



Kabul Polytechnic University
Computer Science Faculty
Information System Department

Web-Engineering I

Lecture I: HTML

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Contents

- ▶ Introduction to HTML
- ▶ HTML Definition
- ▶ HTML Syntax
- ▶ Structure of the webpage
- ▶ Create a basic HTML file
- ▶ HTML elements and attributes
- ▶ HTML headings, paragraph, and style



Introduction to HTML

- ▶ English -> written -> books
- ▶ HTML -> written -> webpages
- ▶ Web pages are text files.
- ▶ The key to **hypertext** is the use of *hyperlinks*, which allow you to jump from one topic to another topic.

HTML Definition

What's HTML?

- ▶ HTML is a language for describing a web page.
- ▶ HTML stands for **H**yper **T**ext **M**arkup **L**anguage.
- ▶ HTML is not a programming language, it's a markup language.
- ▶ Markup language is a set of markup tags.
- ▶ Markup languages uses **markup tags** to describe webpages.

HTML Definition

HTML Tags?

- ▶ HTML markup tags are usually called HTML tags.
- ▶ HTML tags are keywords surrounded by angle brackets like `<html>`
- ▶ HTML tags normally come in pairs like `` and ``.
- ▶ The first tag in a pair is the **start tag**, the second tag is the **end tag**.
- ▶ Start and end tags are also called **opening tags** and **closing tags**.

HTML Definition

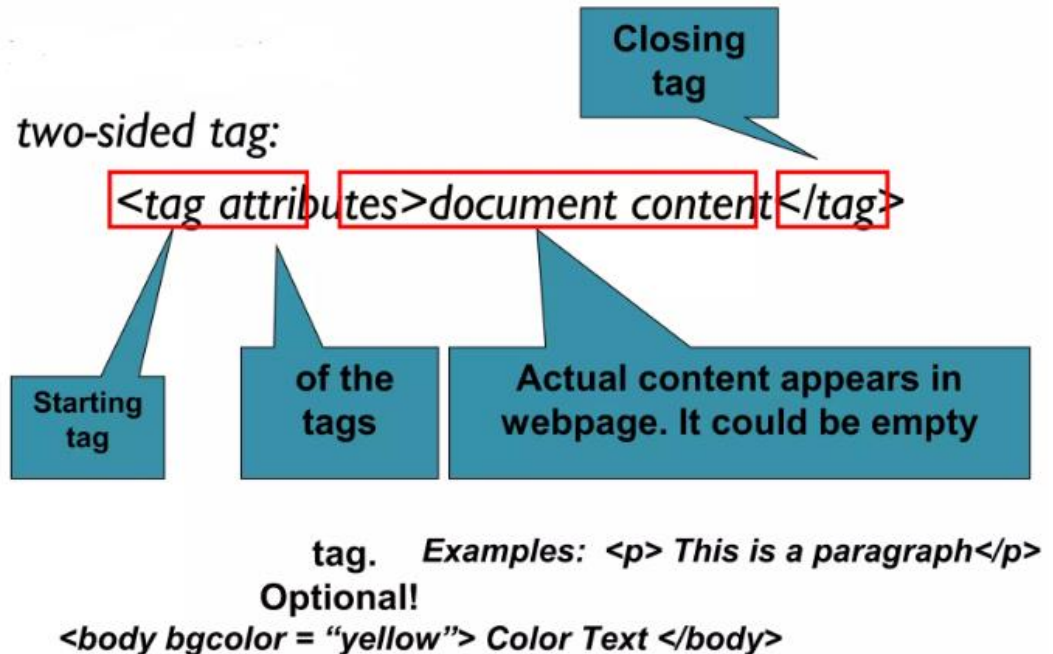
- ▶ HTML describes the content and format of web pages using tags.

Ex. Title tag: `<title> A title </title>`

- ▶ It's the job of the web browser to interpret tags and display the content accordingly.

HTML Syntax

- ▶ An HTML file contains both formatting tags and content.
 - i. Document content is what we see on the webpage.
 - ii. Tags are the HTML codes that control the appearance of the document contents.



HTML Syntax

➤ HTML has two types tags

1) Container Tag: having both starting & ending tags.

E.g.

Paragraph tag: `<p> ... </p>`

Body tag `<body> ... </body>`

2) Empty Tag: only having starting tags, no need for end tags.

E.g.

Breaking line tag: `
`

Horizontal line tag `<hr/>`

Structure of the webpage

- ▶ Starting with the tag `<html> ... </html>`

**Everything about
the web page
should be
enclosed here**




```
<html>  
.....  
</html>
```

Structure of the webpage

- ▶ Inside the `<html> ... </html>` tag,
- ▶ Each webpage has a head part described in `<head> </head>` tag:

The title of the web page should be put here


```
<html>
  <head>
    <title> Testing Page</title>
  </head>
</html>
```

A curly bracket on the left side of the code block groups the `<head>`, `<title> Testing Page</title>`, and `</head>` lines together, pointing to the text 'The title of the web page should be put here'.

Structure of the webpage

- ▶ Inside the `<html> ... </html>` tag
- ▶ Each webpage has a body part described in `<body> </body>` tag:

```
<html>
  <head>
    <title> Testing Page</title>
  </head>
  <body>
    This is a sample HTML file.
  </body>
</html>
```



The content of the whole web page should be put here

Structure of the webpage



This is a sample HTML file.

Body

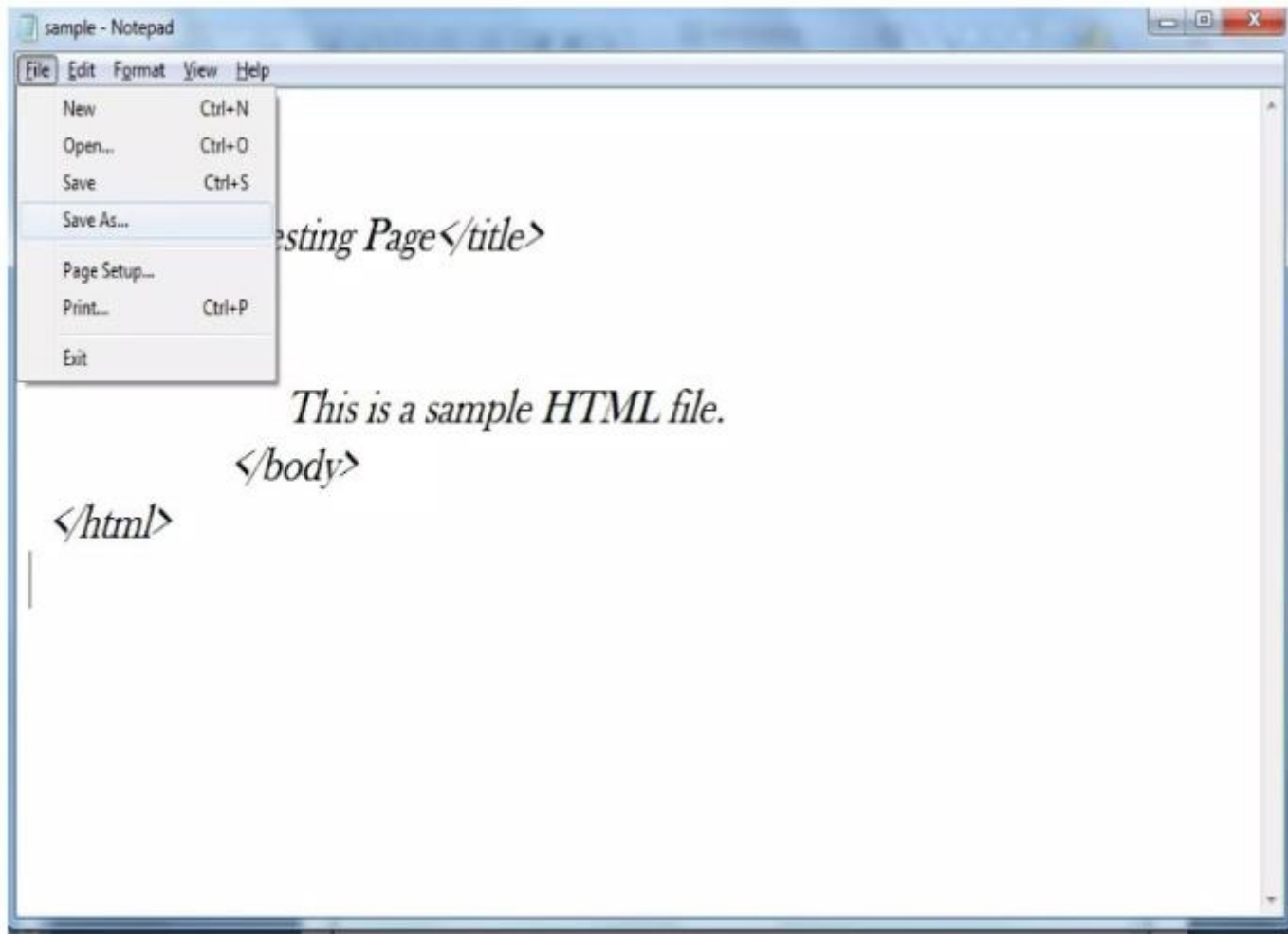
Title

Create a basic HTML file

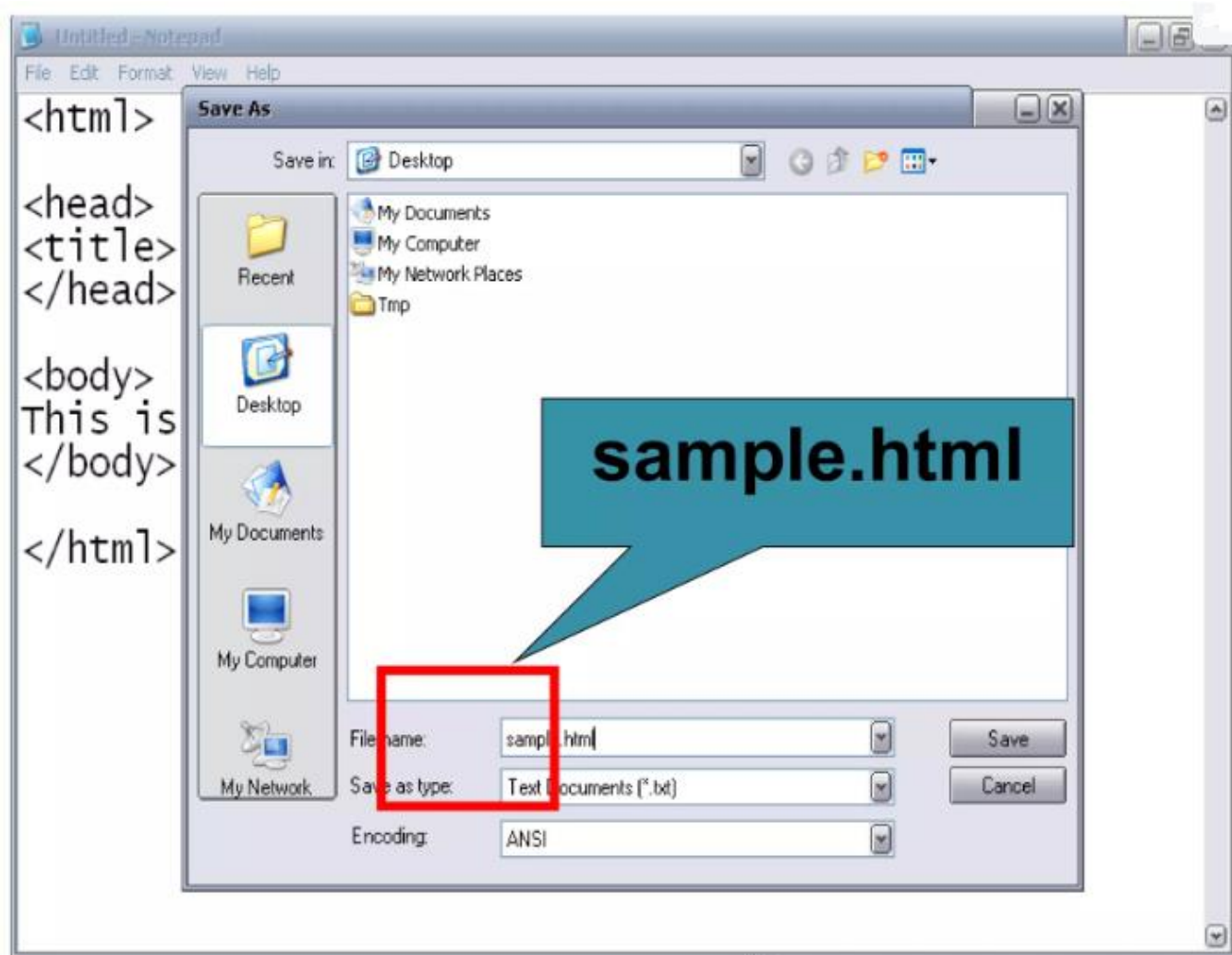
- ▶ Open your text editor (notepad).
- ▶ Type the following lines of code into the document:

```
<html>  
<head>  
<title> Testing Page</title>  
</head>  
<body>  
This is a sample HTML file.  
</body>  
</html>
```

Create a basic HTML file



Create a basic HTML file



HTML Elements & Attributes

- ▶ HTML **documents** are made up by HTML **elements**.
- ▶ HTML elements are written with a **start** tag, with an **end** tag, with the **content** in between:

`<tagname>Contents ... </tagname>`

- ▶ The HTML **element** is everything from the start tag to the end tag:

`<p>My first HTML paragraph...</p>`

HTML Elements & Attributes

- ▶ HTML Attributes provide additional information about HTML elements.

```
<p title="About W3Schools"> W3Schools is ... </p>
```

```
<a href="http://www.w3schools.com">This is a link </a>
```

```

```

HTML Heading, Paragraphs, ...

- ▶ **Heading:** Headings are defined with the `<h1>` to `<h6>` tags.

Ex. `<h1>`This is heading 1`</h1>`

- ▶ **Paragraph:** The HTML `<p>` element defines a paragraph.
`<p>`This is simple text`</p>`

HTML Heading, Paragraphs, ...

- ▶ **Style:** Every HTML element has a **default style** (background color is white and text color is black). Changing the default style of an HTML element, can be done with the **style attribute**.

```
<h1 style="color:blue">This is a heading</h1>
```

- ✓ background-color:lightgray
- ✓ font-family:verdana
- ✓ font-size:300%

Homework

- ▶ Install any text editor you're comfortable with...
- ▶ Create your first HTML file and try the basic HTML tags.

References

- ▶ Learning Web Design: A beginner's guide to HTML, CSS, JavaScript, and web graphics

Questions ...?

