Introduction to the HTML

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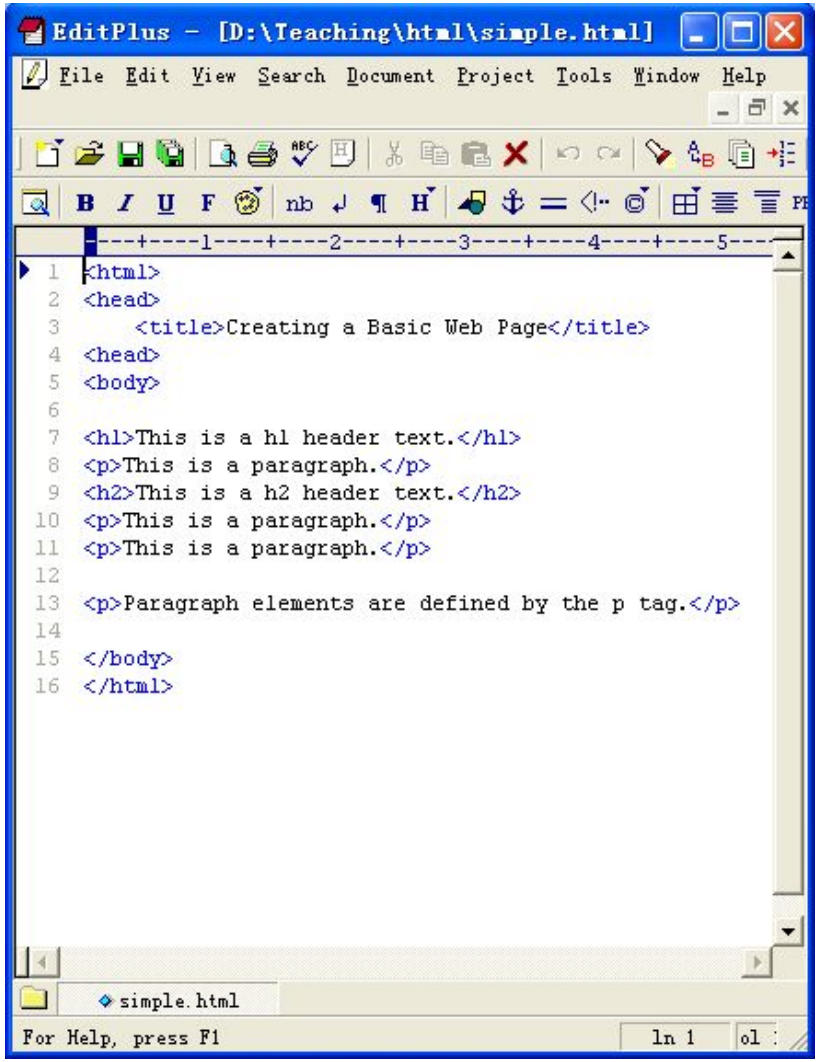
HTML Source Document

- When you connect to a web page by entering its URL into the browser
  - Browser instructs your computer to send a message out over the Internet to the computer specified by that URL requests that it sends back a certain document (**HTML source doc**)
  - **HTML source doc** describes the ***content*** and ***layout*** of the web page
  - After your computer receives the html, your browser interprets the html and displays the resulting web page (text/graphics/links etc)

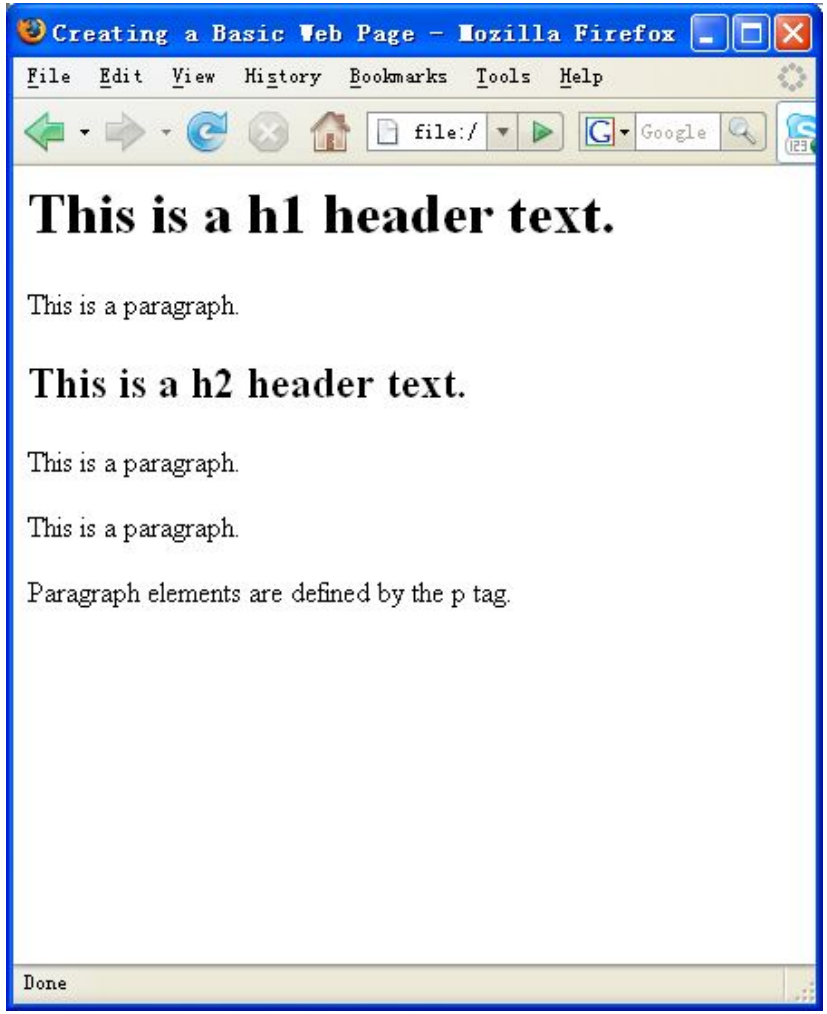
HTML Source Document

- **HTML** source document
  - A text-only document
  - Consists of (1) actual text, and (2) tags
- A **tag** is an html code that is enclosed in angel brackets <>; used to lay out the web page.
- **XHTML** is a simple, more standardized version of HTML
- XHTML/HTML can be created using a simple text editor like notepad
- File extension must be **.html** or **.htm**

Sample HTML



HTML Source



Firefox display of the html source

HTML, XML, XHTML

- **XML** (eXtensible Markup Language):
  - is a **set of rules** that lets web designers classify their data in a way customized to their needs.
  - Extendable by creating new types of tags.
- **XHTML** (eXtensible HyperText Markup Language):
  - A new version of HTML based on XML
  - Inherits strict syntax rules of XML

HTML vs. XHTML

- Some comparisons of HTML vs. XHTML

HTML	XHTML
Tags aren't extensible	Tags are extensible
Tags are not case-sensitive	Only lowercase tags are allowed
Possible to leave off and ending tag like </body>	Tags should appear in pairs
Overlapping tags	No overlapping tags

Composition of a HTML Document

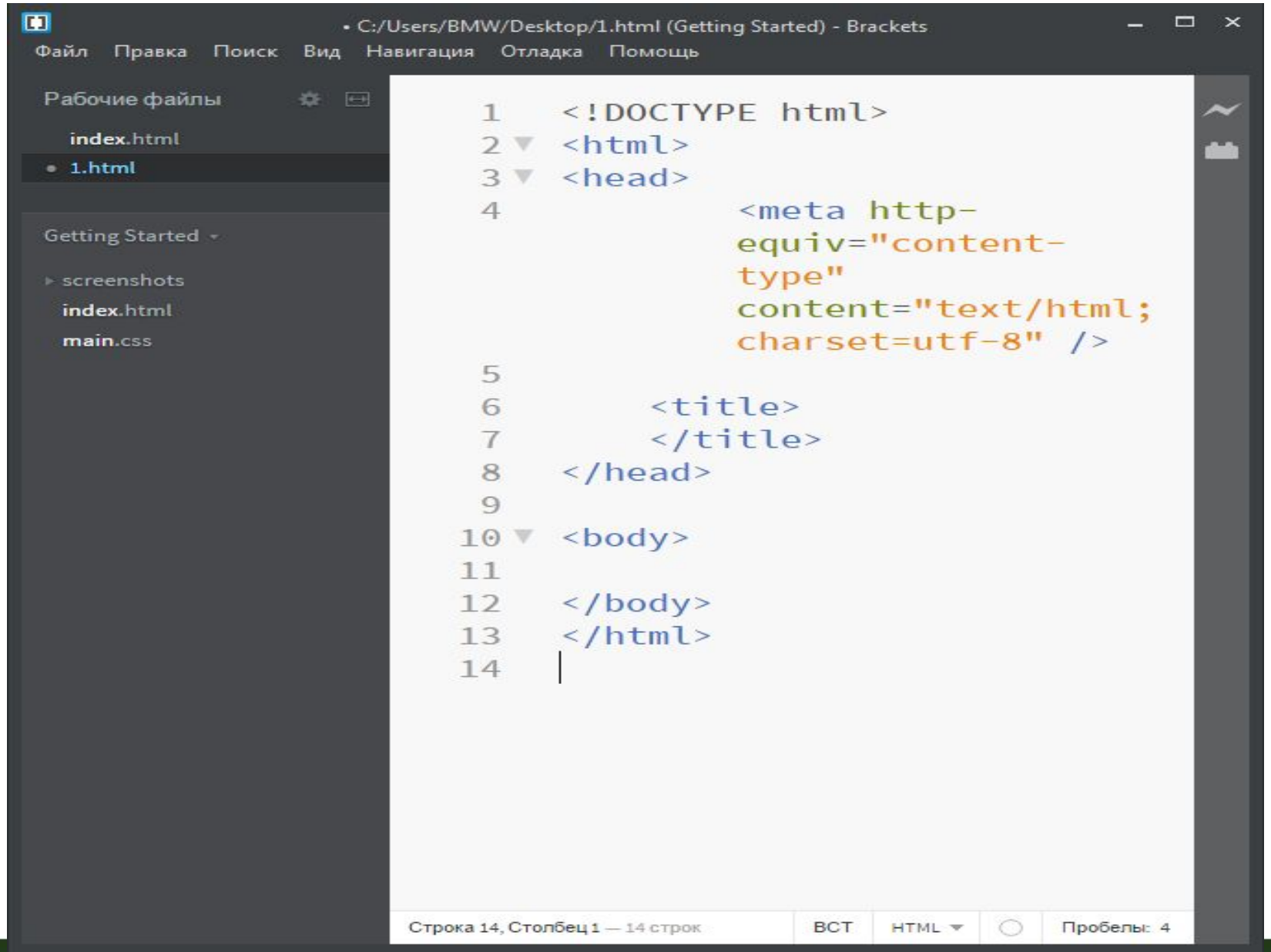
- An HTML document consists of four main parts:
  - the DOCTYPE
  - the Html
  - the Head
  - the Body

Composition of a HTML Document

```
<!DOCTYPE html>
<html >
<head>
        <meta http-equiv="content-type" content="text/html;
charset=utf-8" />
        ...
        <title>…</title>
</head>

<body>
…
</body>
</html>
```

Creating HTML



HTML Tags/Elements

- Tags are also called **elements**
- An **attribute** is a special code that can enhance or modify a tag. They are generally located in the starting tag after the tag name.
- Basic syntax for html tags and attr.
  - **<tag attribute="value"> </tag>**
  - All tags must be lower case and values of attributes need to be surrounded by quotes

HTML Tags/Elements

- Example
  - This is bold text...
  - <p style =“text-align:center">This text will appear aligned to the center...</p>

<meta> tag

- **<meta>** tag
  - is used to specify *keywords* that describe a document's **contents** as well as a **short description**.
- Two necessary attributes – "name" & "content"

```
<meta name="keywords"
  content="baseball, soccer, tennis"/>
<meta name="description"
  content="Sports information page"/>
```

<p> paragraph tag

- **<p>** tag
  - The paragraph tag. Used so separate text within a web page.
  - Container type
  - Will provide line breaks
- Optional attribute : align (not supported in HTML5)

```
<p align="center">
```


 tag

- **
** tag
  - Is used for line break
- Example

```
<p>
Contact<br />
6150 Sennott Square<br />
University of Pittsburgh<br />
Pittsburgh, PA 15260
</p>
```

Headings

- **<h1>** to **<h6>**
  - Define headers. <h1> defines the largest header. <h6> defines the smallest header.
- Example

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

& tags

- **** tag
  - Renders text as emphasized text
- **** tag
  - Renders text as strong emphasized text
- Example (with smth. missing)

```
<em>Emphasized text</em><br />
<strong>Strong text</strong><br />
```

Commenting Source Code

- Comments are enclosed in <!-- and -->
- Example

```
<!--This comment will not be
displayed-->
<p>This is a regular paragraph</p>
```

What are the reasons for using comments?

<blockquote> and <q> tags

- **<blockquote>** tag defines the start of a long quotation.

```
<blockquote cite=
“http://www.forbes.kz/dollar.htm”>
here is a long quotation here is …
</blockquote>
```

- **<q>** tag defines the start of a long quotation.

```
<p><q cite=“if any”> here is a short
quotation</q> that helps you </p>
```