Cascading Style Sheets

- Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.
- CSS handles the look and feel part of a web page.
- Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, as well as a variety of other effects.
- CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.

Understanding the Styles

- A style is a consistent, recognizable pattern
- A CSS style is a collection of one or more rules
- A style sheet is a collection of styles
- A rule is the combination of a selector, a property, and a value
- The selector identifies the element to which you are applying a style.
  - Element, type, class, and id selectors

Advantages of CSS

- CSS saves time - it write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
- Pages load faster - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply to all the occurrences of that tag. So less code means faster download times.

Advantages of CSS

- Easy maintenance - To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- Superior styles to HTML - CSS has a much wider array of attributes than HTML so you can give far better look to your HTML page in comparison of HTML attributes.
- Multiple Device Compatibility - Style sheets allow content to be optimized for more than one type of device.

Advantages of CSS

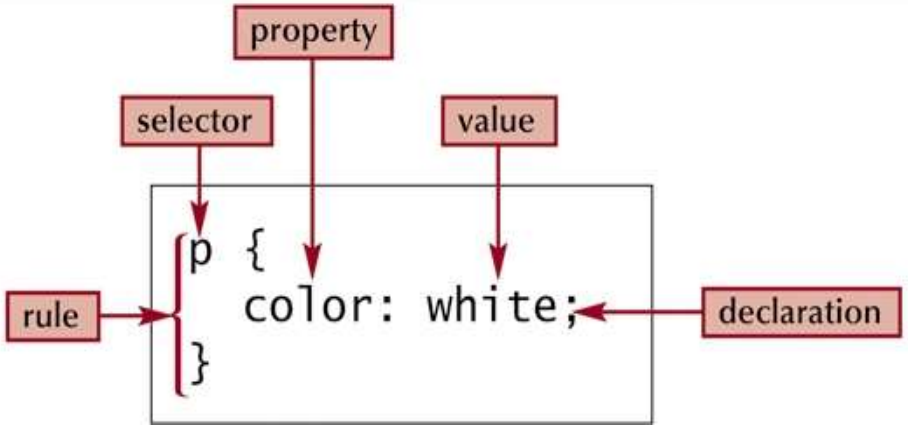
- By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
- Global web standards - Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.
-

Creating a CSS Style

- Type a right brace on its own line (but not indented) below the declaration list. The following code shows the complete syntax for a rule:

```
selector {
        property: value;
        property: value;
}
```

The components of a CSS style



Creating a CSS Style

- Selector: A selector is an HTML tag at which style will be applied. This could be any tag like <h1> or <table> etc.
- Property: A property is a type of attribute of HTML tag. Put simply, all the HTML attributes are converted into CSS properties.
- They could be color or border etc.
- Value: Values are assigned to properties.
- For example color property can have value either red or #F1F1F1 etc.

Creating a CSS Style

The CSS terminology quick glossary

CSS Terminology Quick Glossary	
CSS style	A collection of one or more rules
style sheet	A collection of styles
rule	The combination of a selector and one or more properties and values
selector	What is being styled
property	How the selector will be modified
value	The manner or extent to which the property will be modified
declaration	A property and value pair
declaration list	All the declarations for the same selector

CSS Units

- CSS supports a number of measurements including absolute units such as inches, centimeters, points, and so on, as well as relative measures such as percentages and em units.
- You need these values while specifying various measurements in your Style rules e.g border="1px solid red".

CSS Units

Unit	Description	Example
in	Defines a measurement in inches.	p {word-spacing: .15in;}
mm	Defines a measurement in millimeters.	p {word-spacing: 15mm;}
pc	Defines a measurement in picas. A pica is equivalent to 12 points; thus, there are 6 picas per inch.	p {font-size: 20pc;}
pt	Defines a measurement in points. A point is defined as 1/72nd of an inch.	body {font-size: 18pt;}
px	Defines a measurement in screen pixels.	p {padding: 25px;}

CSS Units

Unit	Description	Example
%	Defines a measurement as a percentage relative to another value, typically an enclosing element.	p {font-size: 16pt; line-height: 125%;}
Cm	Defines a measurement in centimeters.	div {margin-bottom: 2cm;}
em	A relative measurement for the height of a font in em spaces. Because an em unit is equivalent to the size of a given font, if you assign a font to 12pt, each "em" unit would be 12pt; thus, 2em would be 24pt.	p {letter-spacing: 7em;}

Style Precedence

1. Inline styles
   - Add styles to each tag within the HTML file
   - Use it when you need to format just a single section in a web page
- Example
  - <h1 style="color:red; font-family: sans-sarif">Hello</h1>
- Here you can see that the properties are added as the value of the style attribute.
- There is no need for a selector here and there are no curly braces.
- To separate each property from its value with a colon and each of the property-value pairs from each other with a semicolon.

Style Precedence

2. Embedded or internal styles
   - A style is applied to the entire HTML file
   - Use it when you need to modify all instances of particular element (e.g., h1) in a web page

- Example
  - <style>
    - h1 {color:red; font-family:sans-serif}
  - </style>

Style Precedence

- <head>
  <title>Embedded Example</title>
  <style> (default is “text/css”)
  Style declarations
  </style>
  </head>
- A style declaration:
  - Selector {attribute1:value1; attribute2:value2; …}
  - Selector = an element in a document (e.g., a header or paragraph)

Example

- <head>

  <title>Getting Started</title>

  <style type="“text/css”">

  h1 {font-family: sans-serif; color: organge}

  </style>

- </head>

Style Precedence

3. External style sheets
   - An external style sheet is a text file containing the style definition (declaration)
   - Use it when you need to control the style for an entire web site
- Example
   - h1, h2, h3, h4, h5, h6 {color:red; font-family :sans-serif}
   - Save this in a new document using a .css extension

Creating an External Style Sheet

- Open a new blank document in Notepad
- Type style declarations
- h1 {color:red; font-family:sans-serif;}
- Do not include <style> tags
- Save the document as filename.css
- Open an HTML file
- Between <head> and </head> add
- <link href= URL rel =“relation_type” type =“link_type”>
- URL is the file.css
- Relation_type =“stylesheet”
- Link_type =“text/css”
- Save this file and the .css file in the same web server directory

An example of an external style sheet with an original html file

```
<head>
<title>Getting
   Started</title>
<link href="scraps.css"
   rel="stylesheet"
   type="text/css" />
</head>
```

html file

```
h1 {font-family: sans-serif;
    color: orange}
b {color: blue}
```

Text file of css named "scraps"

The <style> Element

- The <style> element is used inside the <head> element to contain style sheet rules within a document, rather than linking to an external document.
- It is also sometimes used when a document needs to contain just a few extra rules that do not apply to the other documents that share the same style sheet.

The <style> Element

- <head>

  <style type=”text/css”>

  h1 {color:#FF0000;}

  </style>

  </head>

Advantages of External CSS Style Sheets

- There are several advantages to using external CSS style sheets rather than internal style sheets or inline style rules, including the following:

1. The same style sheet can be reused by all of the web pages in your site.
2. Because the style rules are written only once, rather than appearing on every element or in every document, the source documents are smaller.

   This means that, once the CSS style sheet has been downloaded with the first document that uses it, subsequent documents will be quicker to download

Advantages of External CSS Style Sheets

3. It is easy to change the appearance of several pages only by altering the style sheet rather than each individual pages.
4. The style sheet can act as a style template to help different authors achieve the same style of document without learning all of the individual style settings.
5. Because the source document does not contain the style rules, different style sheets can be attached to the same document.
6. A style sheet can import and use styles from other style sheets, making for modular development and good reuse.

Selectors

- Selectors
- You should be starting to get the hang of writing rules in style sheets that indicate how an element should appear.
- You can create selectors that are a lot more specific. In addition to providing the element name as a selector, you can use the following as selectors.

Selectors

- **Universal Selector**
- The universal selector is an asterisk; it is like a wildcard and matches all element types in the document.

```
*{}
```

- If you want a rule to apply to all elements, you can use this selector.

Selectors

- Sometimes it is used for default values, such as a font-family and font-size, that will apply to the whole of the document (unless another more specific selector indicates an element should use different values for these same properties).
- It is slightly different from applying default styles to the <body> element, as the universal selector applies to every element, and does not rely on the property being inherited from the rules that apply to the <body> element.

Selectors

2. The Type Selector

- The type selector matches all of the elements specified in the comma-delimited list.
- It allows to apply the same rules to several elements. For example, the following would match all h1, h2, and p elements.

```
h1, h2, p {}
```

- If you have the same rules that apply to several elements, this technique can lead to a smaller style sheet, saving bandwidth and load on your server

Selectors

3.**The Class Selector**

- The class selector allows to match a rule with an element carrying a class attribute whose value that specify in the class selector.
- For example, imagine that a element with a class attribute whose value was BackgroundNote, like so:
- This paragraph contains an aside.

Selectors

- A class selector can use in two ways

I. simply assign a rule that applies to any element that has a class attribute whose value is specialcolor, like so, simply preceding the value of the class attribute with a period or full stop:

- . specialcolor {}

II. you can create a selector that selects only the <p> elements that carry a class attribute with a value of BackgroundNote (not other elements) like so:

- p. .specialcolor {}

Selectors

4.The ID Selector

- The id selector works just like a class selector, but works on the value of id attributes. But rather than using a period or full stop before the value of the id attribute, use a hash or pound sign (#).
- So, a <p> element with an id attribute whose value is abstract can be identified with this selector.
- p#abstract
- Because the value of an id attribute should be unique within a document, this selector should apply only to the content of one element.

Selectors

5. **The Child Selector**

- The child selector matches an element that is a direct child of another.
- this case it matches any <p> elementsthat are direct children of <body> elements:

```
body > p {
        color: #000000;
}
```

- This rule will render all the paragraphs in black if they are direct child of <body> element.
- Other paragraphs put inside other elements like or <td> etc. would not have any effect of this rule.
- The less-than symbol (>) is referred to as a combinator.

Selectors

6. The Descendent Selector

- The descendent selector matches an element type that is a descendent of another specified element, at any level of nesting, not just a direct child.
- While the less-than symbol was the combinator for the child selector, for the descendent selector the combinator is the space. Take a look at this example:

```
table b {}
```

- In this case, the selector matches any <b> element that is a child of the <table> element, which means it would apply to <b> elements both in <td> and <th> elements.
- This is a contrast to the child selector because it applies to all of the children of the <table> element, rather than just the direct children.

Selectors

7. The Adjacent Sibling Selector

- An adjacent sibling selector matches an element type that is the next sibling of another.
- For example, if you want to make the first paragraph after any level 1 heading a different style you can use the adjacent sibling selector like so:
- h1+p {}
- Both elements must have the same element, and this will apply only to the <p> element directly after a heading.

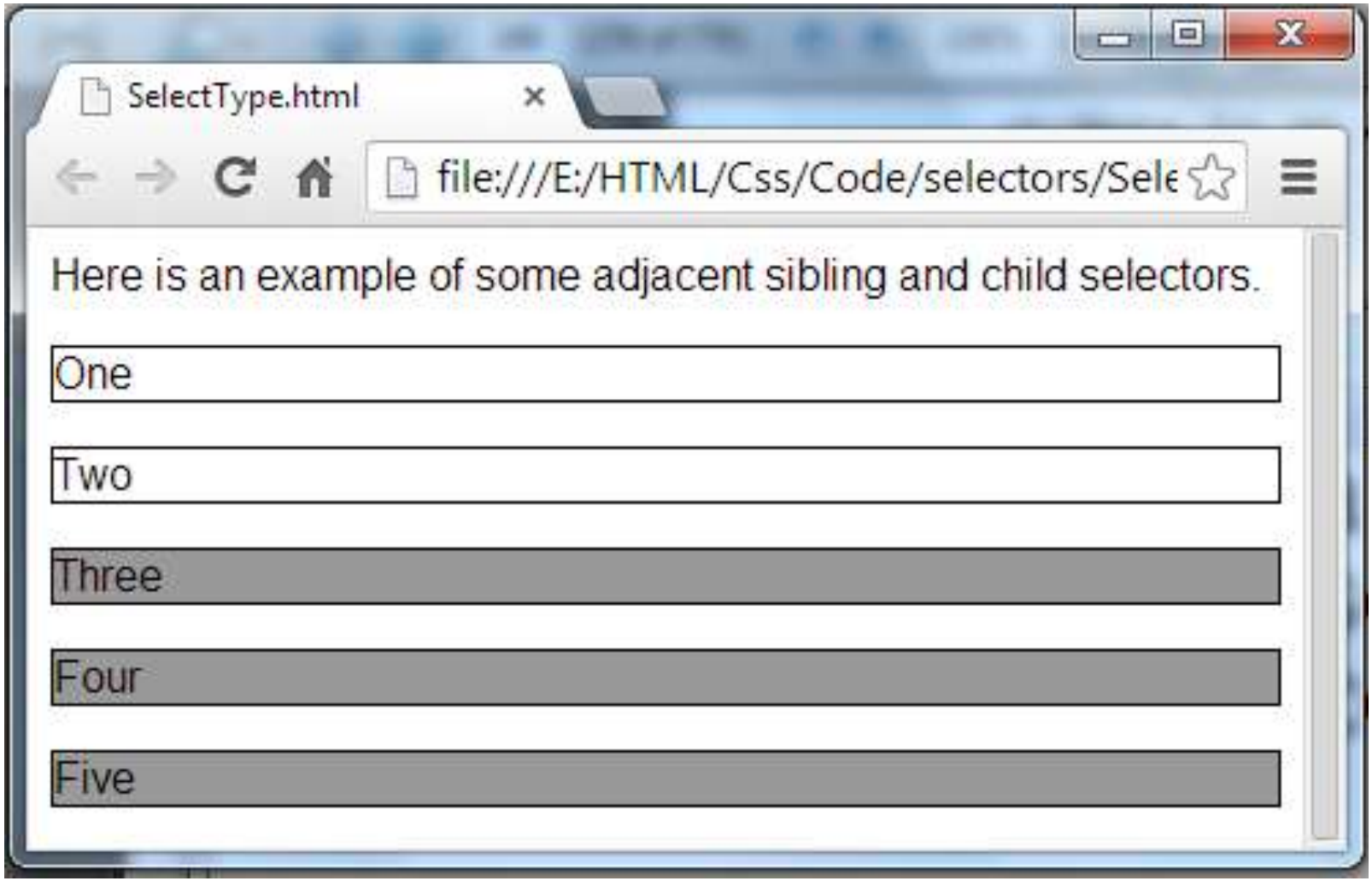
Selectors

- CSS File
- p {font-family:arial, verdana, sans-serif;}
- div>p {border:1px solid #000000;}
- p+p+p {background-color:#999999;}

Selectors

- Html file
- Here is an example of some adjacent sibling and child selectors.
-
- One
- Two
- Three
- Four
- Five
-

Selectors


SelectType.html
file:///E:/HTML/Css/Code/selectors/Sele
Here is an example of some adjacent sibling and child selectors.
One
Two
Three
Four
Five

Selectors

- The three different paragraph styles are as follows:

1. The first paragraph has no border or background color.
2. The paragraphs inside the element all have borders.
3. The last three paragraphs have a gray background.

Selectors

- Here not used three different classes to specify different paragraph styles; rather, only one rule that controls the font used for all paragraphs.
- Second rule for any paragraph that is a child of a element. (Because the first paragraph is not inside a element, the rule does not apply to the first paragraph.)
- The third rule matches any paragraph and is the third consecutive <p> element. (Because the fourth and fifth <p> elements have two previous <p> elements, this rule applies to them, too.)
- p+p+p {background-color:#999999;}

CSS Properties

1. Controlling Fonts

- Several properties allow you to control the appearance of text in your documents. These can be split into two groups:

❑ Those that directly affect the font and its appearance

❑ Those that have other formatting effects upon the text

1. Fonts

Property	Purpose
Font	Allows you to combine several of the following properties into one
font-family	Specifies the family of font to be used (the user must have this installed on his or her computer)
font-size	Specifies the size of a font font-weight Specifies whether the font should be normal, bold, or bolder than the containing element

1. Fonts

font-style	Specifies whether the font should be normal, italic, or oblique (an oblique font is the normal font on a slant rather than a separate italic version of the font)
font-Stretch	Allows you to control the width of the actual letters in a font (not spaces between them)
font-variant	Specifies whether the font should be normal or small caps
font-size	-adjust Allows you to alter the aspect ratio of the size of characters of the font

1. Fonts

- A typeface is a family of fonts, such as the Arial family.
- A font is a specific member of that family, such as Arial 12-point bold.

1. The font-family Property

- The font-family property allows you to specify the typeface that should be used.
- The big drawback with this property is that those viewing the page must have this font on their computers; otherwise they will not see the page in that font.
- You can, however, specify more than one font so that, if the user does not have your first choice of font, the browser looks for the next font in the list

1. Fonts

- Example
- p.one {font-family:arial, verdana, sans-serif;}
- p.two {font-family:times, “times new roman”, serif;}
- p.three {font-family:courier, “courier new”, serif;}

2. **The font-size Property**

- The font-size property enables you to specify a size for the font. You can specify a value for this property in several ways:
  - ❑ Absolute size
  - ❑ Relative size
  - ❑ Length
  - ❑ Percentage (in relation to parent element)

1. Fonts

- The following values are absolute sizes:
- xx-small x-small small medium large x-large xx-large
- The following two values are relative sizes:
- smaller larger
- Length can be expressed in one of the following units of length:
- px em ex pt in cm pc mm
- A percentage is calculated as a proportion of the element that contains the text:
- 2% 10% 25% 50% 100%

1. Fonts

- For example:
- p.one {font-size:xx-small;}
- p.two {font-size:12px;}
- p.three {font-size:3pc;}
- p.four {font-size:10%;}

1. Fonts

3. The font-weight Property

- Most fonts have different variations, such as bold and italic.
- While many well-made fonts have completely different versions of each character for bold text, browsers tend to use an algorithm to calculate and add to the character's thickness when it is supposed to be bold.

1. Fonts

- The possible values for font-weight are:
- normal bold bolder lighter 100 200 300 400 500 600 700 800 900
- For Example
- p.one {font-weight:normal;}
- p.two {font-weight:bold;}
- p.three {font-weight:bolder;}
- p.four {font-weight:lighter;}
- p.five {font-weight:100;}
- p.six {font-weight:200;}

1. Fonts

4.The font-style Property

- The font-style property allows you to specify that a font should be normal, italic, or oblique, and these are the values of the font-style property; for example:
- p.one {font-style:normal;}
- p.two {font-style:italic;}
- p.three {font-style:oblique;}

1. Fonts

5. The font-variant Property

- There are two possible values for the font-variant property: normal and small-caps.
- A small caps font looks like a smaller version of the uppercase letterset.
- For example,
- This is a normal font, but then there are some small caps in the middle.
- Now look at the style sheet:
- p {font-variant:normal;}
- span.smallcaps {font-variant:small-caps;}

1. Fonts

6. The font-stretch Property

- The font-stretch property sets the width of the actual letters in a font (not the space between them).
- It can take either relative or fixed values. The relative values are as follows:
- normal wider narrower
- The fixed values are as follows:
- ultra-condensed extra-condensed condensed semi-condensed semi-expanded expanded extra-expanded ultra-expanded
- For example, you can make a condensed Arial font using the following syntax:
- p {font-family:arial; font-stretch:condensed;}

Text Formatting

Property	Purpose
Color	Specifies the color of the text
text-align	Specifies the alignment of the text within its containing element
vertical-align	Vertical alignment of text within containing element and in relation to containing element
text-decoration	Specifies whether the text should be underlined, overlined, strikethrough, or blinking text

Text Formatting

Property	Purpose
text-indent	Specifies an indent from the left border for the text
text-transform	Specifies that the content of the element should all be uppercase, lowercase, or capitalized
text-shadow	Specifies that the text should have a drop shadow
letter-spacing	Controls the width between letters (known to print designers as kerning)

Text Formatting

Property	Purpose
word-spacing	Controls the amount of space between each word
white-space	Specifies whether the white space should be collapsed, preserved,or prevented from wrapping
direction	Specifies the direction of text (similar to the dir attribute)
unicode-bidi	Allows you to create bidirectional text

Text Formatting

1. The color Property

- The color property allows you to specify the color of the text.
- The value of this property can either be a hex code for a color or a color name.
- For example, the following rule would make the content of paragraph elements red:
- p {color:#ff0000;}

Text Formatting

- <html>
- <head>
- <link rel="stylesheet" type="text/css“ href = "TextColor.css" />
- </head>
- <body>

- Welcome To MSc Computer Science.
- </body>
- </html>

Text Formatting

2. The text-align Property

- The text-align property works like the deprecated align attribute would with text. It aligns the text within its containing element or the browser window.

Text Formatting

Value	Purpose
left	Aligns the text with the left border of the containing element
right	Aligns the text with the right border of the containing element
center	Centers the content in the middle of the containing element
justify	Spreads the width across the whole width of the containing elemen

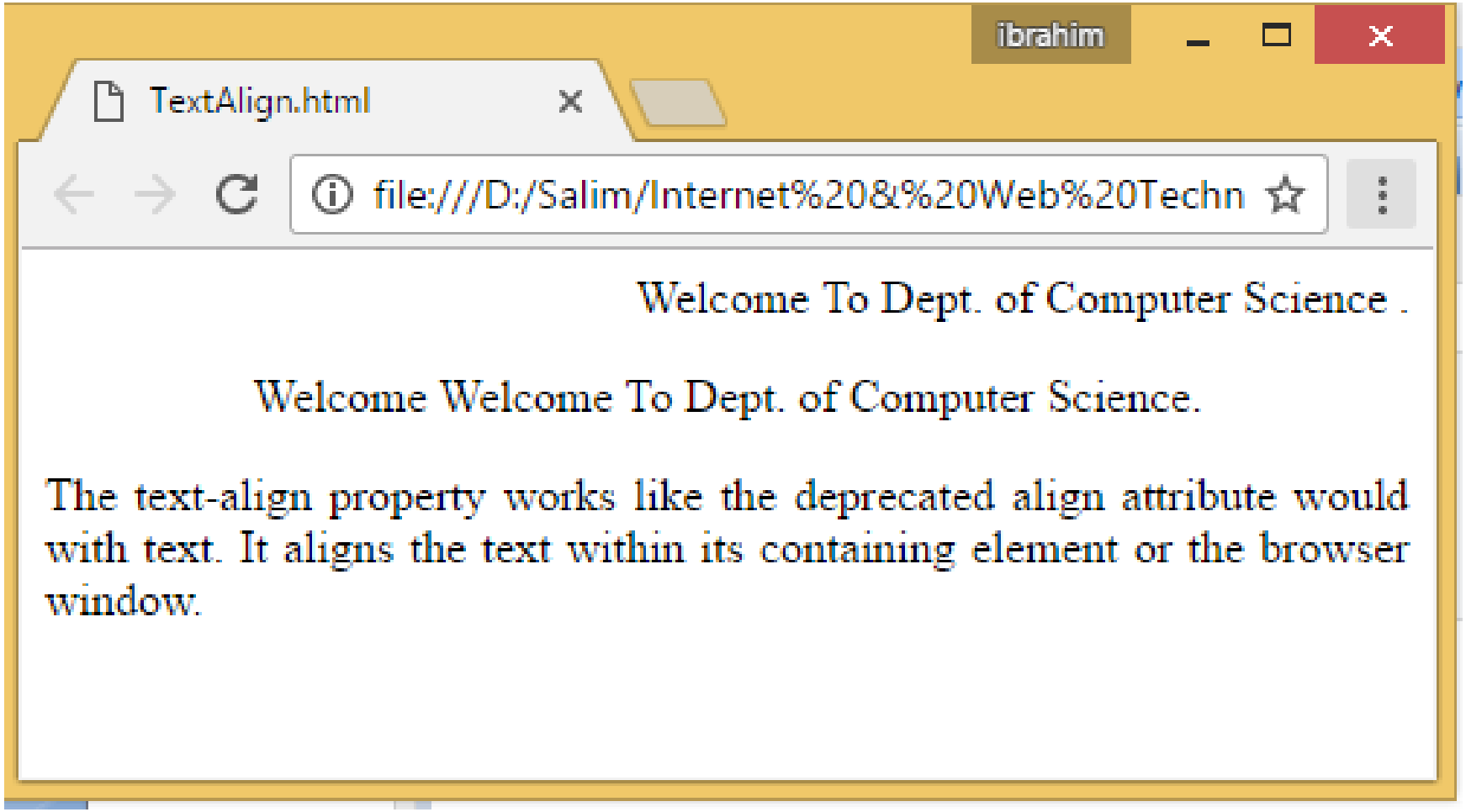
Text Formatting

- Example of CSS file
- p.one {text-align:right;}
- p.two {text-align:center;}
- p.three {text-align:justify;}

Text Formatting

- Example
- <html>
- <head>
- <link rel="stylesheet" type="text/css" href="TextAlign.css" />
- </head>
- <body>
- Welcome To Dept. of Computer Science.
- Welcome To Dept of Computer Science.
- The text-align property works like the deprecated align attribute would with text. It aligns the text
- within its containing element or the browser window.
- </body>
- </html>

Text Formatting



Text Formatting

3. The vertical-align Property

- The vertical-align property is useful when working with inline elements, in particular images and portions of text.
- It allows you to control their vertical positioning within the containing element.
- span.footnote {vertical-align:sub;}

Text Formatting

Value	Purpose
baseline	Everything should be aligned on the baseline of the parent element (this is the default setting).
sub	Makes the element subscript. With images, the top of the image should be on the baseline. With text, the top of the font body should be on the baseline.
super	Makes the element superscript. With images, the bottom of the image should be level with the top of the font.
top	The top of the text and the top of the image should align with the top of the tallest element on the line.

Text Formatting

4. The text-decoration Property

- The text-decoration property allows you to specify the values shown in the table that follows.

	Value	Purpose
1.	underline	Adds a line under the content.
2.	overline	Adds a line over the top of the content.
3.	line-through	Like strikethrough text, with a line through the middle. In general, this should be used only to indicate text that is marked for deletion.
4.	blink	Creates blinking text (which is generally frowned upon and considered annoying).

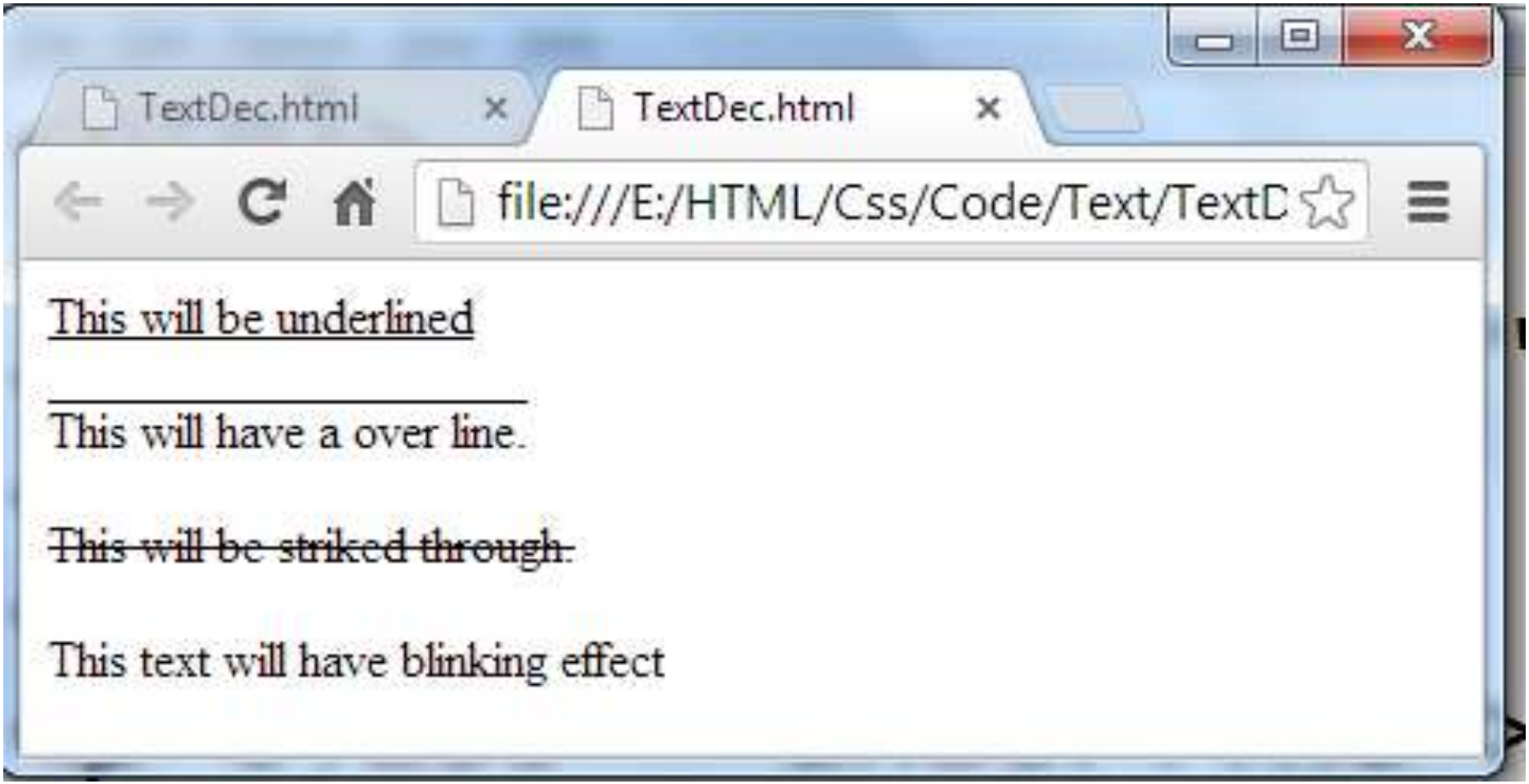
Text Formatting

- For example, here are these properties used on separate paragraphs:
- p.underline {text-decoration:underline;}
- p.overline {text-decoration:overline;}
- p.line-through {text-decoration:line-through;}
- p.blink {text-decoration:blink;}

Text Formatting

- <html>
- <head>
- <link rel="stylesheet" type="text/css" href="TextDec.css" />
- </head>
- <body>
- This will be underlined
- This will have a over line.
- This will be striked through.
- This text will have blinking effect
- </body>
- </html>

Text Formatting



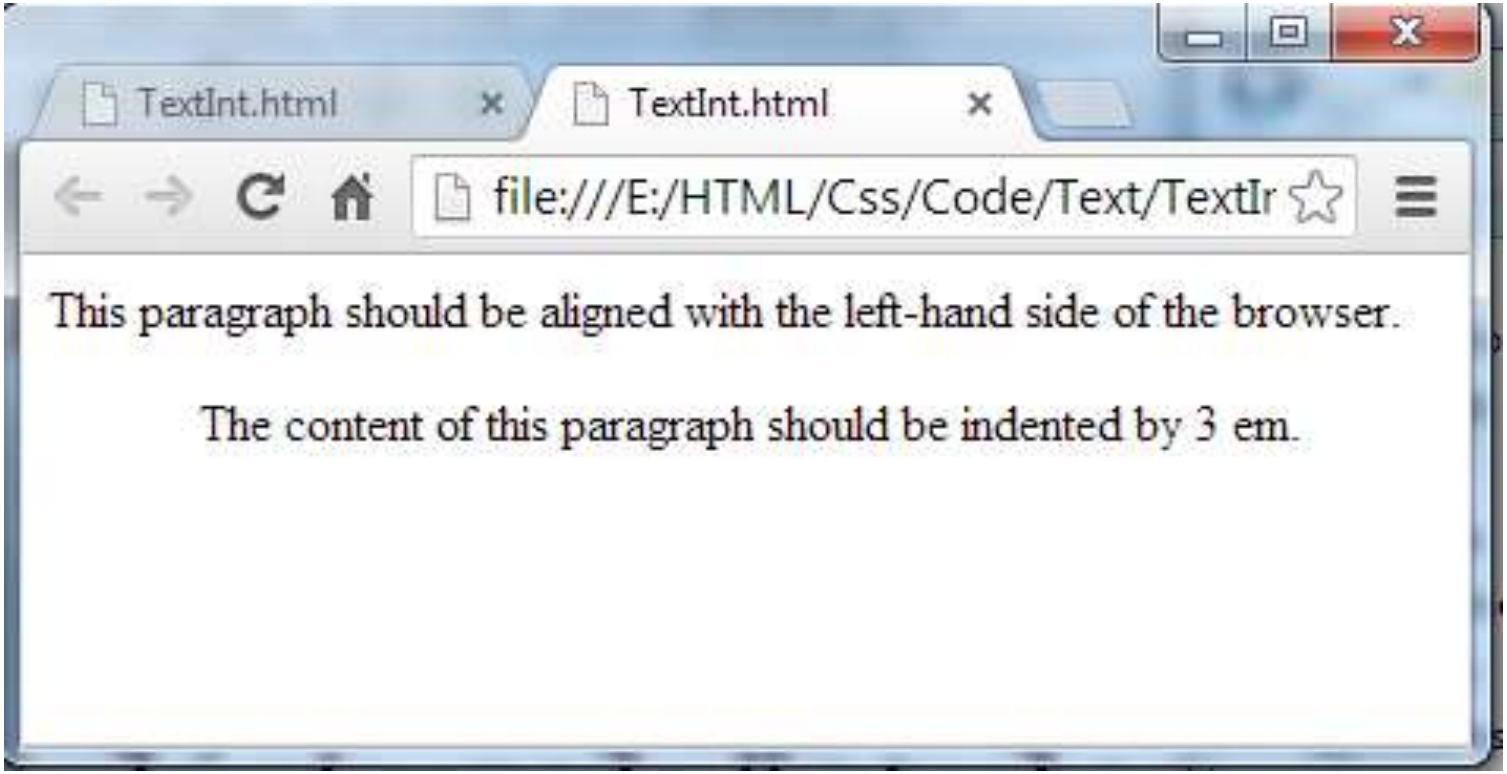
Text Formatting

5. The text-indent Property

- The text-indent property allows you to indent the first line of text within an element.
- For example, here you can see that the first line of the second paragraph has been indented.
- Html Program
- This paragraph should be aligned with the left-hand side of the browser.
- The content of this paragraph should be indented by 3 em.

Text Formatting

- Css Example
- .indent {text-indent:3em;}



Text Formatting

6. The text-shadow Property

- The text-shadow property is supposed to create a drop shadow, which is a dark version of the word just behind it and slightly offset.
- This has often been used in print media, and its popularity has meant that is has gained its own CSS property in CSS2.
- The value for this property is quite complicated because it can take three lengths, optionally followed by a color:
- .dropShadow { text-shadow: 0.3em 0.3em 0.5em black}
- The first two lengths specify X and Y coordinates for the offset of the drop shadow, while the third specifies a blur effect.
- This is then followed by a color, which can be a name or a hex value.

Text Formatting

- <html>
- <head>
- <link rel="stylesheet" type="text/css" href="TextShad.css" />
- </head>
- <body>
- This paragraph should be aligned with the left-hand side of the browser.
- </body>
- </html>

Text Formatting

Text Formatting

7.The text-transform Property

- The text-transform property allows you to specify the case for the content of an element.

Value	Purpose
1. none	No change should take place.
2. capitalize	The first letter of every word should be capitalized.
3. uppercase	The entire content of the element should be uppercase.
4. lowercase	The entire content of the element should be lowercase.

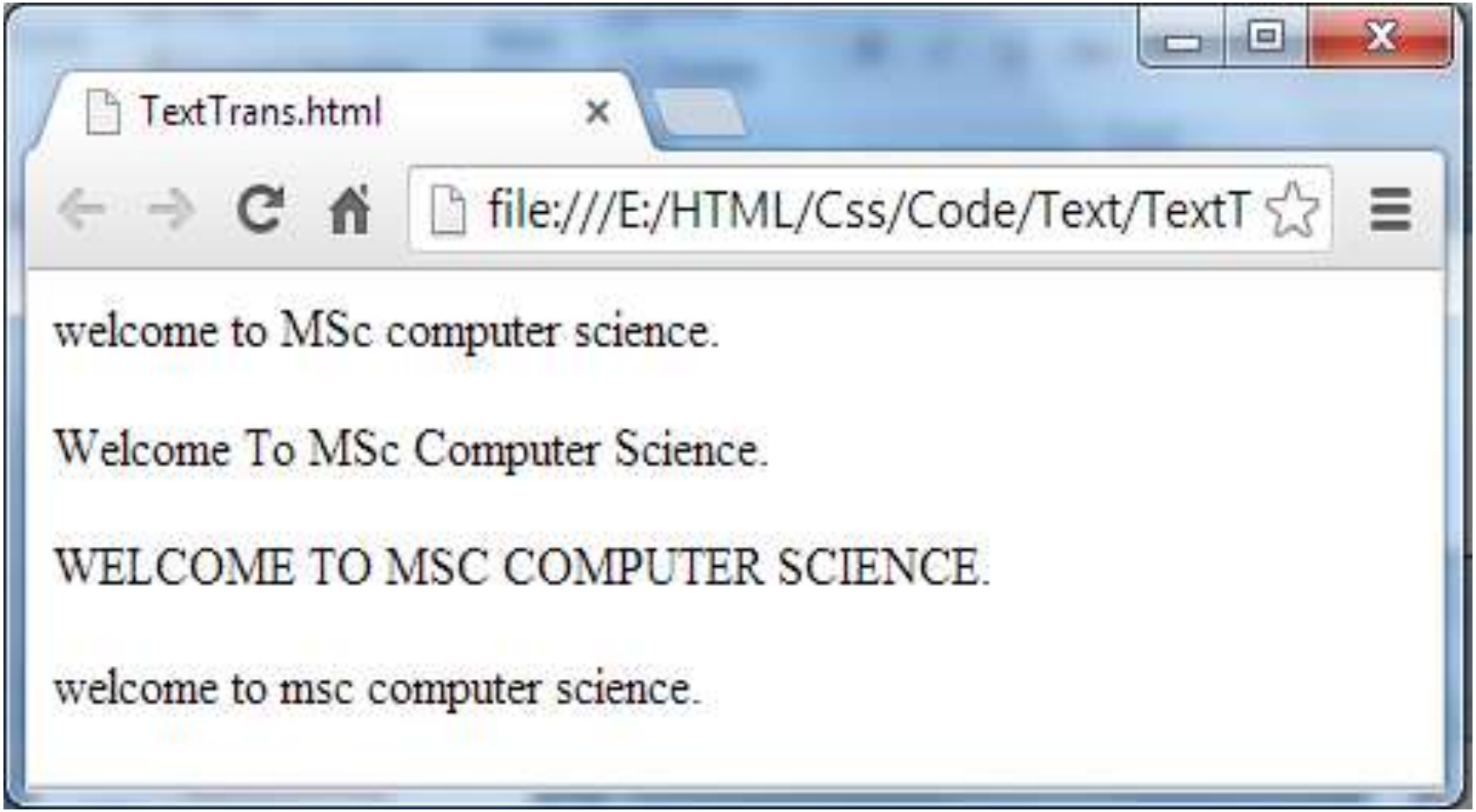
Text Formatting

- Here you can see the four different values for the text-transform property
- p.none {text-transform:none;}
- p.Capital {text-transform:Capitalize;}
- p.upper {text-transform:UPPERCASE;}
- p.lower{text-transform:lowercase;}

Text Formatting

- <html>
- <head>
- <link rel="stylesheet" type="text/css“ href="TextTrans.css" />
- </head>
- <body>
- welcome to MSc computer science.
- welcome to MSc computer science.
- welcome to MSc computer science.
- Welcome To MSc Computer Science.
- </body>
- </html>

Text Formatting



Text Formatting

8. The letter-spacing Property

- The letter-spacing property is supposed to control something that print designers refer to as tracking: the gap between letters.
- Loose tracking indicates that there is a lot of space between letters, whereas tight tracking refers to letters being squeezed together.
- No tracking refers to the normal gap between letters for that font.
- p.wider {letter-spacing:10px;}

Text Formatting

Text Formatting

9. The word-spacing Property

- The word-spacing property is supposed to set the gap between words. Its value should be a unit of length.
- span.wider {word-spacing:20px;}

Text Formatting

10. The white-space Property

- The white-space property controls whether or not white space is preserved within and between block level elements.
- By default, a browser changes any two or more spaces next to each other into a single space, and makes any carriage returns a single space, too.
- The white-space property offers the same results as the HTML <pre> element and nowrap attribute.

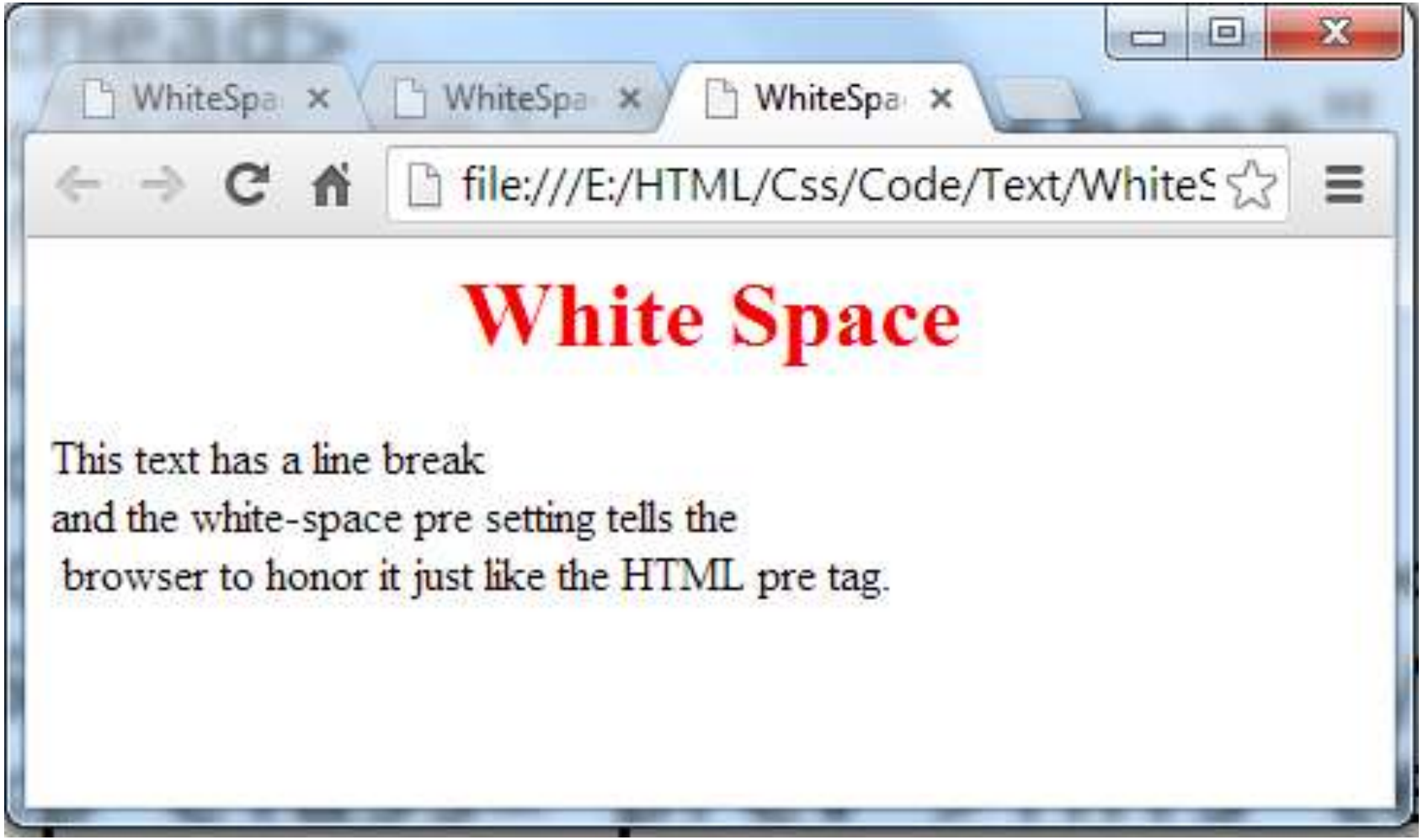
Text Formatting

Value	Meaning
1. normal	Normal white space collapsing rules are followed.
2. pre	White space is preserved just as in the <pre> element of XHTML, but the formatting is whatever is indicated for that element, not just a monospaced font.
3. nowrap	Text is broken onto a new line only if explicitly told to with a element; otherwise text does not wrap.

Text Formatting

- For example, you can use the white-space property like so :
- .prev {white-space:pre;}
- .nowrap {white-space:nowrap;}
- Example
- This text has a line break
- and the white-space pre setting tells the
- browser to honor it just like the HTML pre tag.

Text Formatting



Text Formating

11. The direction Property

- The direction property is rather like the dir attribute and specifies the direction in which the text should flow.

Value	Meaning
1. ltr	The text flows from left to right.
2. rtl	The text flows from right to left.
3. inherit	The text flows in the same direction as its parent element. The following table shows the possible values.

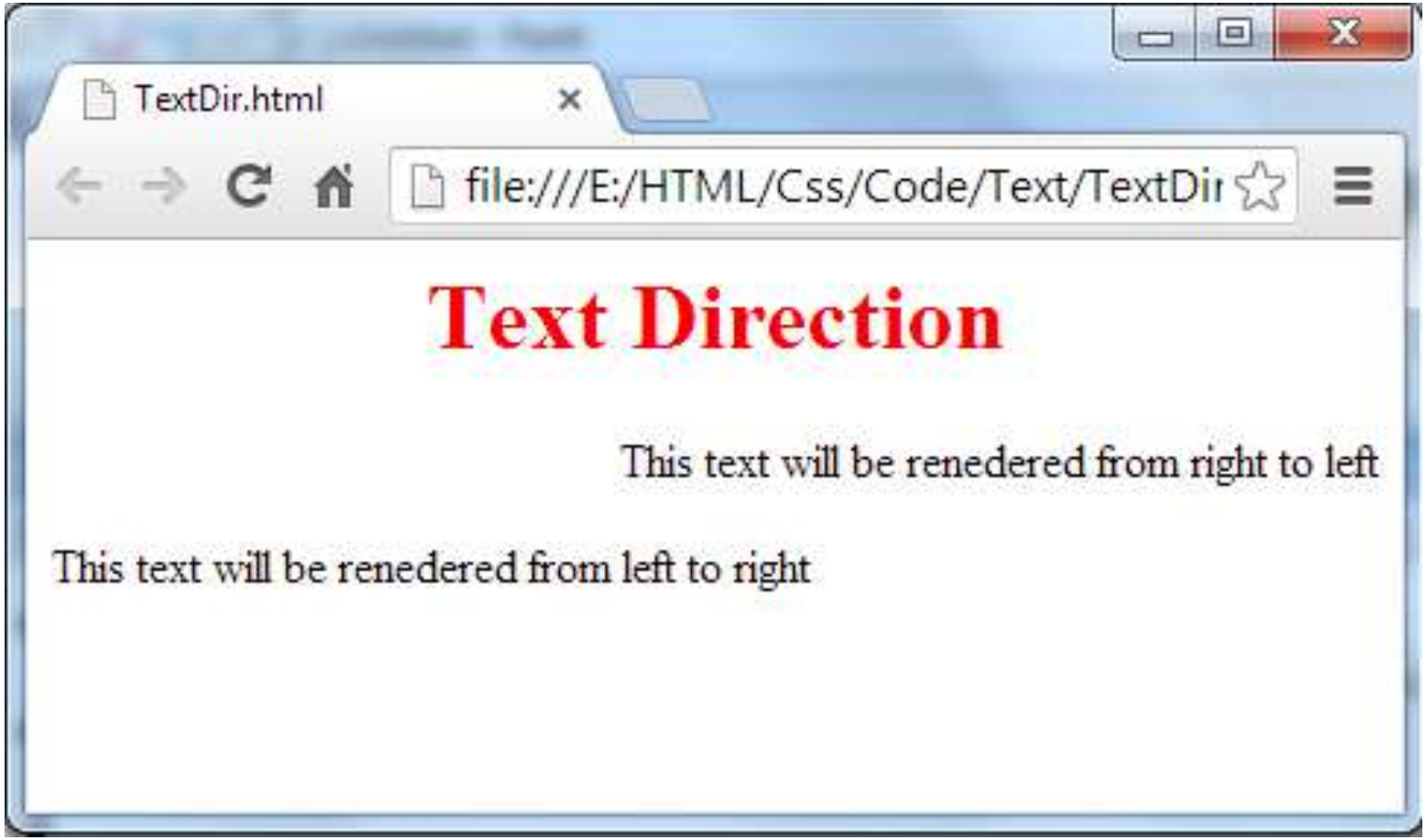
Text Formating

- p.ltr {direction:ltr;}
- p.rtl {direction:rtl;}

Text Formating

- Css Example
- p.ltr {direction:ltr;}
- p.rtl {direction:rtl;}
- Html code
- This text will be renedered from right to left
- This text will be renedered from left to right

Text Formating



Text Pseudo-Classes

- These pseudo-classes allow you to render either the first letter or the first line of an element in a different way than the rest of that element.
- Both of these are commonly used when laying out text.

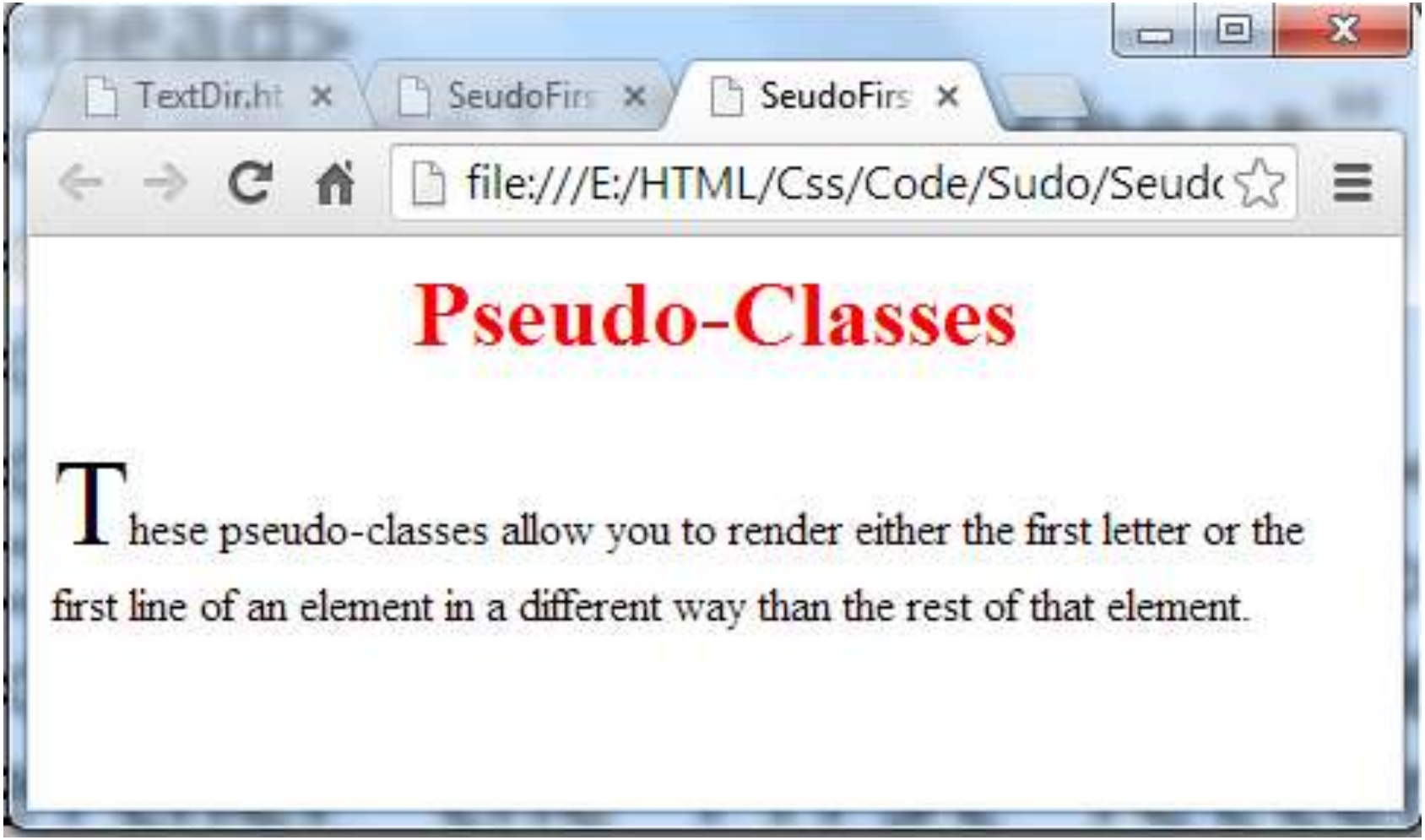
1. **The first-letter Pseudo-Class**

- The first-letter pseudo-class allows you to specify a rule just for the first letter of an element.
- This is most commonly used on the first character of a new page, either in some magazine articles or in books.

Text Pseudo-Classes

- These pseudo-classes allow you to render either the first letter or the first line of an element in a different way than the rest of that element.
- Css File
- p.pageOne:first-letter {font-size:42px;}

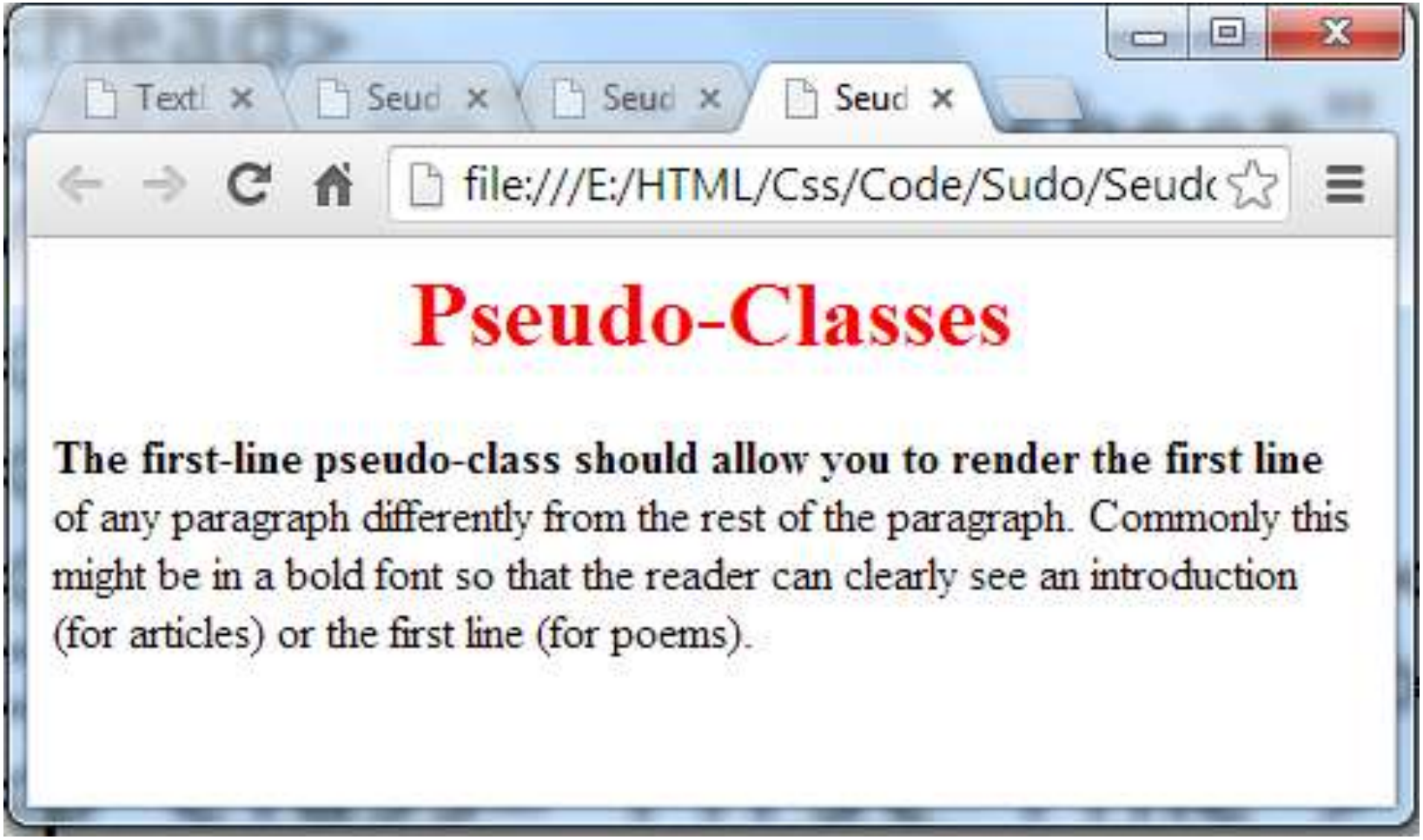
Text Pseudo-Classes



Text Pseudo-Classes

- **The first-line Pseudo-Class**
- The first-line pseudo-class should allow you to render the first line of any paragraph differently from the rest of the paragraph.
- Commonly this might be in a bold font so that the reader can clearly see an introduction (for articles) or the first line (for poems).
- The name of the pseudo-class is separated from the element it should appear on by a colon:
- p:first-line {font-weight:bold;}

Text Pseudo-Classes



Links

- Link is a connection from one web page to another web pages. CSS property can be used to style the links in various different ways.
- The ability to change slightly the color of links that have visited can help users navigate your site, and changing the color when someone hovers over a link can encourage the user to click it.
- Color property can change the color of the text inside any element, and web designers commonly use this property in rules that apply to <a> elements in order to change the colors of links.

Links

Pseudo-class	Purpose
link	Styles for links in general
visited	Styles for links that have already been visited
active	Styles for links that are currently active (being clicked)
hover	Styles for when someone is hovering over a link

Links

1. **color**: Often used to change the colors of the links. As mentioned, it is helpful to differentiate slightly between different links that have already been visited and those not yet visited, as this helps users see where they've been.
2. text-decoration: Often used to control whether the link is underlined or not.

- Using the text-decoration property, you can specify that your links should not be underlined, and you can even set them to be underlined only when the user hovers over the link or selects it.

Links

3. background-color: Highlights the link, as if it had been highlighted with a highlighter pen.

- It is most commonly used when the user hovers over a link, just offering a slight change in color.
- Syntax:

```
a:link {
        color:color_name;
}
```

- color_name can be given in any format like color name (green), HEX value (#5570f0) or RGB value rgb(25, 255, 2). There is another state ‘a:focus’ which is used to focused when a user uses tab key to navigate through the links.

Backgrounds

- The table that follows lists the six properties in CSS that allow you to specify how the background of either the whole browser window or any individual box should appear.

Property	Purpose
1. background-color	Specifies a color that should be used for the background of the page or box
2. background-image	Sets an image to be in the background of a page or box
3. background-repeat	Indicates whether the background image should be repeated across the page or box

Backgrounds

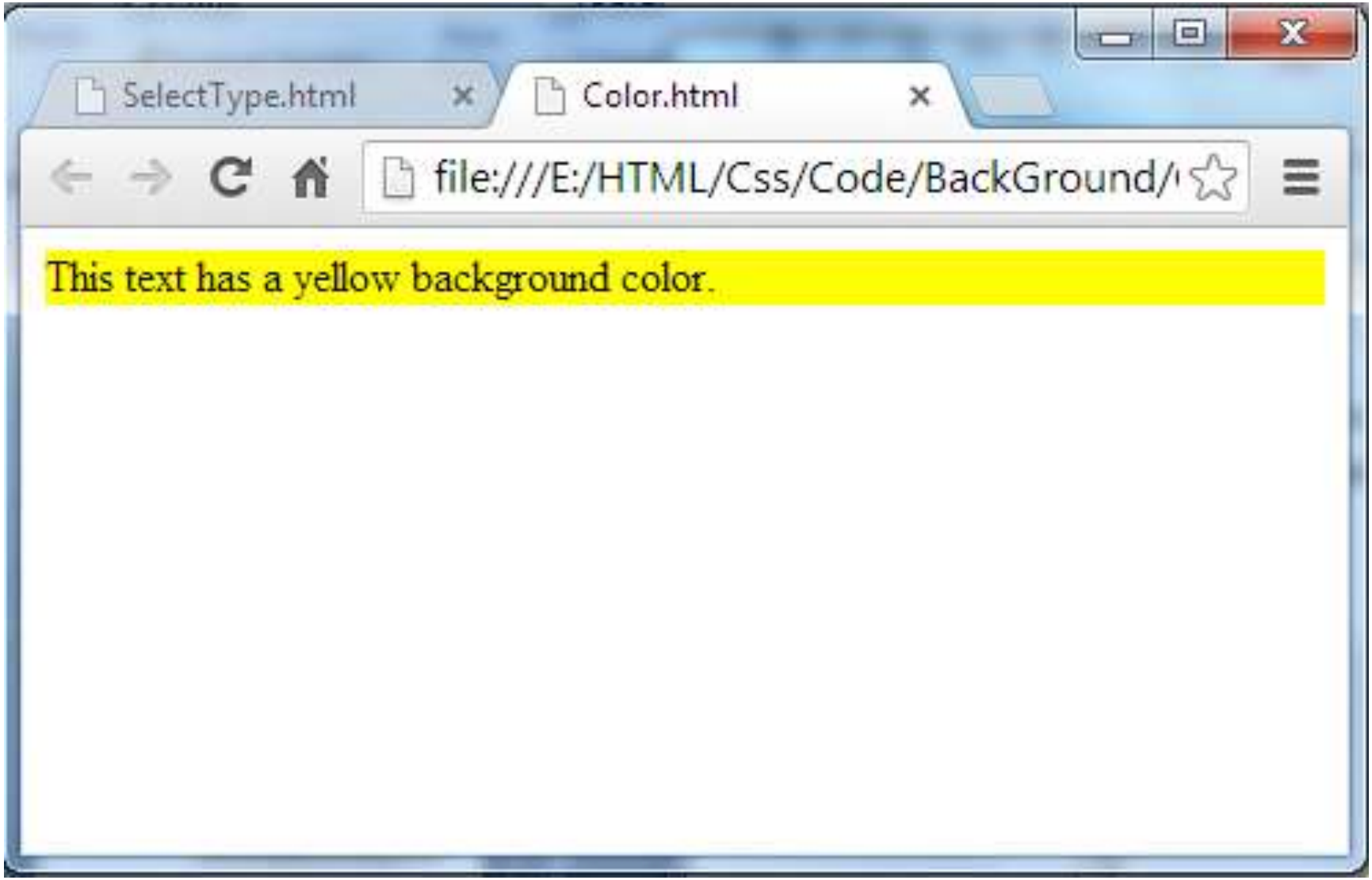
Property	Purpose
4. background-attachment	Indicates a background image should be fixed in one position on the page, and whether it should stay in that position when the user scrolls down the page or not
5. background-position	Indicates where an image should be positioned in either the window or the containing box
6. background	A shorthand form that allows you to specify all of these properties

Backgrounds

1. The background-color Property

- The background-color property allows you to specify a single solid color for the background of your pages and the inside of any box created by CSS.
- The value of this property can be a hex code, a color name, or an RGB value.
- Css File
- p {background-color:yellow;}
- Html file
- This text has a yellow background color.

Backgrounds

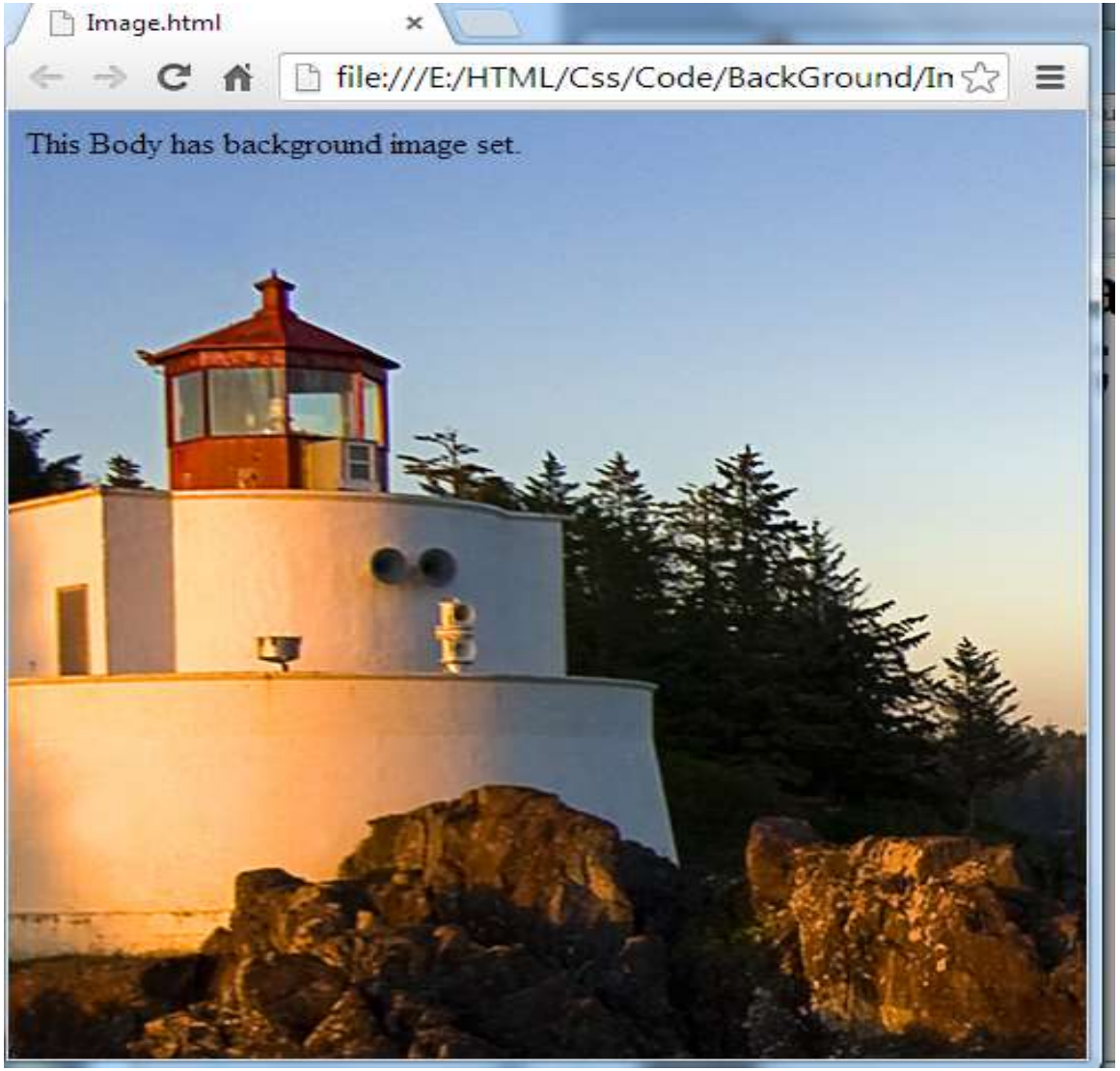


Backgrounds

2.The background-image Property

- As its name suggests, the background-image property allows you to add an image to the background of any box in CSS, and its effect can be quite powerful.
- The value it takes is as follows, starting with the letters url, and then holding the URL for the image in brackets and quotes:
- body {background-image: url (“images / background .gif) ;” }

Backgrounds



Backgrounds

3. The background-repeat Property

- By default, the background-image property repeats across the whole page, creating what is affectionately known as wallpaper.
- The wallpaper is made up of one image that is repeated over and over again,and which (if the image is designed well) you will not see the edges of. Therefore, it is important that any patterns should tessellate, or fit together, well.

Backgrounds

Value	Purpose
1. repeat	This causes the image to repeat to cover the whole page.
2. repeat-x	The image will be repeated horizontally across the page (not down the whole page vertically).
3. repeat-y	The image will be repeated vertically down the page (not across horizontally).
4. no-repeat	The image is displayed only once.

Backgrounds

- Html file
- <body>
- <p>

 This table has background image which repeats multiple times.
- </body>
- CSS File
- body {background-image:url(e:/Leaf.gif);
- background-repeat:repeat-x;}

Background

- The background-position Property
- you may want to alter the position of this image, and you can do so using the background-position property, which takes the values shown in the table that follows

Value	Meaning
1. x% y%	Percentages along the x (horizontal) and y (vertical) axis
2. x y	Absolute lengths along the x (horizontal) and y (vertical) axis

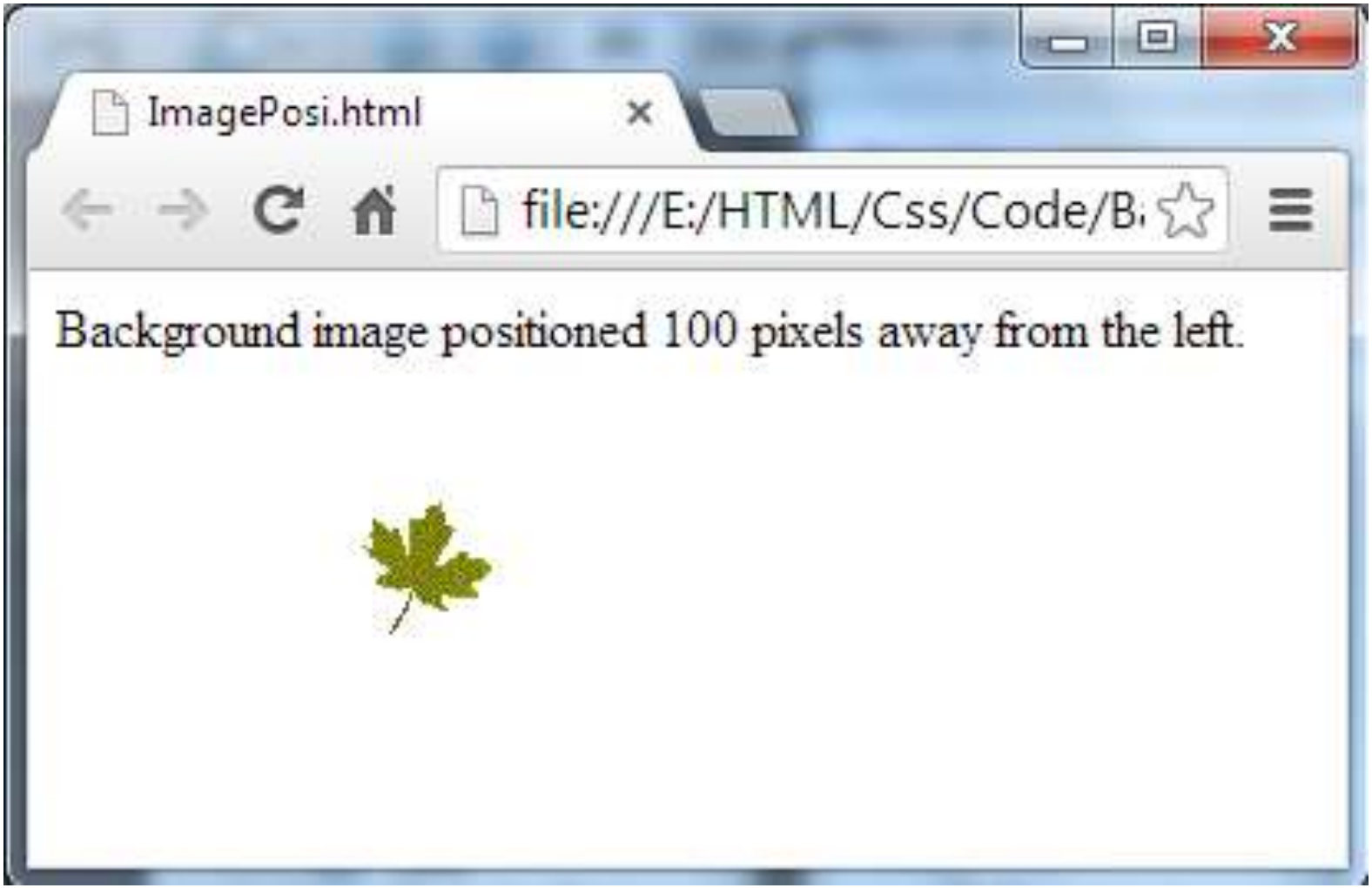
Background

3. left	Shown to the left of the page or containing element
4. center	Shown to the center of the page or containing element
5. right	Shown to the right of the page or containing element
6. top	Shown at the top of the page or containing element
7. center	Shown at the center of the page or containing element
8. bottom	Shown at the bottom of the page or containing element

Background

- CSS File
- body {background-image:url(e:/Leaf.gif);
- background-position:100px;
- background-repeat:no-repeat; }
- HTML File
- <body>
- <p>Background image positioned 100 pixels away from the left.
- </body>

Background


ImagePosi.html
file:///E:/HTML/Css/Code/B
Background image positioned 100 pixels away from the left.

Background

- **The background-attachment Property (for watermarks)**
- The background-attachment property allows you to specify an image known as a watermark.
- The key difference with this setting is that the background image can stay in the same position even when the user scrolls up and down a page or scrolls with all of the other elements of the page.
- The background-attachment property can take two values. They are

Background

Value	Purpose
1. fixed	The image will not move if the user scrolls up and down the page.
2. scroll	The image stays in the same place on the background of the page. If the user scrolls up or down the page, the image moves too.

Lists

- Lists are very helpful in conveying a set of either numbered or bullet points. This chapter teaches you how to control list type, position, style, etc., using CSS.
- We have the following five CSS properties, which can be used to control lists −

1. The list-style-type allows you to control the shape or appearance of the marker.
2. The list-style-position specifies whether a long point that wraps to a second line should align with the first line or start underneath the start of the marker.
3. The list-style-image specifies an image for the marker rather than a bullet point or number.
4. The list-style serves as shorthand for the preceding properties.
5. The marker-offset specifies the distance between a marker and the text in the list.

Lists

- The list-style-type Property
- The list-style-type property allows you to control the shape or style of bullet point (also known as a marker) in the case of unordered lists and the style of numbering characters in ordered lists.
- By default, items in an ordered list are numbered with Arabic numerals (1, 2, 3, 5, and so on), whereas in an unordered list, items are marked with round bullets (•).

- But, you can change this default list marker type to any other type such as roman numerals, latin letters, circle, square, and so on using the list-style-type property.

Lists

- The list-style-position Property
- The list-style-position property indicates whether the marker should appear inside or outside of the box containing the bullet points. It can have one the two values –

1	**none** NA
2	**inside** If the text goes onto a second line, the text will wrap underneath the marker. It will also appear indented to where the text would have started if the list had a value of outside.
3	**outside** If the text goes onto a second line, the text will be aligned with the start of the first line (to the right of the bullet).

Lists

- The list-style-image Property
- The list-style-image allows you to specify an image so that you can use your own bullet style.
- The syntax is similar to the background-image property with the letters url starting the value of the property followed by the URL in brackets.
- If it does not find the given image then default bullets are used.