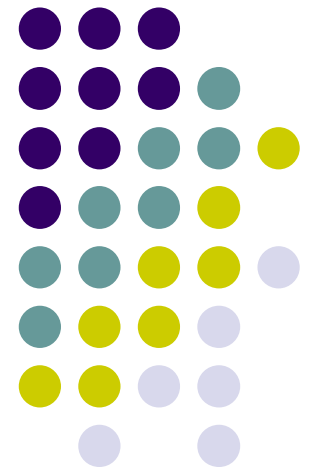


# Introduction to Web & HTML

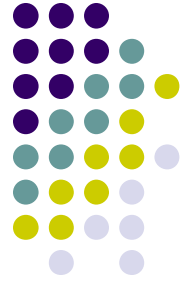
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# Topics

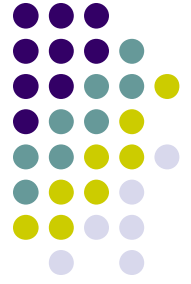
- Web Terminology
- HTML
  - What is HTML
  - Parts of an HTML Document
  - HTML Tags
    - Required
    - Common



# 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>



# Web Servers and Clients

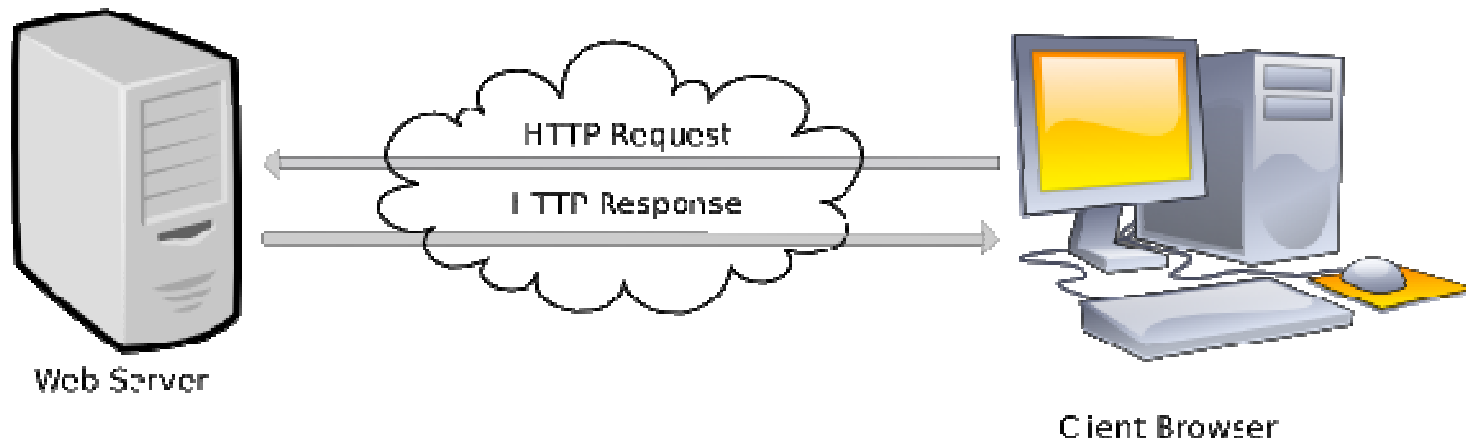
- A **Web server** is a computer that is programmed to send files to browsers on other computers connected to the Internet.
- The **Web browser**, such as Firefox or Internet Explorer, is the **client** that sends a request for a Web page.
- The Web server answers the request and delivers the requested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

# 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.

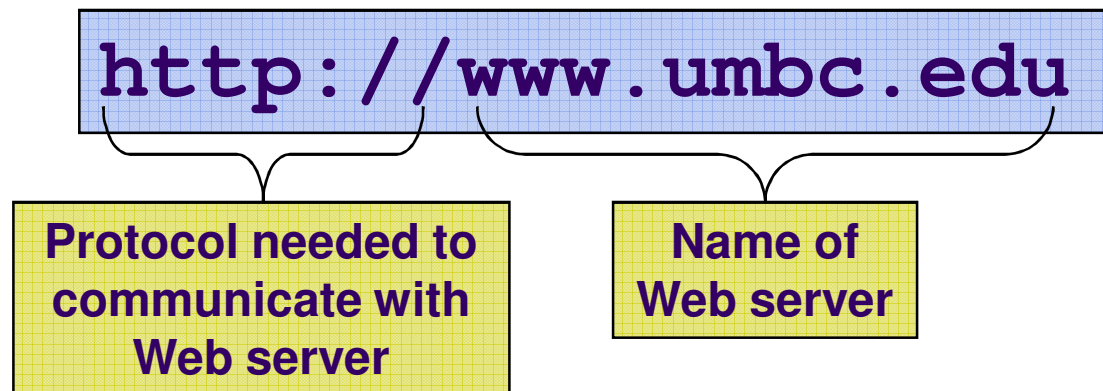
# Web Server-Client Diagram





# 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





# 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>
```





# 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

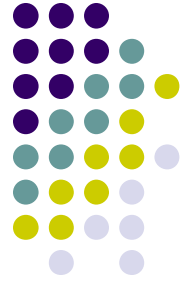


# Self-closing Tags

- Some HTML tags are self closing. For example:

`<br />`

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



# 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

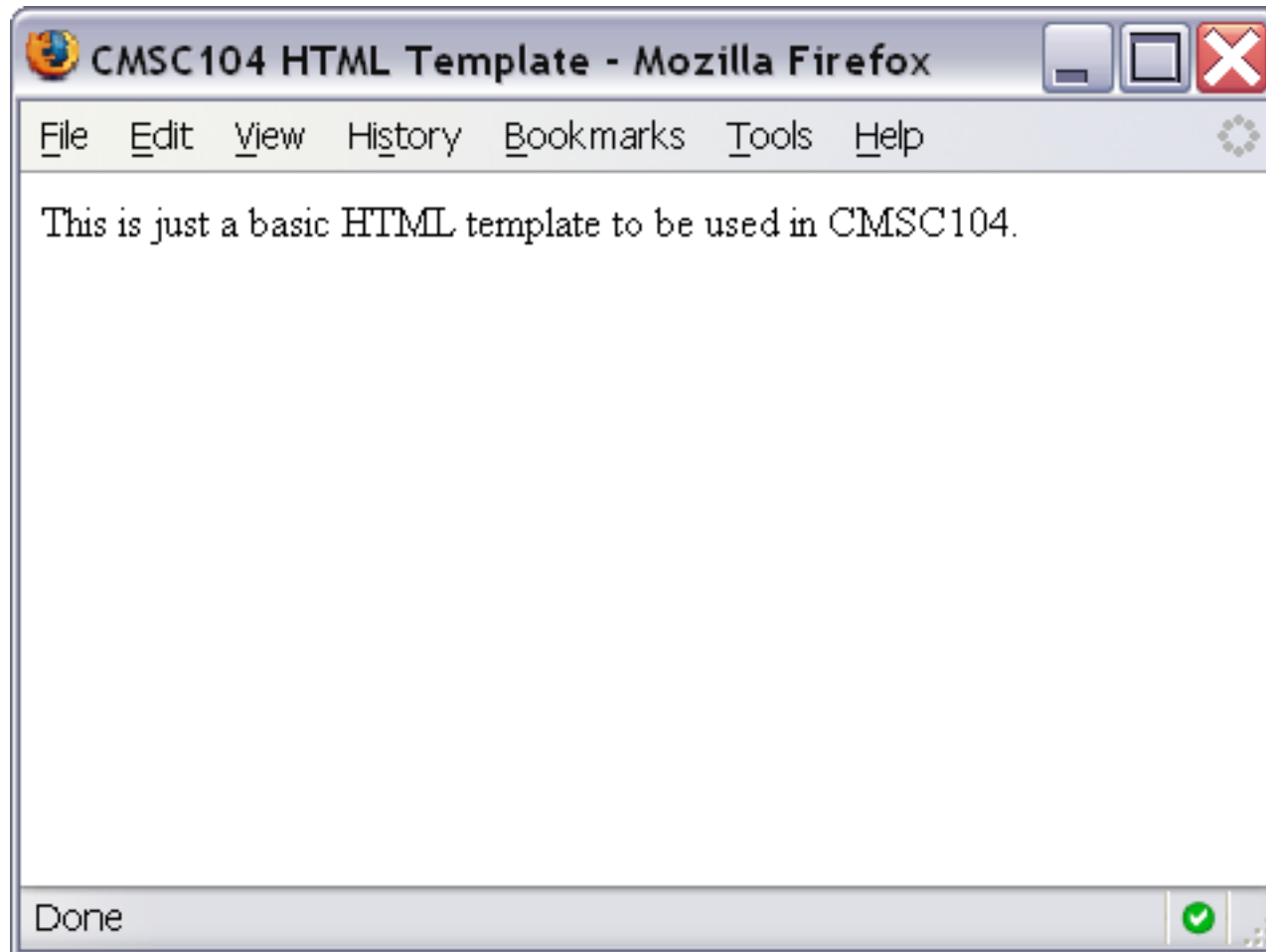
# Basic HTML Template



```
<!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*

# Basic HTML Template Screenshot

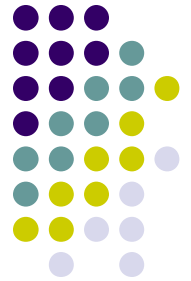


# Some Common HTML Tags and Their Meanings



- `<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

# Paragraph Example



```
<p>
```

```
The exam next week will consist of T/F,  
multiple choice, short answer and pseudocode  
questions. You cannot use a calculator.
```

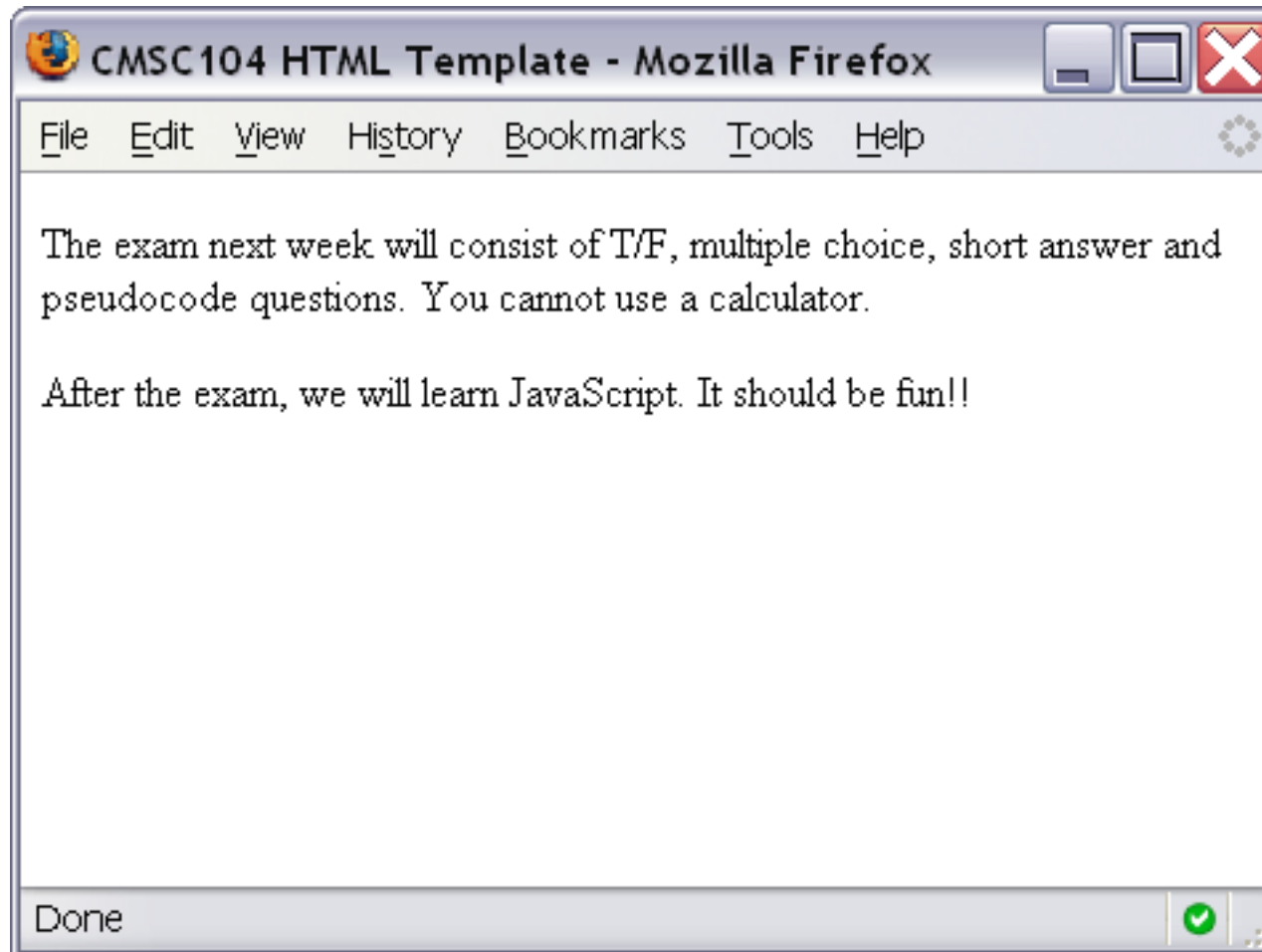
```
</p>
```

```
<p>
```

```
After the exam, we will learn JavaScript.  
It should be fun!!
```

```
</p>
```

# Paragraph Example Screenshot



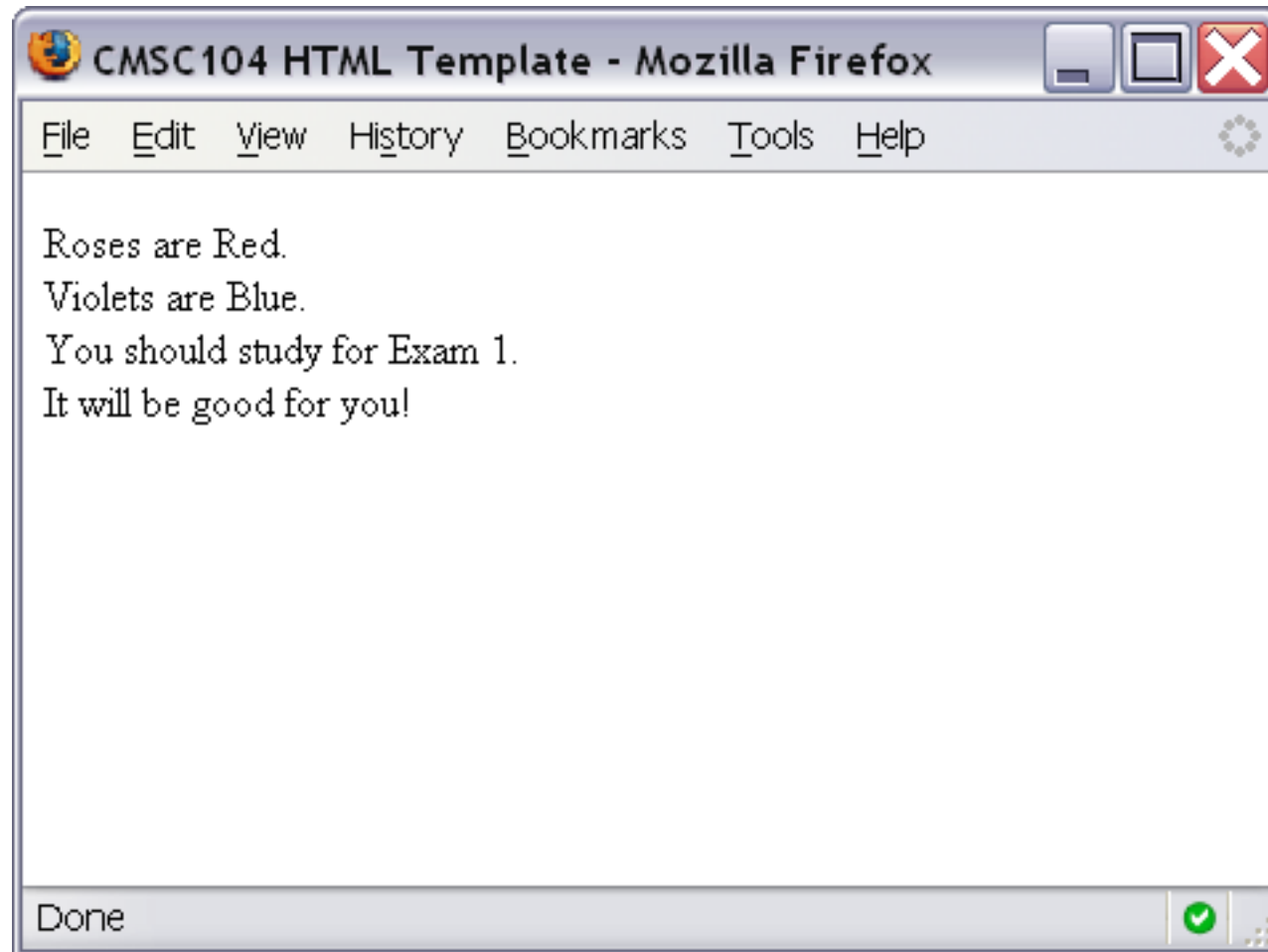


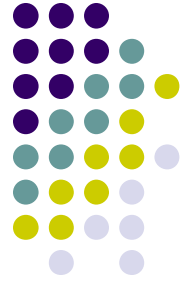


# Line Break Example

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

# Line Break Example Screenshot





# 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>
```

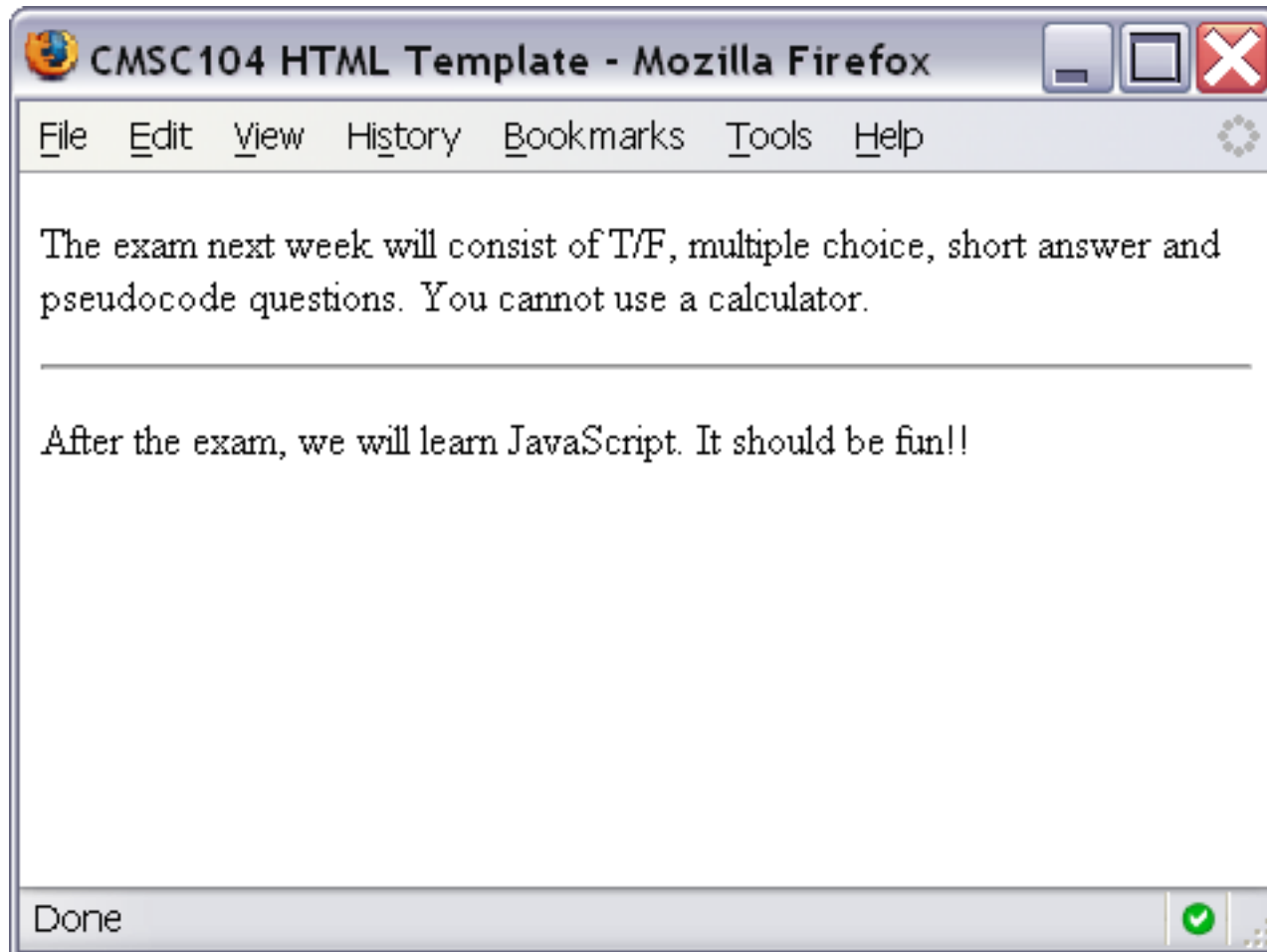
```
<hr />
```

```
<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>
```

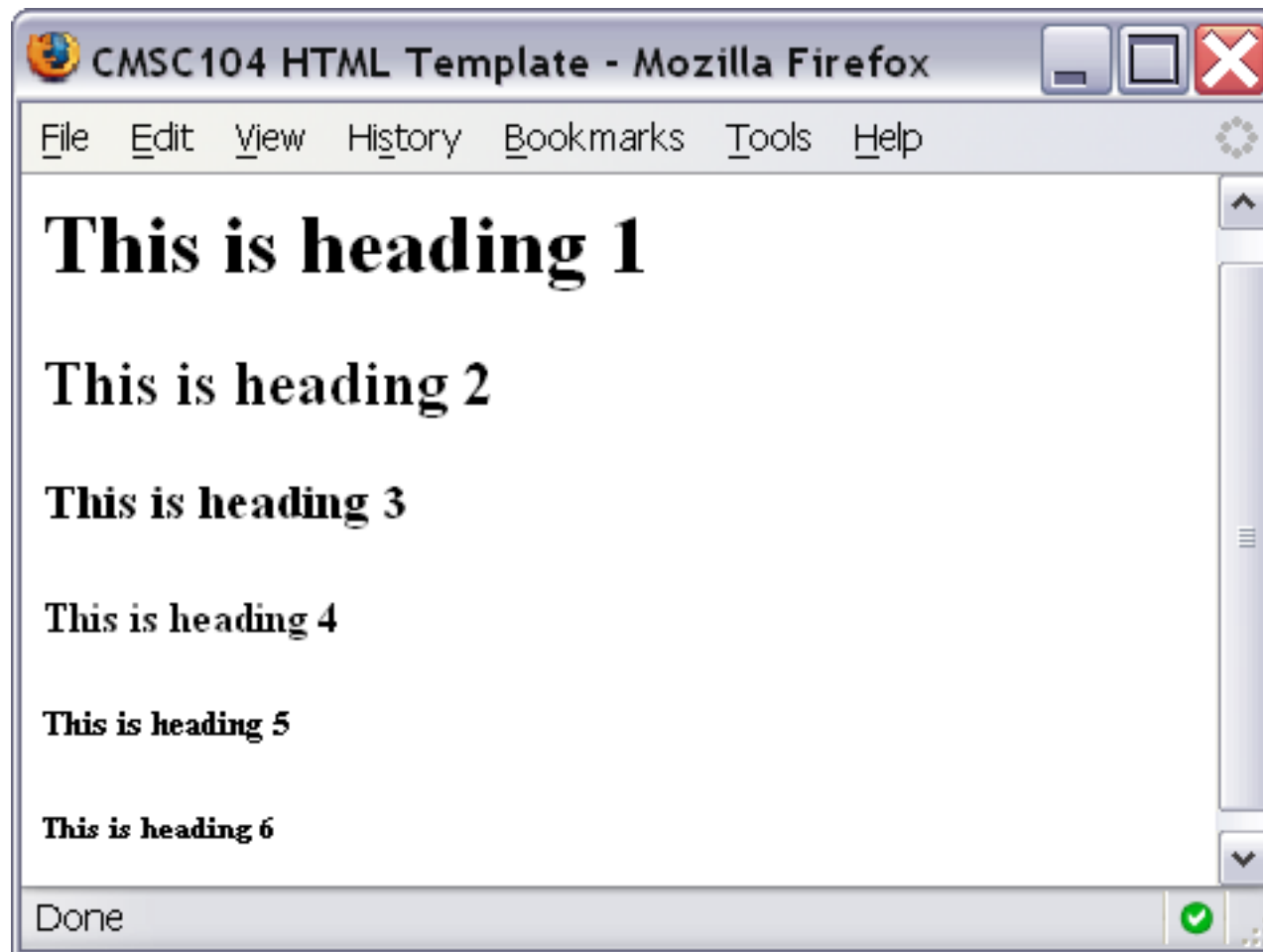
```
<h3>This is heading 3</h3>
```

```
<h4>This is heading 4</h4>
```

```
<h5>This is heading 5</h5>
```

```
<h6>This is heading 6</h6>
```

# Heading Example Screenshot

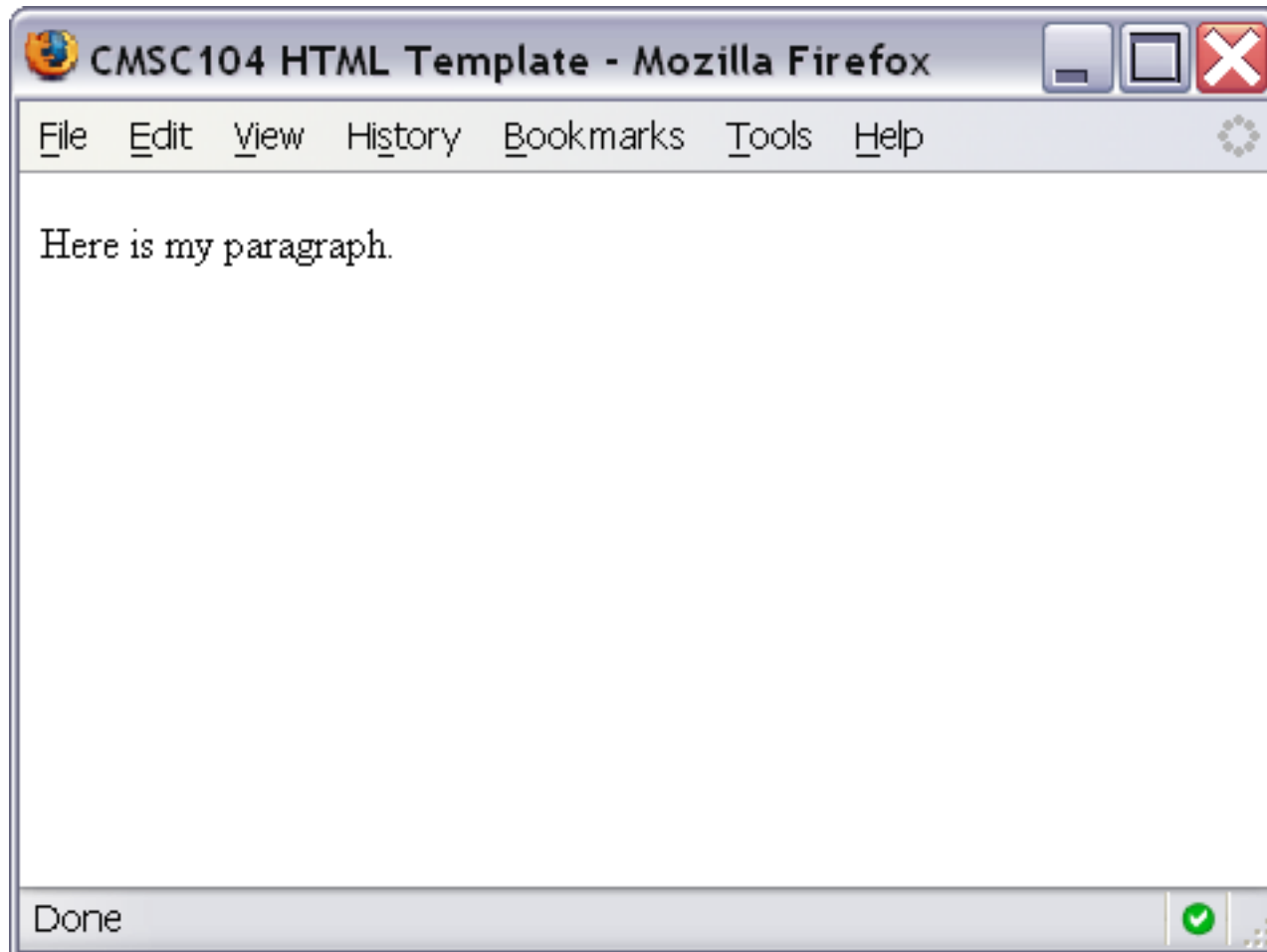




# Comment Example

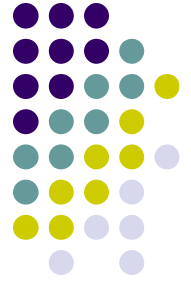
```
<!-- This is just some sample html  
to illustrate the use of a  
comment -->  
  
<p>  
    Here is my paragraph.  
</p>  
  
<!-- Here is another comment -->
```

# Heading Example Screenshot



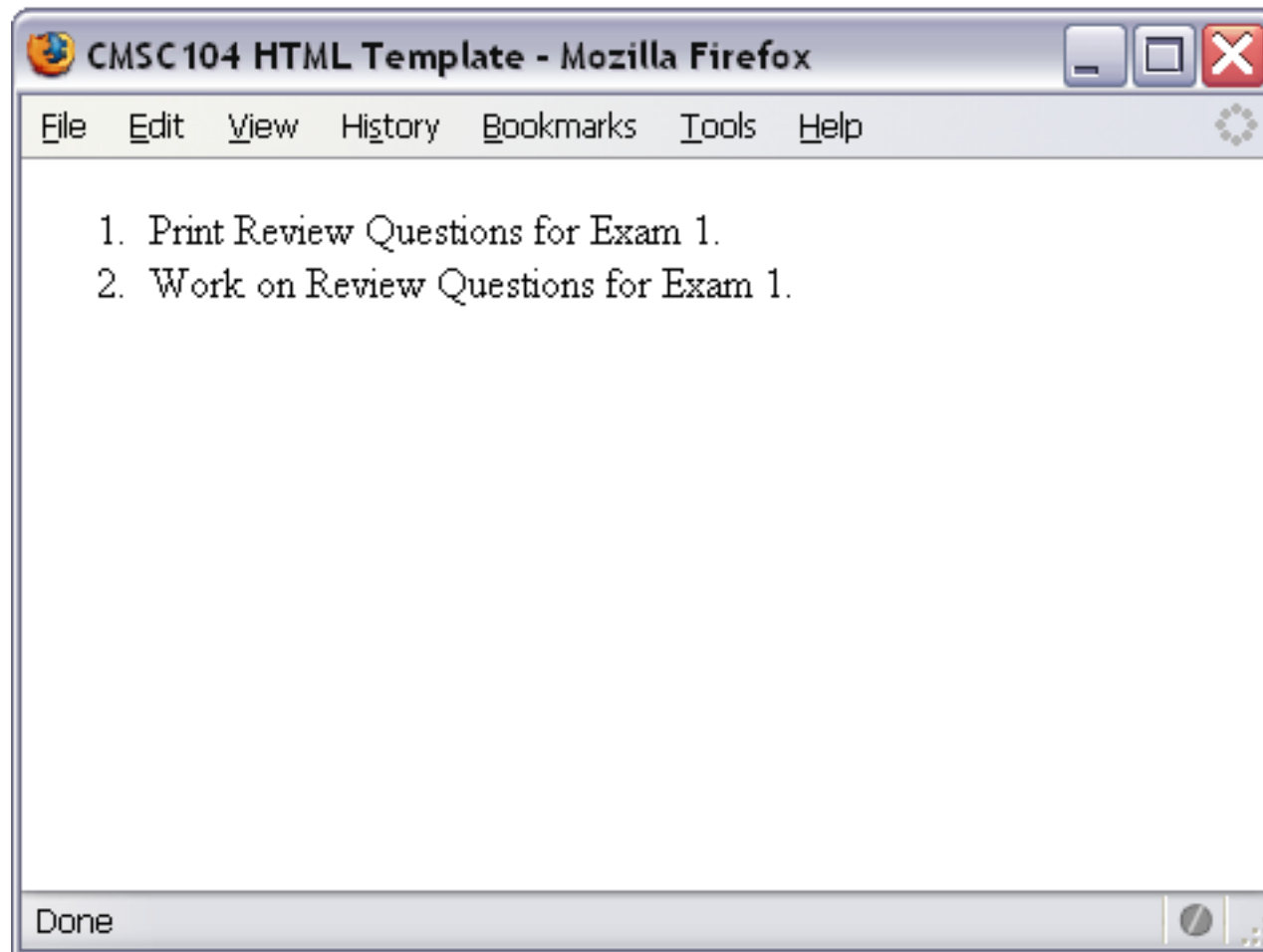


# Ordered List Example

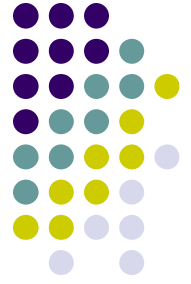


```
<ol>  
  <li>Print Review Questions for Exam 1.</li>  
  <li>Work on Review Questions for Exam 1.</li>  
</ol>
```

# Ordered List Screenshot

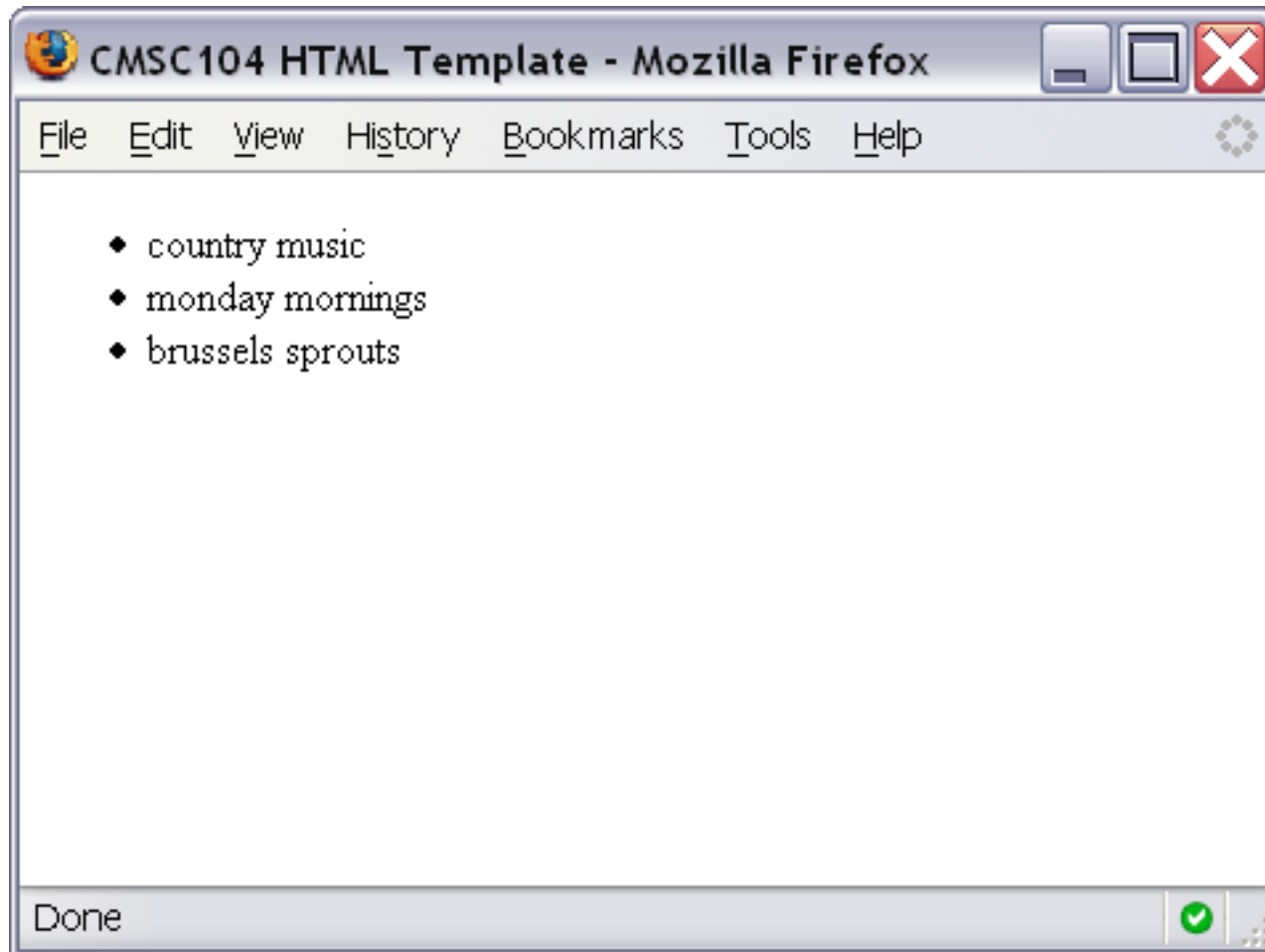


# Unordered List Example



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

# Unordered List Screenshot

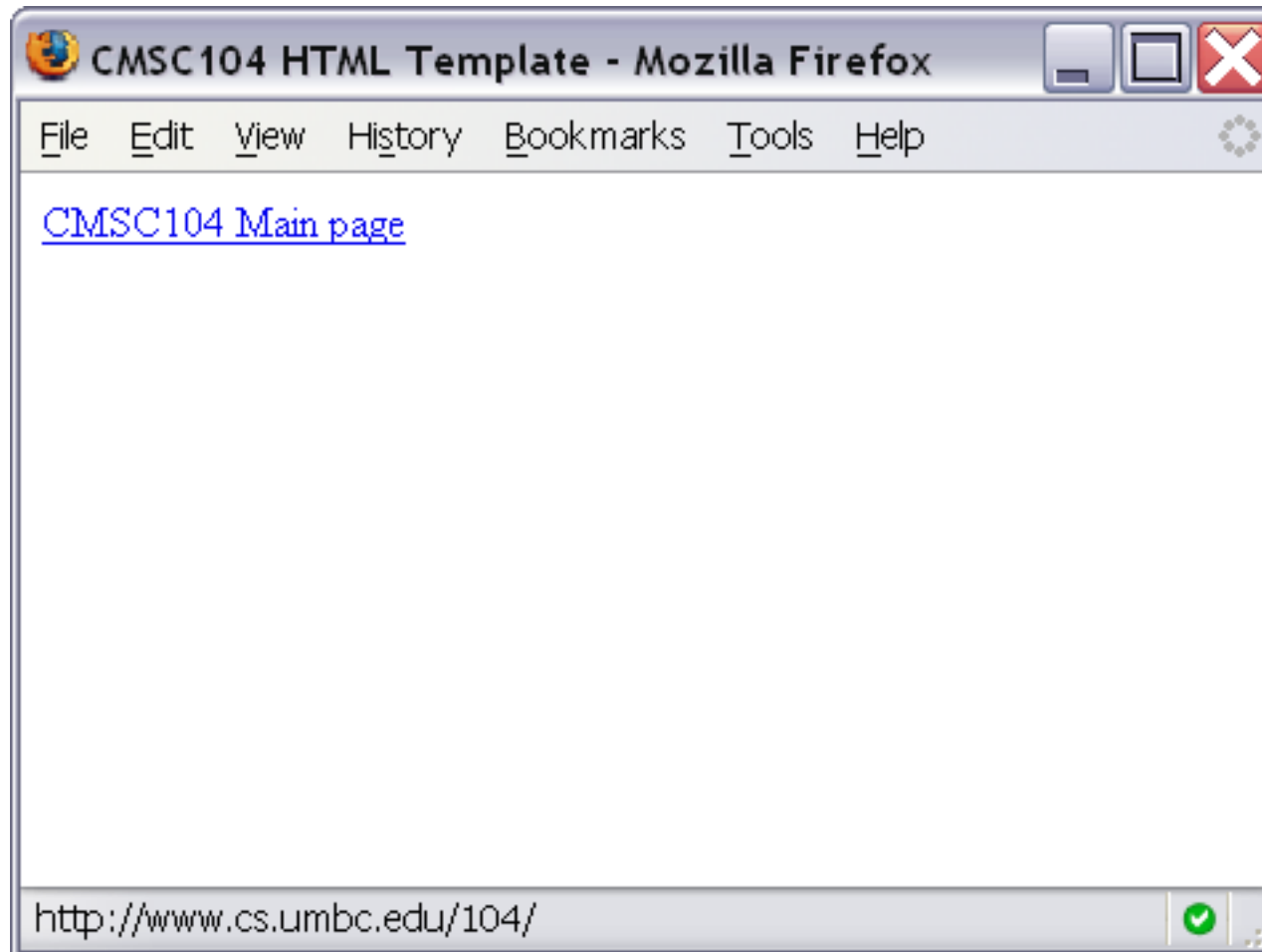


# Link Example

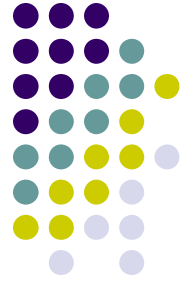


```
<a href="http://www.cs.umbc.edu/104/">CMSC104 Main page</a>
```

# Link Screenshot



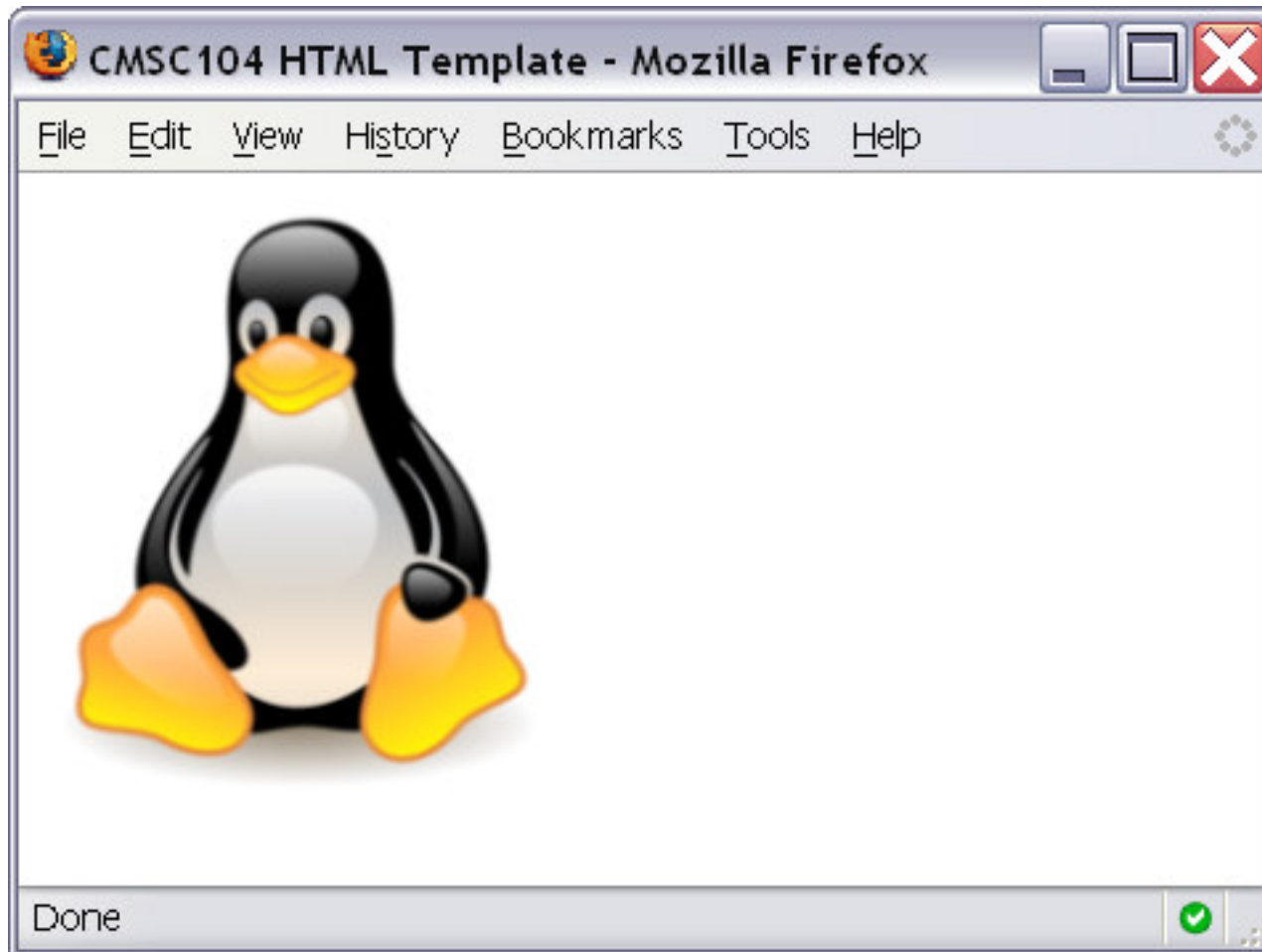
# Image Example



```

```

# Image Screenshot







# Working Example

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

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