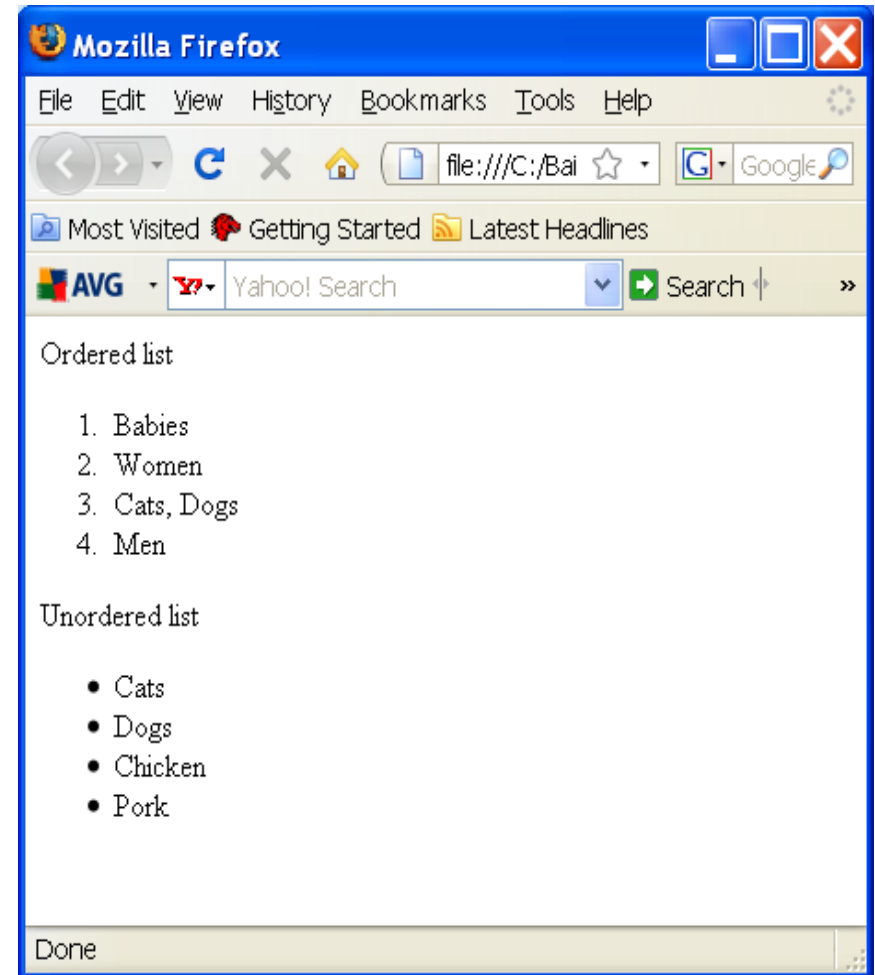
<li>Cats</li>

<li>Dogs</li>

<li>Chicken</li>

<li>Pork</li>

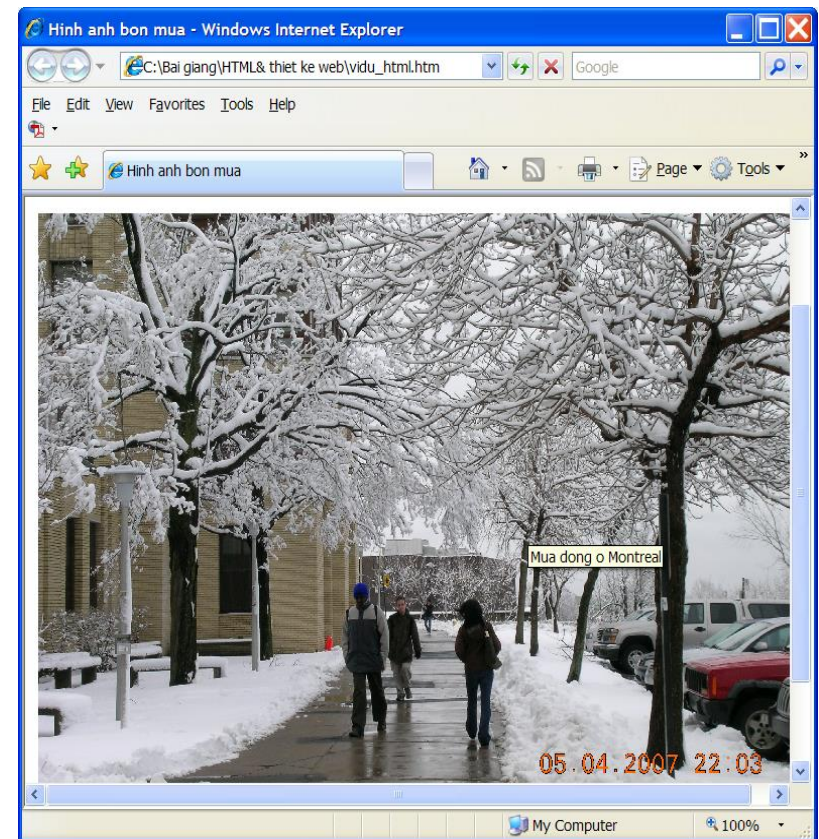
</ul>





# Insert images

- `<IMG SRC="winter.jpg" width="600">`
  - Attributes
    - Src: URL of the image
      - Absolute address
      - Relative address
    - Width:
      - Absolute: Pixel
      - Relative: % in comparison with page size
    - Height:
      - Absolute: Pixel
      - Relative: % in comparison with page size
    - Alt: description of the image that will be displayed when placing mouse on the image





# Table

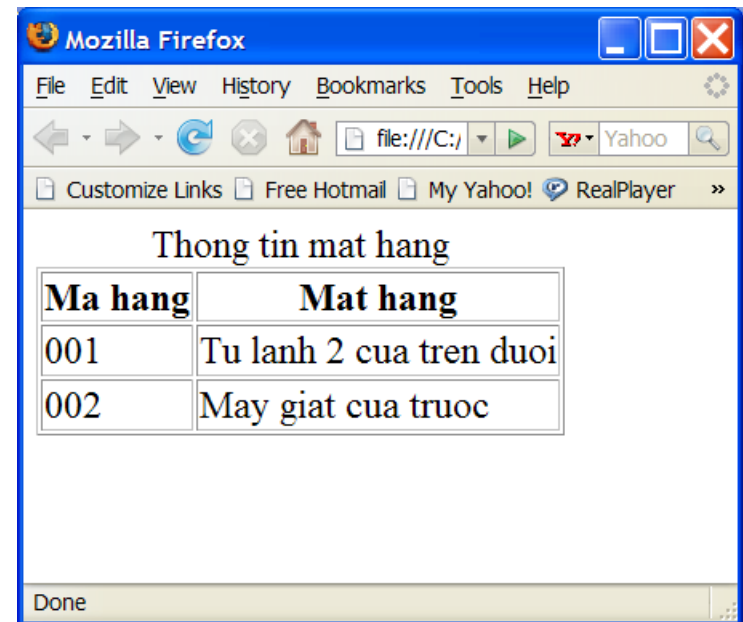
## ■ Tag <table>

### □ Contains rows

- <tr>... </tr>: presents a row
- Each row contains multiples cell of data, each one belongs to a column
  - <td> bla bla bla </td>
- <th>...</th>: the first row is written in bold characters
  - Used for displaying the title of each column

# Table - Example

```
<table border="1">
<caption> Thông tin mat hang </caption>
  <tr>
    <th>Ma hang</th>
    <th>Mat hang</th>
  </tr>
  <tr>
    <td>001</td>
    <td>Tu lanh 2 cua tren duoi
      </td>
  </tr>
  <tr>
    <td>002</td>
    <td>May giat cua truoc </td>
  </tr>
</table>
```



# Background

- Define color of the background

- Background with unified color

- `<body bgcolor="#000000">`
    - `<body bgcolor="rgb(0,0,0)">`
    - `<body bgcolor="black">`

- Background image

- Image is used for background

- `<body background="clouds.gif">`
    - `<body background="http://www.w3schools.com/clouds.gif">`

- Image will be repeated for filling the background if it is smaller than the size of the web page

- Text color

- `<body text="red">`

# Basic colors

- Color name or code can be used alternatively
- Ex:
  - `<body bgcolor = "red" text="white">`
  - `<body bgcolor = "#FF0000">`

By Color Name		By Hex Value	
	black	#000000	
	silver	#C0C0C0	
	gray	#808080	
	white	#FFFFFF	
	maroon	#800000	
	red	#FF0000	
	purple	#800080	
	fuchsia (magenta)	#FF00FF	
	green	#008000	
	lime	#00FF00	
	olive	#808000	
	yellow	#FFFF00	
	navy	#000080	
	blue	#0000FF	
	teal	#008080	
	aqua (cyan)	#00FFFF	

# Hyperlink

## ■ External hyperlink

### □ Hyperlink with another

- `<a href="url"> Displayed Text</a>`
- Href: URL of the web page that will be linked to
- Text within tags `<a>` will be normally underlined and when it is clicked on, the page in href will be displayed

## ■ Relative address

- `<a href="../link1.html">A page</a>`

## ■ Absolute address

- `<a href="http://fit.hut.edu.vn/link1.html">Another page</a>`

# Hyperlink

## ■ Internal link

- Link to a section of the same page

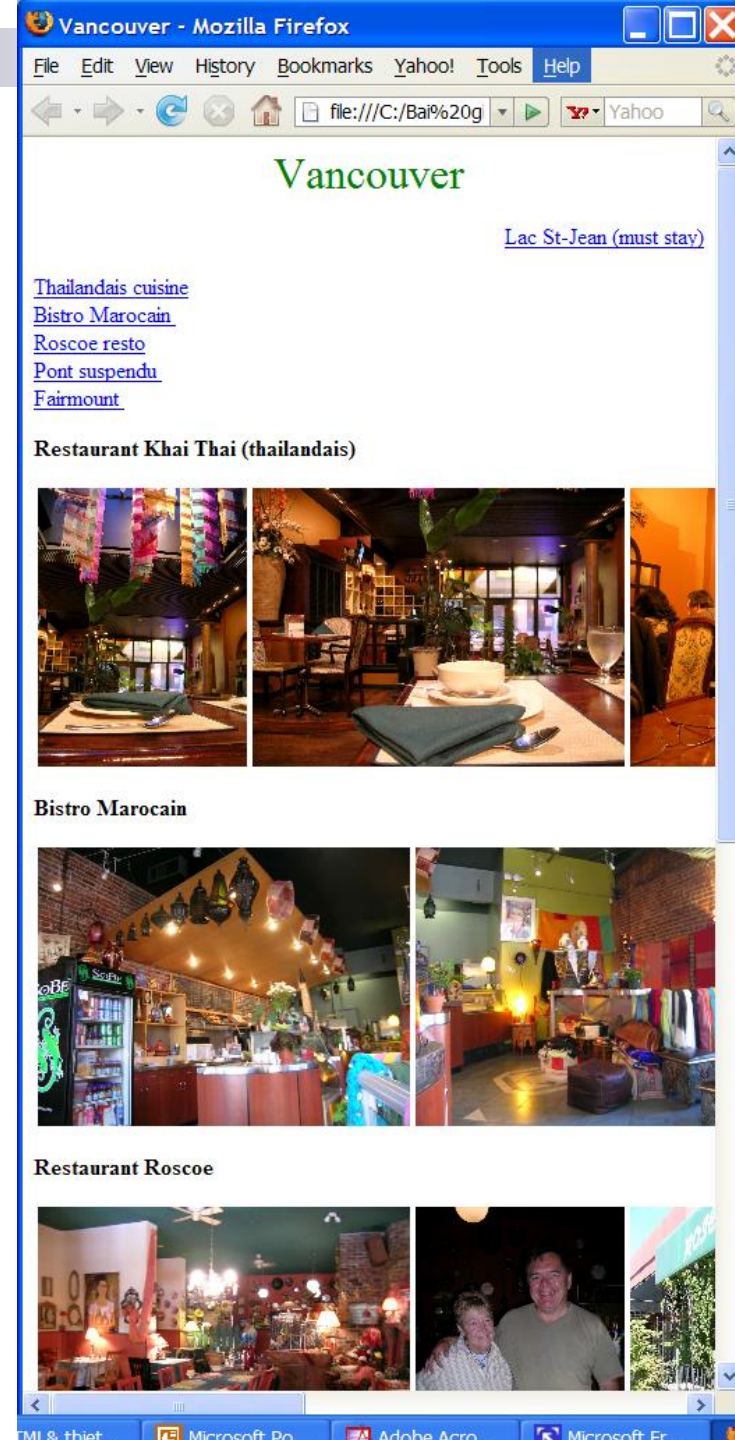
- Assign a name to the section  
→Bookmark it

```
<a name="rosco">Restaurant  
Roscoe </a>
```

- Make the link

```
<a href="#rosco"> Roscoe  
resto</a>
```

- Example



# Hyperlink

## ■ Attribute target

- Define the position where the linked page will be displayed

- `<a href="url" target="pos"> ...</a>`

- `pos="_blank"`

- Display the linked page in a new window
  - `<a href="http://www.w3schools.com/" target="_blank">Visit W3Schools!</a>`

- `pos="_self"`

- Display the linked page in the current window
  - `<a href="http://www.w3schools.com/" target="_self">Visit W3Schools!</a>`

# Synthesis example

VnExpress - Xa hoi - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.vnexpress.net/Vietnam/Xa-hoi/

Customize Links Free Hotmail My Yahoo! RealPlayer Windows Marketplace Windows Media Windows Yahoo! Bookmarks

NGÂN HÀNG NGOẠI THƯƠNG VIỆT NAM  
**Dietcombank**

giá trị lớn khuyến mãi tặng quà

**Thành lập phòng giao dịch Tây Hồ vào ngày 18/12/2007**

Thu nhỏ - Đóng

Trang nhất  
**Xã hội**  
Giáo dục  
Nhịp điệu trẻ  
Lối sống  
Du lịch  
Du học  
Thế giới  
Kinh doanh  
Văn hóa  
Thể thao  
Pháp luật  
Đời sống  
Khoa học  
Vi tính  
Ôtô - Xe máy  
Bạn đọc viết  
Tâm sự  
Rao vặt  
Cười

Search Go

**TRẠNG CỬU ĐIỂM THI**

2007

Ngôi sao  
Số hoá  
Game thủ  
Phim ảnh  
Đô thị  
Việc làm

RSS  
Font Vietnam  
Liên hệ quảng cáo

**Trang Xã hội** Thứ bảy, 12/1/2008, 08:51 GMT+7

**Rau lớn nhanh không kịp hái nhờ 'thần dược'**

Các vùng trồng rau, quả ngoại thành Hà Nội, Hà Tây, đang xôn xao về công dụng "thần kỳ" của loại thuốc kích thích tăng trưởng có nguồn gốc Trung Quốc. Chỉ vài ngày sử dụng, ruộng rau cần cối sẽ trở nên mỡ màng, mọc nhanh không kịp hái.

> **Hà Nội lập đoàn kiểm tra rau 'bẩn'**

**Chủ tịch UBND thành phố Cần Thơ bị thôi chức**

Ủy ban Kiểm tra TƯ vừa buộc thôi chức Chủ tịch với ông Võ Thanh Tòng và Phó chủ tịch thường trực UBND thành phố Cần Thơ với ông Phạm Phước Như. Ban thường vụ Thành ủy Cần Thơ phải điểm trách nhiệm, xử lý các đơn vị, cá nhân đã tham mưu dẫn đến các sai phạm.

**Sà lan đâm nhau, hơn 100.000 lít xăng dầu tràn ra sông**

Chiều 11/1, Công an xã Tân Chánh, huyện Cần Đước (Long An) cho biết, hai chiếc sà lan đã đâm vào nhau trên sông Vàm Cỏ Đông làm tràn ra khoảng 40.000 lít xăng và 70.000 lít dầu, gây ô nhiễm nặng.

**Sai phạm hơn 63 tỷ đồng mua sắm thiết bị dạy học**

Kết quả thanh tra ở 41 tỉnh, thành cho thấy, nhiều thiết bị dạy học được mua có chất lượng thấp, thiết bị đo lường phục vụ các môn tự nhiên như nhiệt kế, ampe kế... đều thiếu chính xác, ảnh hưởng đến chất lượng dạy và học.

> **Tiêu cực liên quan đến đại biểu QH Mạc Kim Tôn**

**Đốc hữu bao để đóng tiền ăn cho con**

Miễn phí cho 500 khách hàng đăng ký đầu tiên  
**WESTERN BANK**

**CUỘC SỐNG THẬT Ý NGHĨA với CÔNG VIỆC MƠ ƯỚC!**

**Nagakawa** ĐIỀU HÒA KHÔNG KHÍ

Bạn không phải lo lắng về sản phẩm FERGO

**Hội thảo Định cư CANADA**

**HABUBANK** Gửi tiết kiệm nhận quà

**BANK OF THE YEAR**  
Ngân hàng Việt Nam Của năm 2007

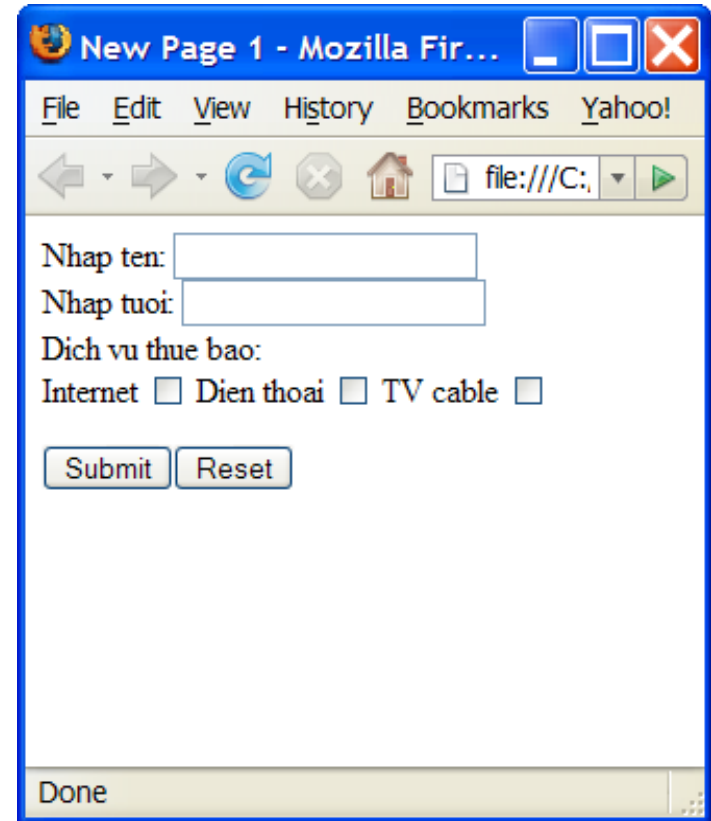
**DCmax TẶNG NGAY! 500.000 đến 1.500.000**

Done



# Form

- Form allows to interact with users
- A form contains labels and corresponding data fields
  - Label describes the meaning of the data field
- A program can be called when the data fields are submitted



The screenshot shows a Mozilla Firefox browser window titled "New Page 1 - Mozilla Fir...". The address bar displays "file:///C:,". The form contains the following elements:

- Labels: "Nhap ten:", "Nhap tuoi:", "Dich vu thue bao:"
- Input fields: Two text boxes for "Nhap ten:" and "Nhap tuoi:", and four checkboxes for "Internet", "Dien thoai", "TV cable", and an unlabeled checkbox.
- Buttons: "Submit" and "Reset"

The status bar at the bottom shows "Done".

# Form

## ■ Form tag

- `<form method =“...” action =“...” name =“...”>`

...

`</form>`

- Method:

- Get:

- Data will be added in clear in the URL and displayed in the address bar of the navigator
    - The length of data is not over 255 characters

- Post:

- Data is hidden
    - The length of data is unlimited

- Action: address of the program in server that will be executed

- CGI, APS, PHP

- Dynamic web on server side

# Form

- Label

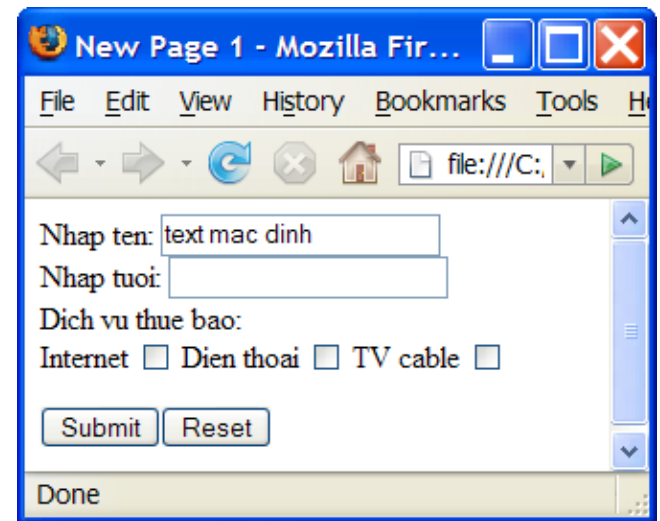
- ☐ `<label for="ten">Enter your name:</label>`
- ☐ Label for the data field where user needs to fill name

- Data field types

- ☐ Text
- ☐ Password
- ☐ Hidden
- ☐ Checkbox
- ☐ Radio
- ☐ Select
- ☐ Select multiple
- ☐ Textarea
- ☐ Submit
- ☐ reset

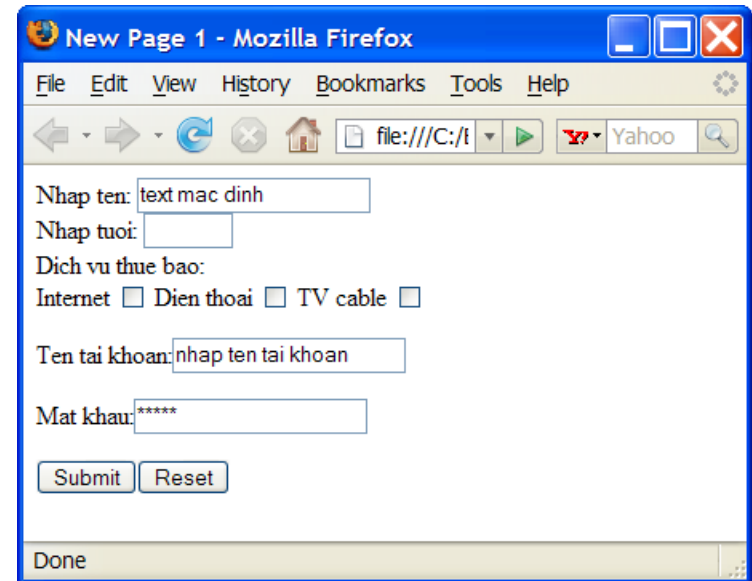
# Text

- Many data field types can be defined by tag `<input>`
  - `<input type =“...” name =“...” id=“...” value =“...”>`
  - Type: text, password, hidden, button, checkbox, radio
- Using “input” for defining a text box
- `<input type=“text” value =“text mac dinh” name=“ten” size =“20”>`
  - Size= width of the text box
  - Value= value displayed in the text box



# Password, Hidden

- `<input type="password" value="secret" name="p" size="20">`
  - Characters are replayed by \*
- `<input type="hidden" name="name" value="James Smith" size="20">`
  - The field is not displayed in the page
  - Hidden input is used for transferring parameters from form to server.



# Checkbox

- Checkbox allows to make multiples choices in a defined set of options
- Each checkbox is a option
- Option in the same sets must have the same name.

```
<input type="checkbox" name="service" id="internet" value="1">
```

```
<input type="checkbox" name="service" id="telephone" value="2">
```

```
<input type="checkbox" name="service" id="cable" value="3">
```

- internet <--> dichvu[0]  
telephone <--> dichvu[1]  
cable <--> dichvu[2]

- Check an option

- ☐ <input type="checkbox" name="cam\_ket" value="OK" checked>

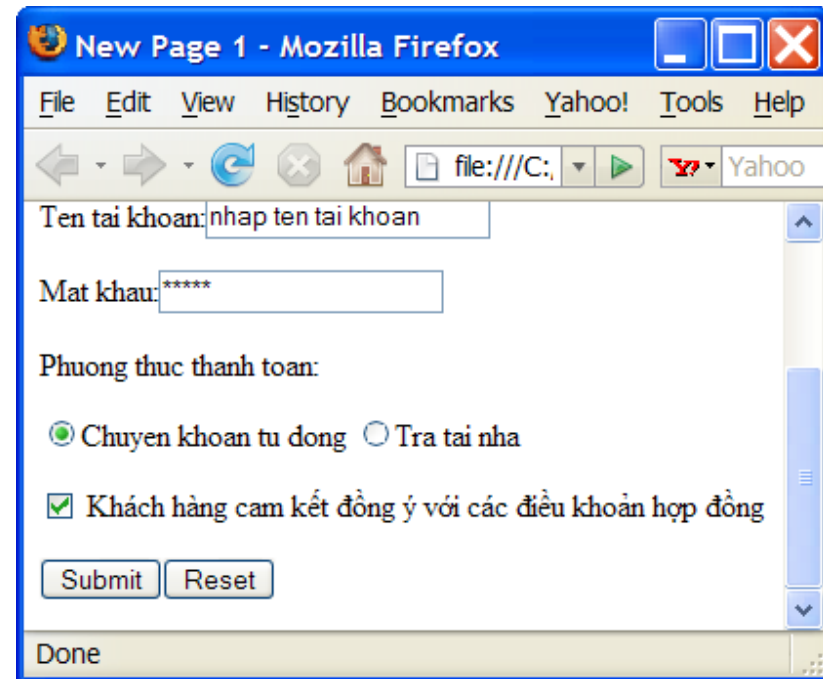
The screenshot shows a Mozilla Firefox browser window titled "New Page 1 - Mozilla Firefox". The address bar displays "file:///C:/..." and the page content is a web form in Vietnamese. The form includes input fields for "Nhập tên:" (containing "text mac dinh"), "Nhập tuổi:" (empty), "Tên tài khoản:" (containing "nhap ten tai khoan"), and "Mat khau:" (containing "\*\*\*\*\*"). Below these are three checkboxes for "Dịch vụ thuê bao:" (Internet, Dien thoai, TV cable), all of which are unchecked. At the bottom, there is a checked checkbox for "Khách hàng cam kết đồng ý với các điều khoản hợp đồng" and two buttons labeled "Submit" and "Reset". The status bar at the bottom of the browser window shows "Done".

# Radio

- Radio button allows to choose an unique choice among pre-defined options.
- Options in the same sets must have the same name.

```
<input type="radio" name="payment" value="automatic" checked> Chuyen  
khoan tu dong
```

```
<input type="radio" name="payment" value="home"> Tra tai nha
```



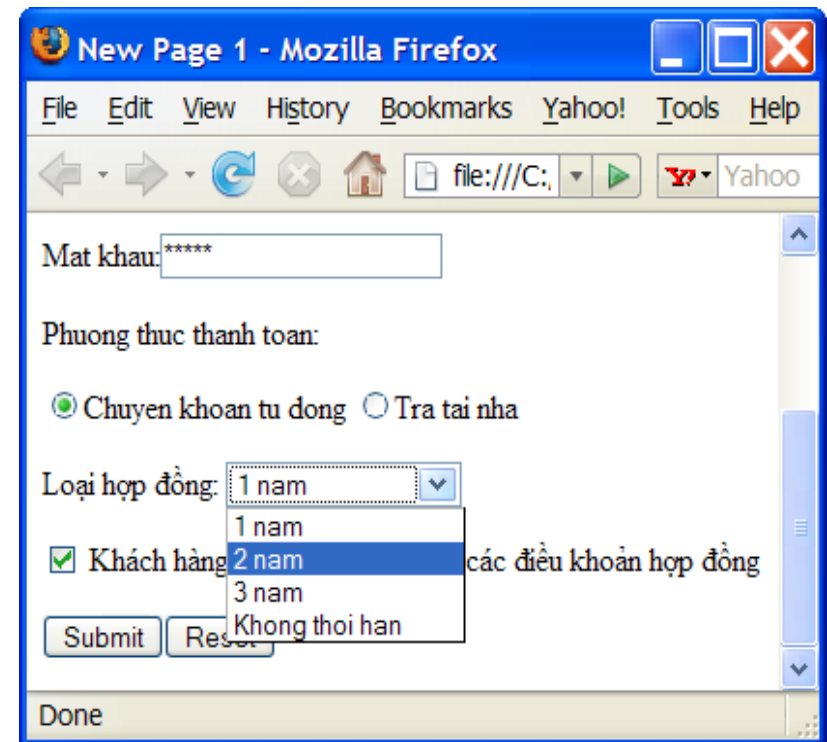
# Select

- `<Select>` allows to make a list of options with unique choice in a pop up list
- Each option is presented by `<option>`

```
<select name="...">
  <option> ... </option>
  <option> ... </option>
  <option> ... </option>
  <option> ... </option>
</select>
```

## ■ Example

```
<select size="1" name="hopdong">
  <option>1 nam</option>
  <option>2 nam</option>
  <option>3 nam</option>
  <option>Khong thoi han</option>
</select>
```





# Select multiple

- Select multiple allows making a list of options with multiple simultaneous choices
- Select multiple is created by adding attribute multiple in <select>

```
<select name="..." multiple>  
  <option> ... </option>  
  <option> ... </option>  
  <option> ... </option>  
  <option> ... </option>  
</select>
```

# Textarea

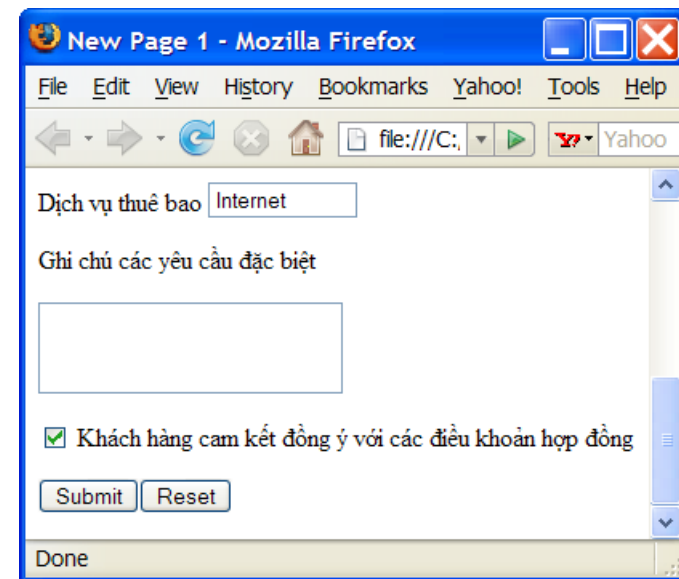
- `<Textarea>` creates a a region that may compose of multiple lines to enter.

```
<textarea name="S1"
  rows="2" cols="20">
```

.....

```
</textarea>
```

- cols: the width of the area in number of characters
- Rows: number of rows



# Submit, reset, button

## ■ Submit

- Button for submitting data fields in a form to a program specified in action attributes of <form>
  - <input type="submit" value="Submit">

## ■ Reset

- Make data fields in form back to their initial states
- <input type="reset" value="Reset">

## ■ <Button>

- Allows to create a general purpose button
  - <button name="B3">Xem hop dong</button>
- Type “button” of <input> allows to make equivalent button
  - <input type="button" name = “B3” value=“Xem hop dong”>

# Example

New Page 1 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C:/Ba%20giang/HTML&% Yahoo

Customize Links Free Hotmail My Yahoo! RealPlayer Windows Marketplace

Nhap ten: text mac dinh

Nhap tuoi:

Dich vu thue bao:

Internet ☐ Dien thoai ☐ TV cable ☐

Ten tai khoan: nhap ten tai khoan

Mat khau:\*\*\*\*\*

Phuong thuc thanh toan:

☒ Chuyen khoan tu dong ☐ Tra tai nha

Loại hợp đồng: 1 nam

Dịch vụ thuê bao Internet

Ghi chú các yêu cầu đặc biệt

☐ Khách hàng cam kết đồng ý với các điều khoản hợp đồng

Xem hop dong

Submit Reset

Done

Liste des paramètres - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.iro.umontreal.ca/~ Yahoo

Customize Links Free Hotmail My Yahoo! RealPlayer Windows Marketplace

## Liste des paramètres transmis

**name** = text mac dinh

**tuoi** =

**T1** = nhap ten tai khoan

**T2** = bimat

**thanhtoan** = tudong

**hopdong** = 1 nam

**S1** =

**my\_param** = bimat1

**copyright** = ON

**B1** = Submit

Done

# Ví dụ

**Yahoo! Registration - Mozilla Firefox**


File Edit View History Bookmarks Tools Help

https://edit.yahoo.com/registration?.intl=us&new=1&.dc Yahoo

Customize Links Free Hotmail My Yahoo! RealPlayer Windows Marketplace Windows Media Windows

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**YAHOO!** Yahoo! - Help

 **Hi there!**

We'll get you set up on Yahoo! in three easy steps! Just answer a few simple questions, select an ID and password, and you'll be all set.

Already have an ID or Mail address?  
[Sign In](#)

[Forget your password or Yahoo! ID?](#)

I prefer content from Yahoo! U.S. in English

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**1. Tell us about yourself...**

My Name  First Name  Last Name

Gender - Select One -

Birthday - Select Month -  Day  Year

I live in Vietnam

---

**2. Select an ID and password**

Yahoo! ID and Email  @ yahoo.com [Check](#)

Password  Password Strength

Re-type Password

---

**3. In case you forget your ID or password...**

Alternate Email

Security Question - Select One -


Your Answer

---

**Just a couple more details...**

Type the code shown

[Try a different image](#)



Do you agree? ☐ I have read and agree to the [Yahoo! Terms of Service](#) and [Yahoo! Privacy Policy](#), and to receive important communications from Yahoo! electronically.

For your convenience, these documents will be emailed to your Yahoo! Mail account.

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Done edit.yahoo.com