

## Introduction to Web & HTML

## Topics

- Web Terminology
- HTML
  - What is HTML
  - Parts of an HTML Document
  - HTML Tags
    - Required
    - Common

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## Internet vs. WWW

- Most people use the two terms interchangeably but they are in fact different.
- The Internet is a vast, international network, made up of computers and the physical connections (wires, routers, etc.) allowing them to communicate.
- The World Wide Web (WWW or just the Web) is a collection of software that spans the Internet and enables the interlinking of documents and resources.
  - Provides a way of accessing information on the Internet.
- For more information about the history of the Internet and WWW:

<http://en.wikipedia.org/wiki/Internet>

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## Web Servers and Clients

- A **Web server** is a computer that is programmed to send files to browsers on other computers connected to the Internet.
- The **Web browser**, such as Firefox or Internet Explorer, is the **client** that sends a request for a Web page.
- The Web server answers the request and delivers the requested page to the browser so you can view it.

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## HTTP

- Stands for HyperText Transfer Protocol
- Allows computers on the WWW to communicate with one another.
- Handles the “request” sent to the Web server and the “response” received from the Web server.

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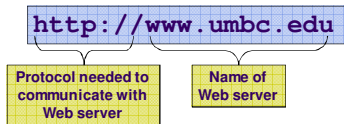
## Web Server-Client Diagram



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## URLs

- Stands for Uniform Resource Locator
- Also called the Web page's address
- You typically type it into your Web browser's location bar when you want to view a Web page



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## HTML

- Stands for HyperText Markup Language
- Used to create a Web page
- Made up of tags that specify the structure of the document (this section is a heading, this section is a paragraph, etc..)
- An excerpt from a sample HTML document:

```
<html>
<head>
  <title>Bob's Web page</title>
</head>
<body>
  <h1>This is my first Web page</h1>
```

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## HTML Tags

- Most HTML tags work in pairs. There is an opening and a closing tag. For example:
 

```
<p>Some content here.</p>
```
- The `<p>...</p>` tag displays a paragraph
- `<p>` opens the paragraph (opening tag)
- `</p>` closes the paragraph (closing tag)
- "Some content here." will be displayed on the page

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## Self-closing Tags

- Some HTML tags are self closing. For example:
 

```
<br />
```
- The `<br />` tag will display a line break.

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## Required Tags

- All HTML documents should have `html`, `head` and `body` tags, along with the `DOCTYPE` identifier.
  - `!DOCTYPE` -- Tells the browser which set of standards the page adheres to
  - `<html>...</html>` -- Surrounds the contents of the entire page
  - `<head>...</head>` -- Lists the identification information on the page, such as the title
  - `<title>...</title>` -- Gives the name of the page that appears in the top of the browser window
  - `<body>...</body>` -- Frames the content of the page to be displayed in the browser

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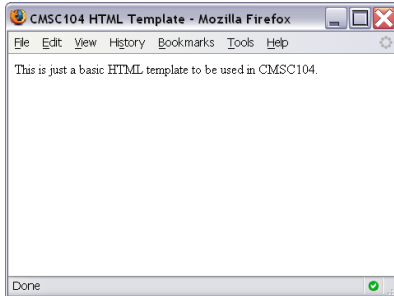
## Basic HTML Template

```
<!DOCTYPE html>
<html>
  <head>
    <title>CMSC104 HTML Template</title>
  </head>
  <body>
    This is just a basic HTML template to be used in CMSC104.
  </body>
</html>
```

Example file: template.html

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## Basic HTML Template Screenshot



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## Some Common HTML Tags and Their Meanings

- `<p>...</p>` -- Creates a paragraph
- `<br />` -- Adds a line break
- `<hr />` -- Separates sections with a horizontal rule
- `<h1>...</h1>` -- Displays a heading (h1-h6)
- `<!--...-->` -- Inserts a comment
- `<ol>...</ol>` -- Creates an ordered list
- `<ul>...</ul>` -- Creates an unordered list
- `<img />` -- Inserts an image into the document
- `<a>...</a>` -- Inserts a link into the document

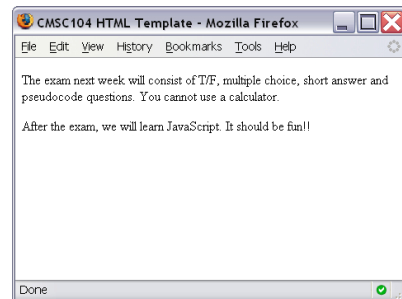
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## Paragraph Example

```
<p>
The exam next week will consist of T/F,
multiple choice, short answer and pseudocode
questions. You cannot use a calculator.
</p>
<p>
After the exam, we will learn JavaScript.
It should be fun!!
</p>
```

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## Paragraph Example Screenshot



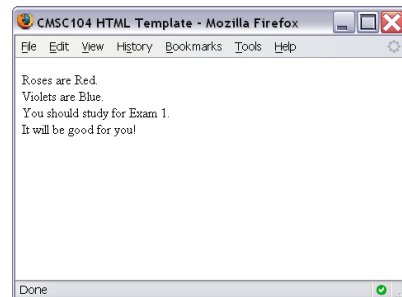
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## Line Break Example

```
<p>
Roses are Red. <br />
Violets are Blue. <br />
You should study for Exam 1. <br />
It will be good for you!
</p>
```

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## Line Break Example Screenshot

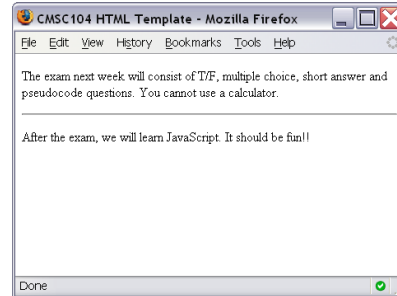


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## Horizontal Rule Example

```
<p>
The exam next week will consist of T/F,
multiple choice, short answer and
pseudocode questions. You cannot use a
calculator.
</p>
<hr />
<p>
After the exam, we will learn JavaScript.
It should be fun!!
</p>
```

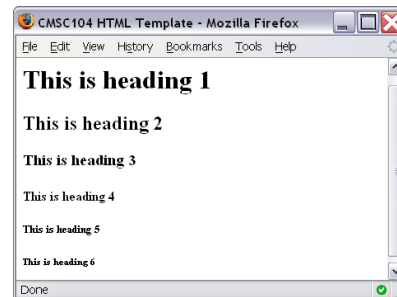
## Horizontal Rule Example Screenshot



## Heading Example

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

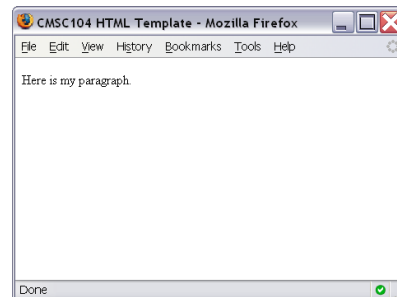
## Heading Example Screenshot



## Comment Example

```
<!-- This is just some sample html
to illustrate the use of a
comment -->
<p>
Here is my paragraph.
</p>
<!-- Here is another comment -->
```

## Heading Example Screenshot

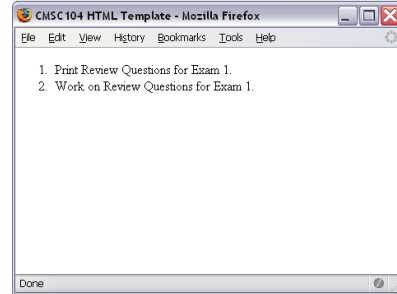


## Ordered List Example

```
<ol>
  <li>Print Review Questions for Exam 1.</li>
  <li>Work on Review Questions for Exam 1.</li>
</ol>
```

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## Ordered List Screenshot



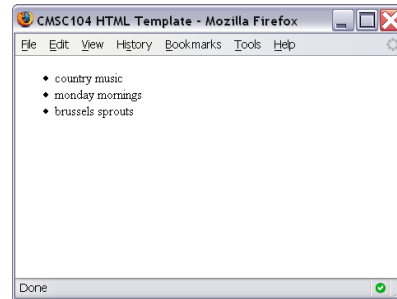
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## Unordered List Example

```
<ul>
  <li>country music</li>
  <li>monday mornings</li>
  <li>brussels sprouts</li>
</ul>
```

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## Unordered List Screenshot



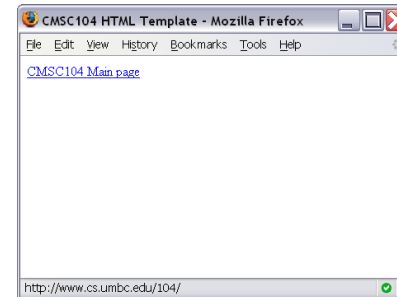
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## Link Example

```
<a href="http://www.cs.umbc.edu/104/">CMSC104 Main page</a>
```

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## Link Screenshot



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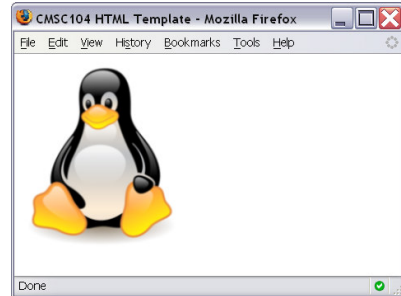
## Image Example

```

```

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## Image Screenshot



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## Working Example

- To see an example page that uses all of the tags we discussed today, visit

<http://userpages.umbc.edu/~dblock/lecture6.html>

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