HTML5 and CSS3 Introductory

Second Edition

Unit E

Formatting Text with CSS

Objectives

- Assess web fonts
- Declare a font family
- Use a custom font
- Declare font size and line height
- Implement bold and italics

Objectives (continued)

- Style pseudo-elements
- Specify hex and RGB colors
- Add shadows
- Create a media query

Assess Web Fonts

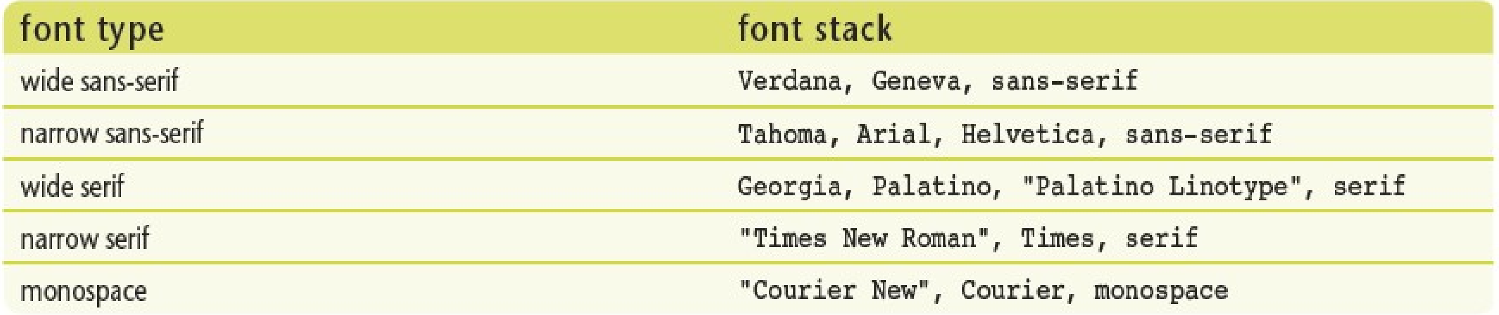
- Web page font display limited by fonts available on users’ machines
- How to implement fonts consistently:
  - Specify multiple font families
    - Font stack: List of font families in order of preference, separated by commas
  - Specify a generic font family
    - Generic font families: grouping of font families according to shared characteristics
    - Add to end of font stack

Assess Web Fonts (continued)

- How to implement fonts consistently (continued):
  - Use downloadable fonts
    - User agent downloads and applies fonts not installed on user’s computer
    - Upload file containing elements of the font family to web publishing location or reference licensed downloadable font
    - Add `@font-face` rule to style sheet
      - Indicates font name and location of necessary files

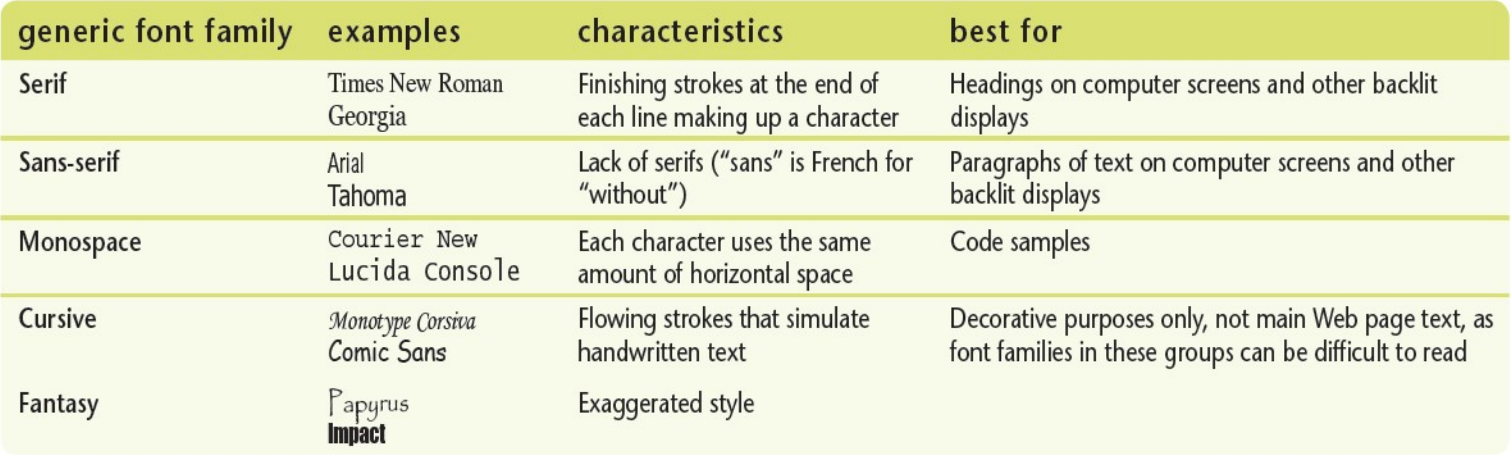
Assess Web Fonts (continued)

- Commonly used font stacks



font type	font stack
wide sans-serif	`Verdana, Geneva, sans-serif`
narrow sans-serif	`Tahoma, Arial, Helvetica, sans-serif`
wide serif	`Georgia, Palatino, "Palatino Linotype", serif`
narrow serif	`"Times New Roman", Times, serif`
monospace	`"Courier New", Courier, monospace`

- Generic font families



generic font family	examples	characteristics	best for
Serif	Times New Roman Georgia	Finishing strokes at the end of each line making up a character	Headings on computer screens and other backlit displays
Sans-serif	Arial Tahoma	Lack of serifs ("sans" is French for "without")	Paragraphs of text on computer screens and other backlit displays
Monospace	Courier New Lucida Console	Each character uses the same amount of horizontal space	Code samples
Cursive	Monotype Corsiva Comic Sans	Flowing strokes that simulate handwritten text	Decorative purposes only, not main Web page text, as font families in these groups can be difficult to read
Fantasy	Papyrus Impact	Exaggerated style	

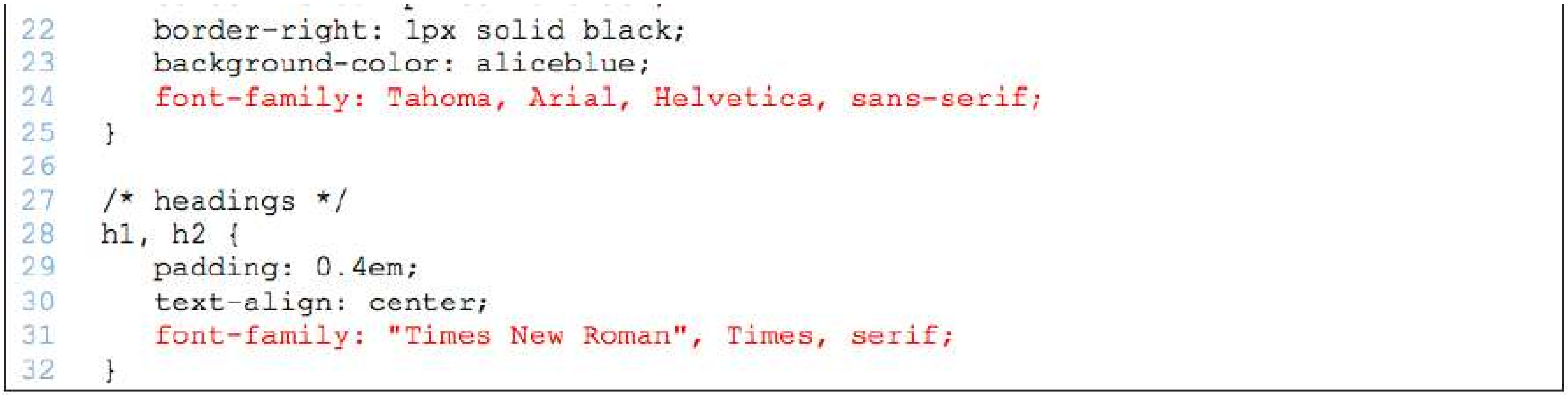
Unit E

Declare a Font Family

- `font-family` property: Used to specify fonts in CSS
  - Value is font stack that includes font family name(s) and ends with generic font family name
  - Can be included in any style rule to apply to elements selected in that rule
- Test all fonts in your font stack
  - Use browser developer tools to test and not permanently changing the CSS code

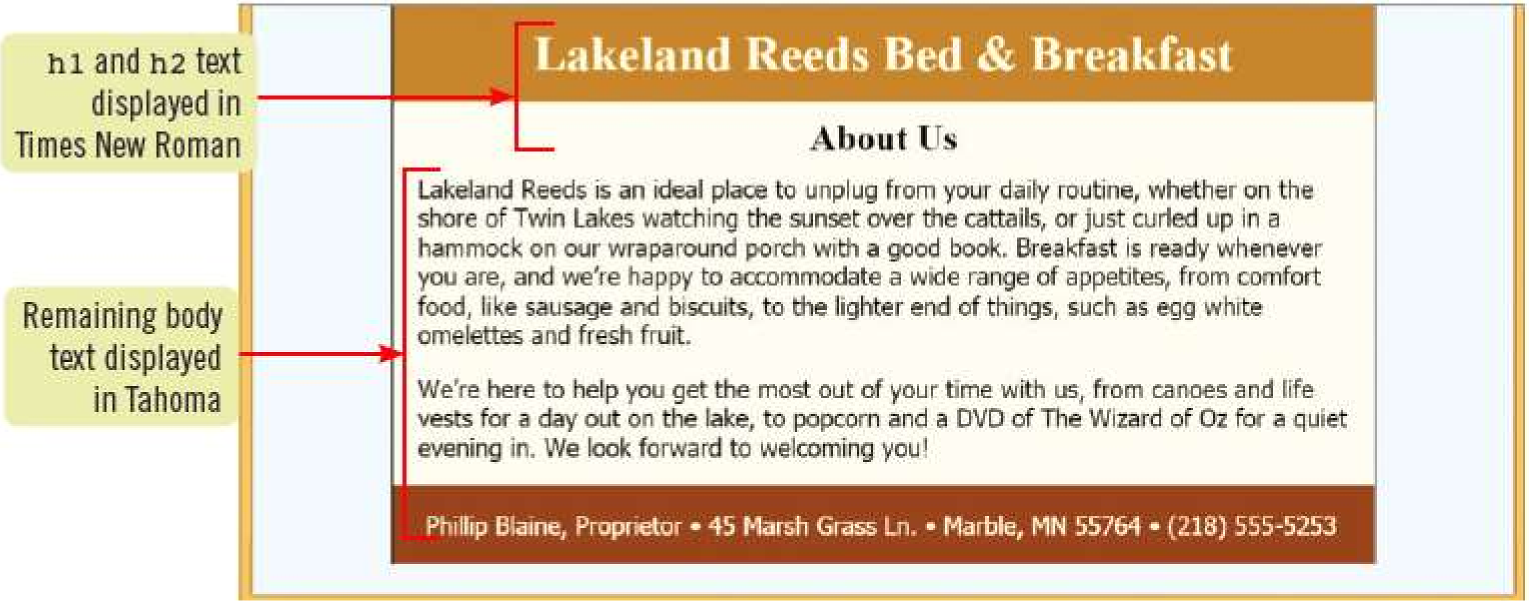
Unit E Declare a Font Family (continued)

- Code with `font-family` declarations and display



```
    border-right: 1px solid black;
    background-color: aliceblue;
    font-family: Tahoma, Arial, Helvetica, sans-serif;
}

/* headings */
h1, h2 {
    padding: 0.4em;
    text-align: center;
    font-family: "Times New Roman", Times, serif;
}
```



h1 and h2 text displayed in Times New Roman

Remaining body text displayed in Tahoma

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About Us

Lakeland Reeds is an ideal place to unplug from your daily routine, whether on the shore of Twin Lakes watching the sunset over the cattails, or just curled up in a hammock on our wraparound porch with a good book. Breakfast is ready whenever you are, and we're happy to accommodate a wide range of appetites, from comfort food, like sausage and biscuits, to the lighter end of things, such as egg white omelettes and fresh fruit.

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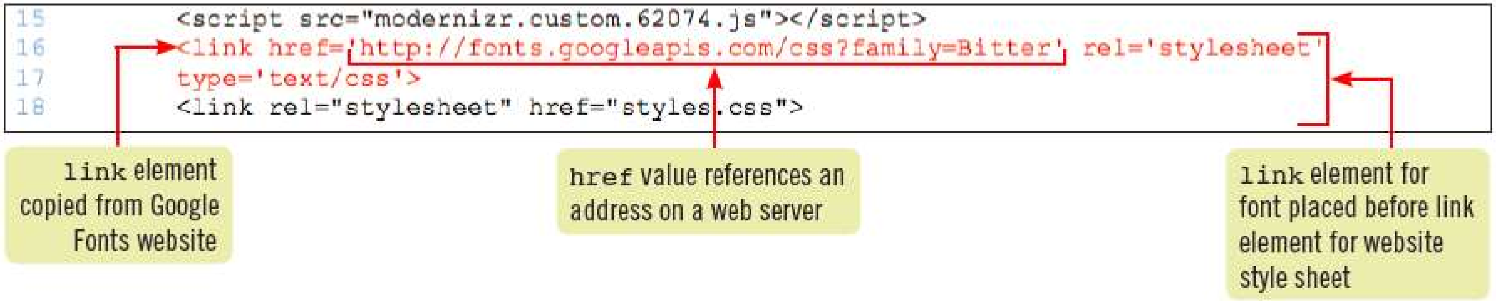
Use a Custom Font

- Custom fonts help to
  - Create uniformity
  - Add wider font possibilities
- Available online, e.g.
  - Google.com/fonts
  - Defaults to only the normal version of font
  - Make selections to make other versions, such as bold or italic, available

Unit E

Use a Custom Font (continued)

- Code with link element to custom font



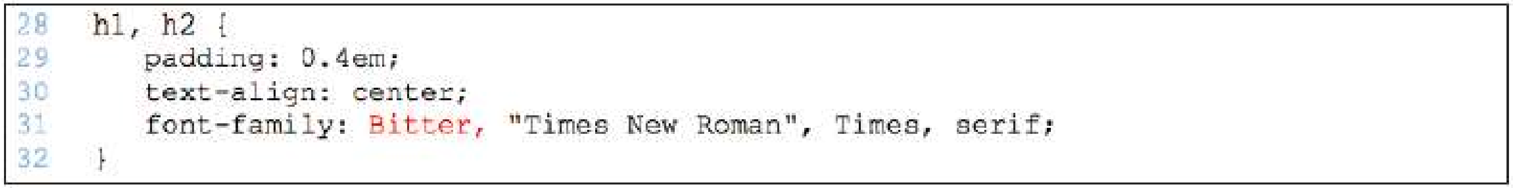
```
<script src="modernizr.custom.62074.js"></script>
<link href='http://fonts.googleapis.com/css?family=Bitter' rel='stylesheet'
type='text/css'>
<link rel="stylesheet" href="styles.css">
```

link element copied from Google Fonts website

href value references an address on a web server

link element for font placed before link element for website style sheet

- Custom font added to font stack



```
h1, h2 {
    padding: 0.4em;
    text-align: center;
    font-family: Bitter, "Times New Roman", Times, serif;
}
```

Declare Font Size and Line Height

- `font-size` property: used to specify font size of an element
  - Can specify size in many different units
- Useful to specify font-sizes in style sheet to standardize visual display of font size in different browsers
  - Specify `html` element in `px`
  - Specify other elements in `em` or `rem`

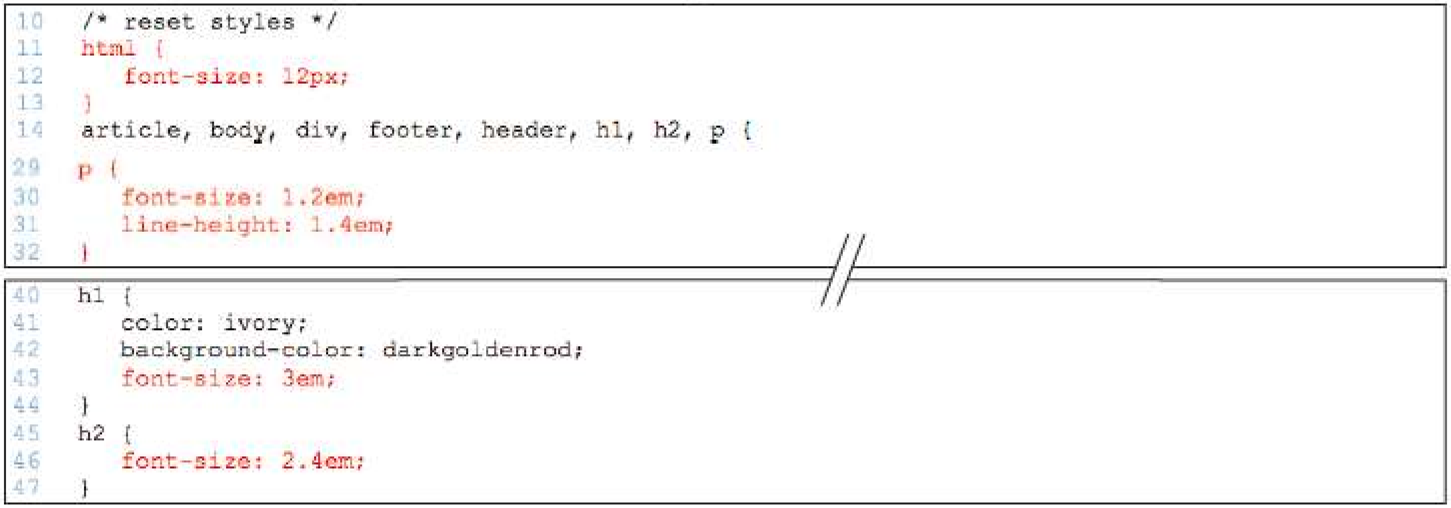
Declare Font Size and Line Height (continued)

- By default, each font family includes blank space above and below every line of text
- Use `line-height` property to set minimum amount of vertical space each line occupies
- Adjusting line-height helps create white space, which is used for visual effect

Unit E

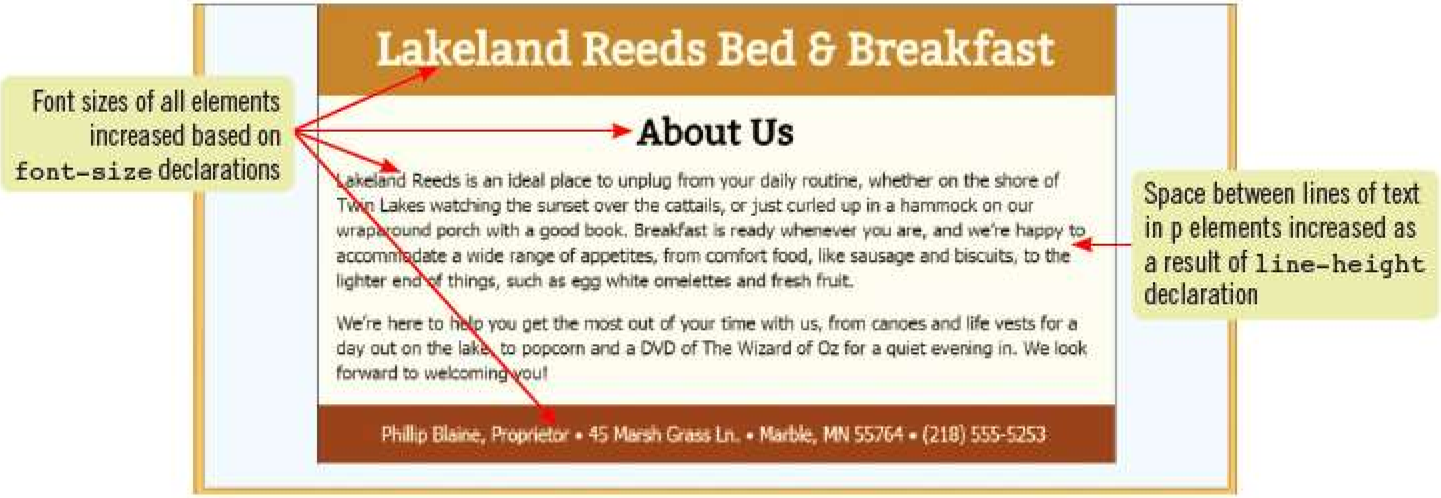
Declare Font Size and Line Height (continued)

- Code and resulting presentation



```
/* reset styles */
html {
   font-size: 12px;
}
article, body, div, footer, header, h1, h2, p {
p {
   font-size: 1.2em;
   line-height: 1.4em;
}
```

```
h1 {
   color: ivory;
   background-color: darkgoldenrod;
   font-size: 3em;
}
h2 {
   font-size: 2.4em;
}
```



Font sizes of all elements increased based on `font-size` declarations

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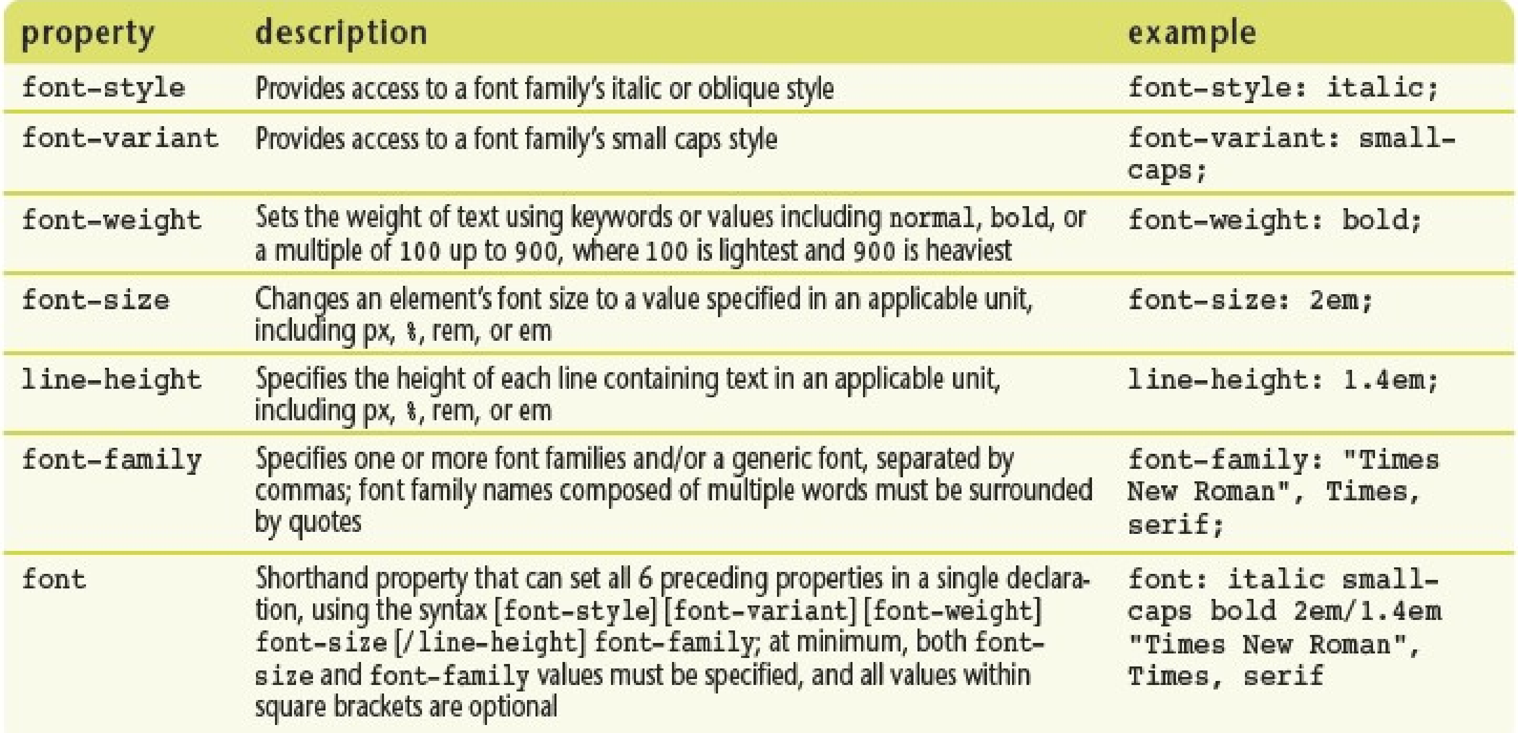
Space between lines of text in p elements increased as a result of `line-height` declaration

Implement Bold and Italics

- Bold and italics often applied to words or phrases
- `Use span` element to isolate specific sections for formatting:
  - `span` element creates an inline element
    - Does not fill space of parent element
    - Is not rendered with line breaks before or after
    - Assign `class` value to `span` element

Implement Bold and Italics (continued)

- CSS font properties to format text
  - `Font-weight` for bold
  - `Font-style` for italic

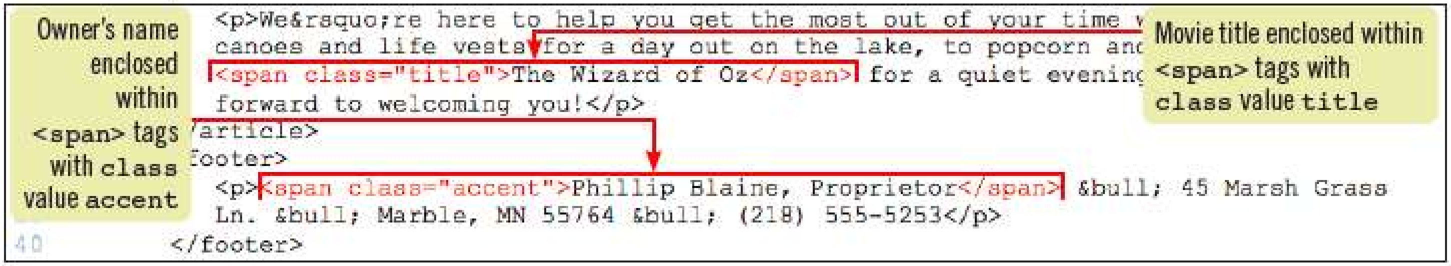


property	description	example
`font-style`	Provides access to a font family's italic or oblique style	`font-style: italic;`
`font-variant`	Provides access to a font family's small caps style	`font-variant: small-caps;`
`font-weight`	Sets the weight of text using keywords or values including `normal`, `bold`, or a multiple of `100` up to `900`, where `100` is lightest and `900` is heaviest	`font-weight: bold;`
`font-size`	Changes an element's font size to a value specified in an applicable unit, including px, `%`, rem, or em	`font-size: 2em;`
`line-height`	Specifies the height of each line containing text in an applicable unit, including px, `%`, rem, or em	`line-height: 1.4em;`
`font-family`	Specifies one or more font families and/or a generic font, separated by commas; font family names composed of multiple words must be surrounded by quotes	`font-family: "Times New Roman", Times, serif;`
`font`	Shorthand property that can set all 6 preceding properties in a single declaration, using the syntax [`font-style`] [`font-variant`] [`font-weight`] `font-size` [/`line-height`] `font-family`; at minimum, both `font-size` and `font-family` values must be specified, and all values within square brackets are optional	`font: italic small-caps bold 2em/1.4em "Times New Roman", Times, serif`

Unit E

Implement Bold and Italics (continued)

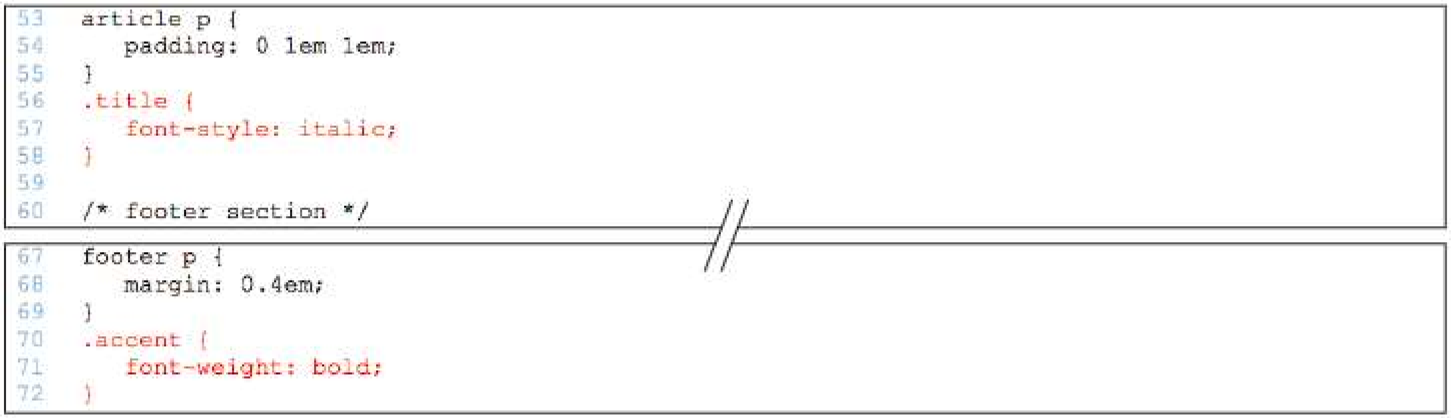
- Span element added



Owner's name enclosed within `<span>` tags with class value accent

```
<p>We&rsquo;re here to help you get the most out of your time w
canoes and life vests for a day out on the lake, to popcorn and
<span class="title">The Wizard of Oz</span> for a quiet evenin
forward to welcoming you!</p>
/article>
footer>
<p><span class="accent">Phillip Blaine, Proprietor</span> &bull; 45 Marsh Grass
Ln. &bull; Marble, MN 55764 &bull; (218) 555-5253</p>
</footer>
```

Movie title enclosed within `<span>` tags with class value title

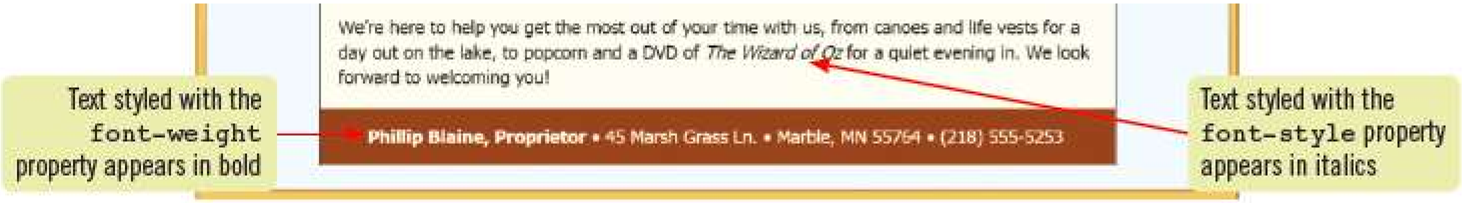


```
article p {
    padding: 0 1em 1em;
}
.title {
    font-style: italic;
}

/* footer section */
```

```
footer p {
    margin: 0.4em;
}
.accent {
    font-weight: bold;
}
```

- span element rendered



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Text styled with the font-weight property appears in bold

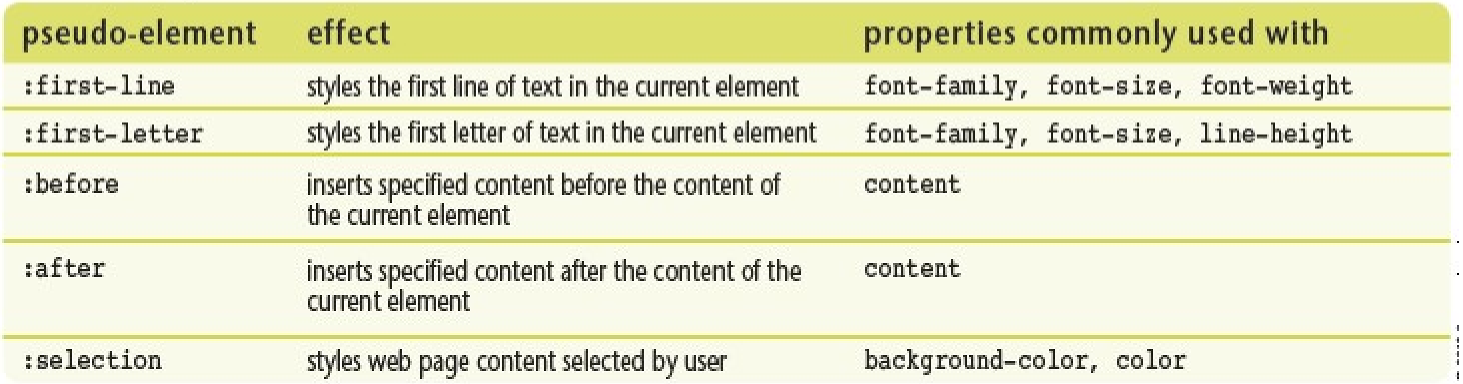
Text styled with the font-style property appears in italics

Style Pseudo-Elements

- Pseudo-element: selector that enables you to isolate a portion of a larger element for styling
  - Selector format example
    - `article p:first-line`
- Create a drop cap
  - Use `:first-letter` pseudo-element
  - Use `float` property
  - Use `line-height` property

Style Pseudo-Elements (continued)

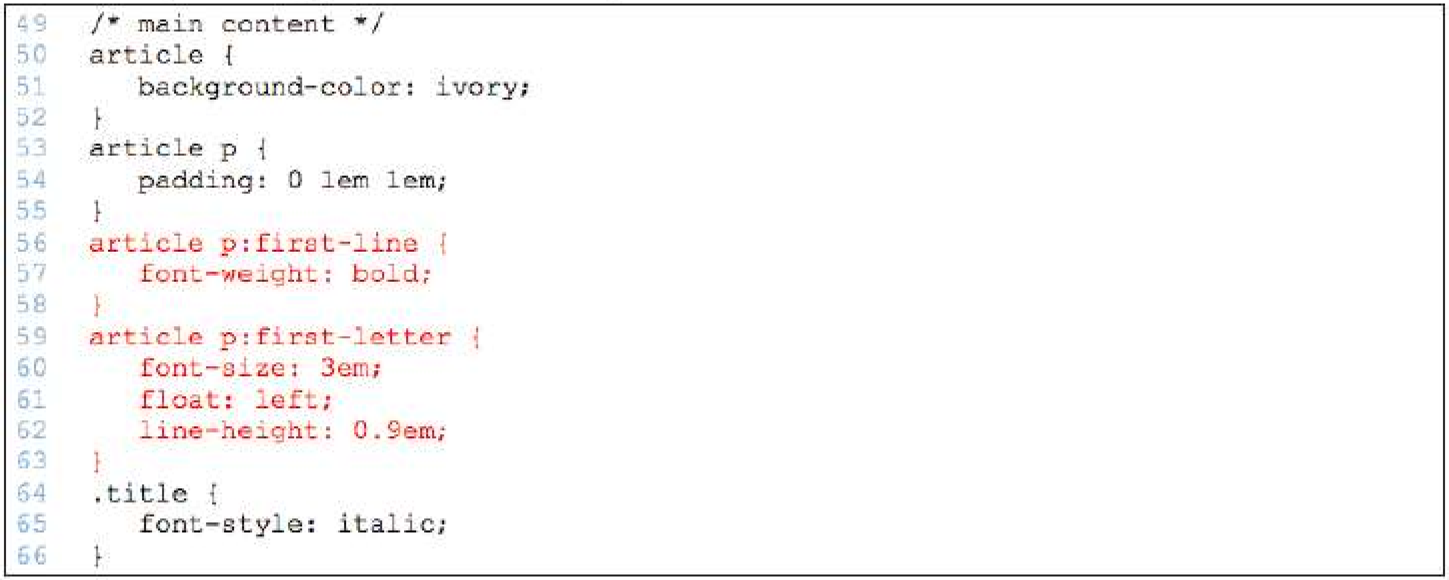
- CSS pseudo-elements



pseudo-element	effect	properties commonly used with
`:first-line`	styles the first line of text in the current element	`font-family, font-size, font-weight`
`:first-letter`	styles the first letter of text in the current element	`font-family, font-size, line-height`
`:before`	inserts specified content before the content of the current element	`content`
`:after`	inserts specified content after the content of the current element	`content`
`:selection`	styles web page content selected by user	`background-color, color`

Style Pseudo-Elements (continued)

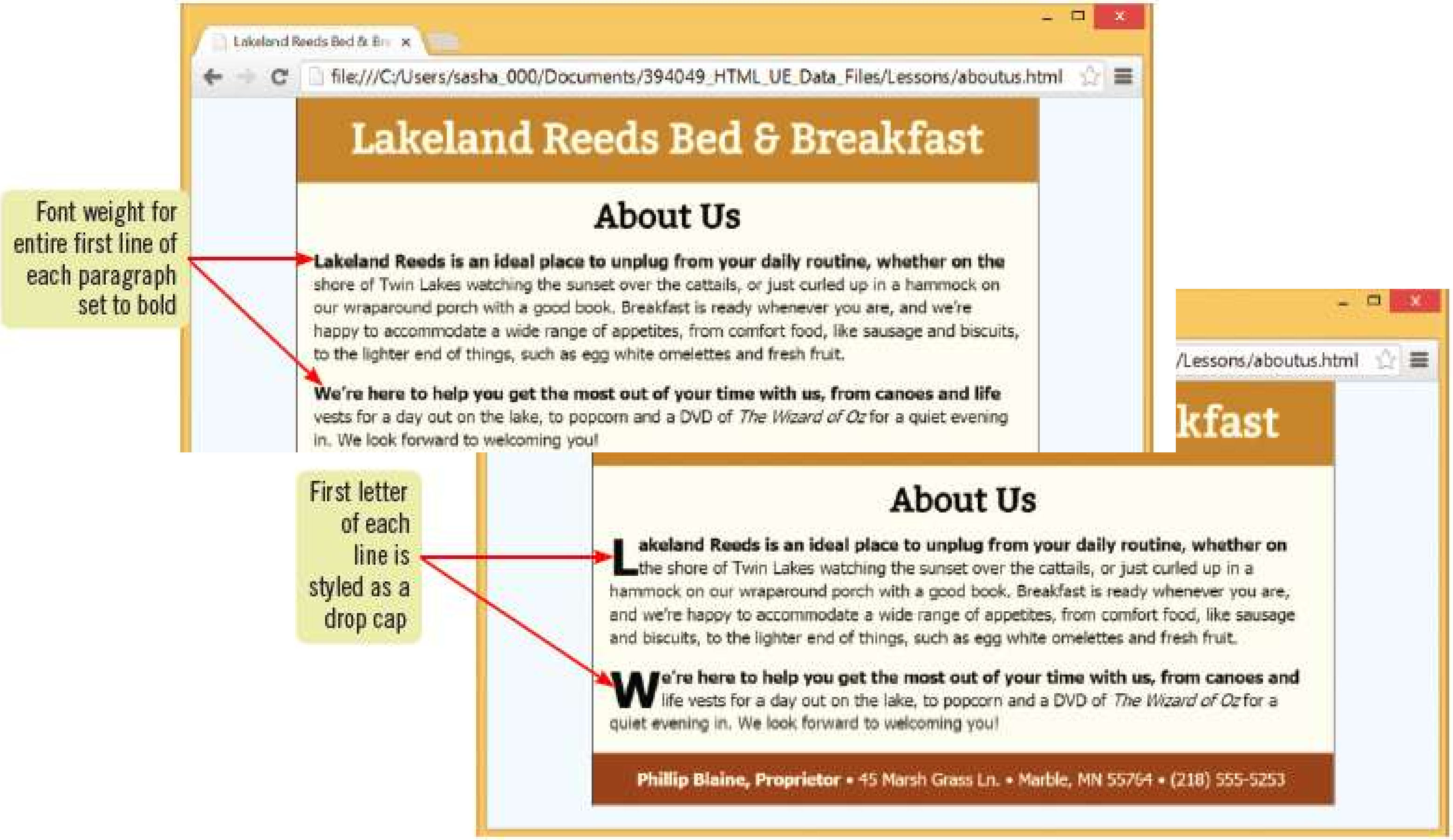
- Code for `:first-line` and `:first-letter` pseudo-elements



```
/* main content */
article {
   background-color: ivory;
}
article p {
   padding: 0 1em 1em;
}
article p:first-line {
   font-weight: bold;
}
article p:first-letter {
   font-size: 3em;
   float: left;
   line-height: 0.9em;
}
.title {
   font-style: italic;
}
```

Style Pseudo-Elements (continued)

- Pseudo-elements rendered in browser



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file:///C:/Users/sasha_000/Documents/394049_HTML_UE_Data_Files/Lessons/aboutus.html

Lakeland Reeds Bed & Breakfast

About Us

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Font weight for entire first line of each paragraph set to bold

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First letter of each line is styled as a drop cap

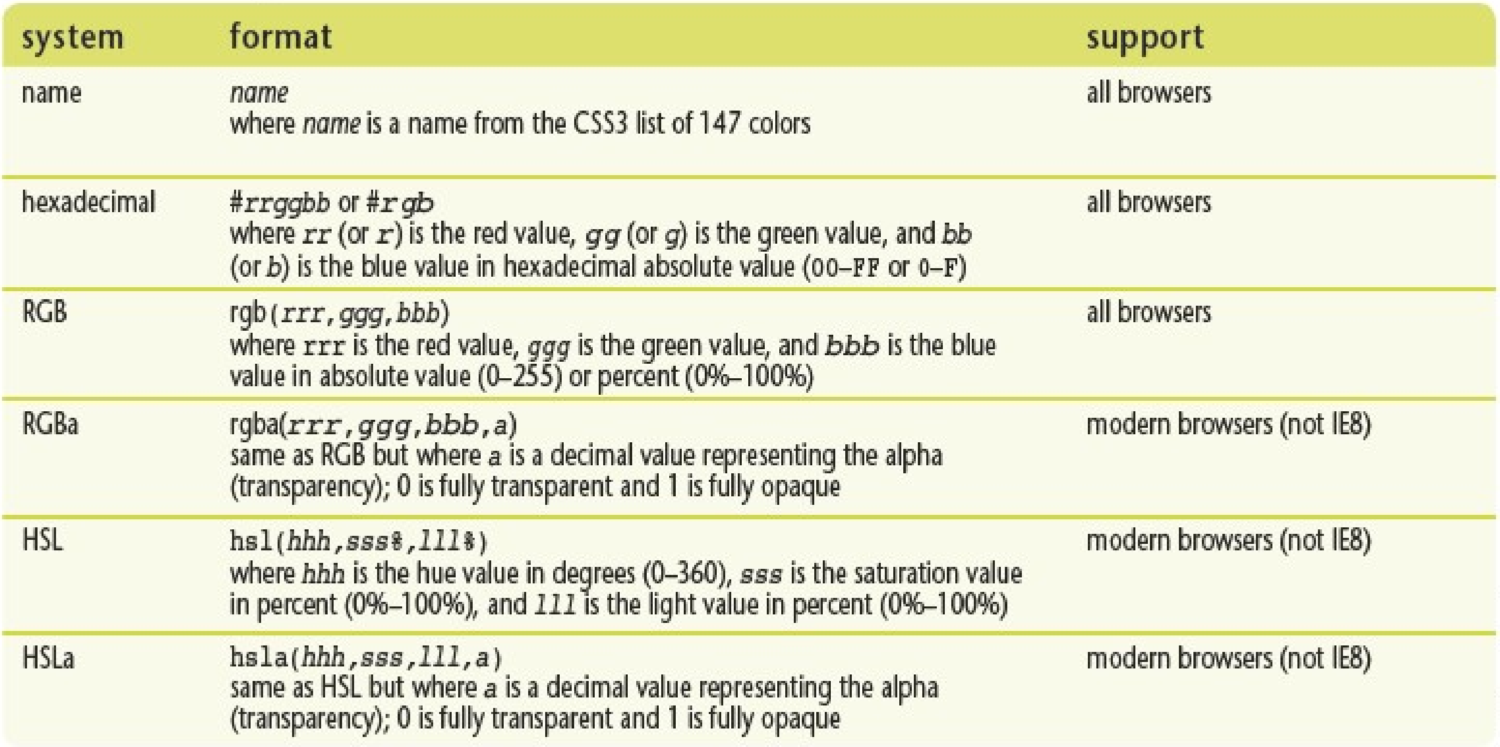
Unit E

Specify Hex and RGB Colors

- `color` and `background-color` properties: used to specify the color of text and other HTML elements
- Four ways to specify colors:
  - color name
  - hexadecimal format
  - `rgb` format, includes `rgba`
  - `hsl` format, includes `hsla`

Specify Hex and RGB Colors (continued)

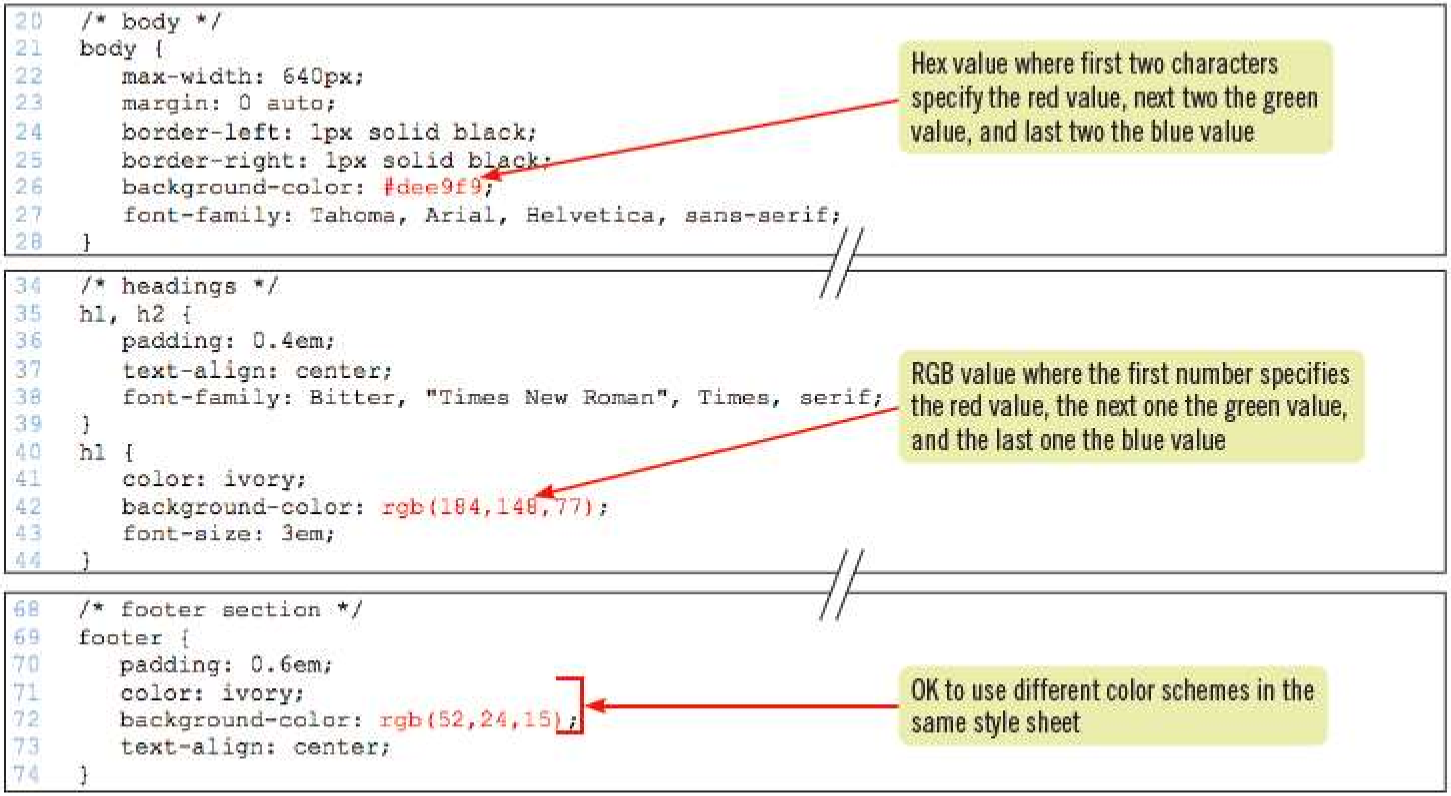
- CSS color systems



system	format	support
name	*name* where *name* is a name from the CSS3 list of 147 colors	all browsers
hexadecimal	#*rrggbb* or #*rgb* where *rr* (or *r*) is the red value, *gg* (or *g*) is the green value, and *bb* (or *b*) is the blue value in hexadecimal absolute value (00–FF or 0–F)	all browsers
RGB	rgb(*rrr*,*ggg*,*bbb*) where *rrr* is the red value, *ggg* is the green value, and *bbb* is the blue value in absolute value (0–255) or percent (0%–100%)	all browsers
RGBa	rgba(*rrr*,*ggg*,*bbb*,*a*) same as RGB but where *a* is a decimal value representing the alpha (transparency); 0 is fully transparent and 1 is fully opaque	modern browsers (not IE8)
HSL	hsl(*hhh*,*sss*%,*lll*%) where *hhh* is the hue value in degrees (0–360), *sss* is the saturation value in percent (0%–100%), and *lll* is the light value in percent (0%–100%)	modern browsers (not IE8)
HSLa	hsla(*hhh*,*sss*,*lll*,*a*) same as HSL but where *a* is a decimal value representing the alpha (transparency); 0 is fully transparent and 1 is fully opaque	modern browsers (not IE8)

Specify Hex and RGB Colors (continued)

- Code using `hex` and `rgb` colors



```
/* body */
body {
   max-width: 640px;
   margin: 0 auto;
   border-left: 1px solid black;
   border-right: 1px solid black;
   background-color: #dee9f9;
   font-family: Tahoma, Arial, Helvetica, sans-serif;
}
```

Hex value where first two characters specify the red value, next two the green value, and last two the blue value

```
/* headings */
h1, h2 {
   padding: 0.4em;
   text-align: center;
   font-family: Bitter, "Times New Roman", Times, serif;
}
h1 {
   color: ivory;
   background-color: rgb(184,148,77);
   font-size: 3em;
}
```

RGB value where the first number specifies the red value, the next one the green value, and the last one the blue value

```
/* footer section */
footer {
   padding: 0.6em;
   color: ivory;
   background-color: rgb(52,24,15);
   text-align: center;
}
```

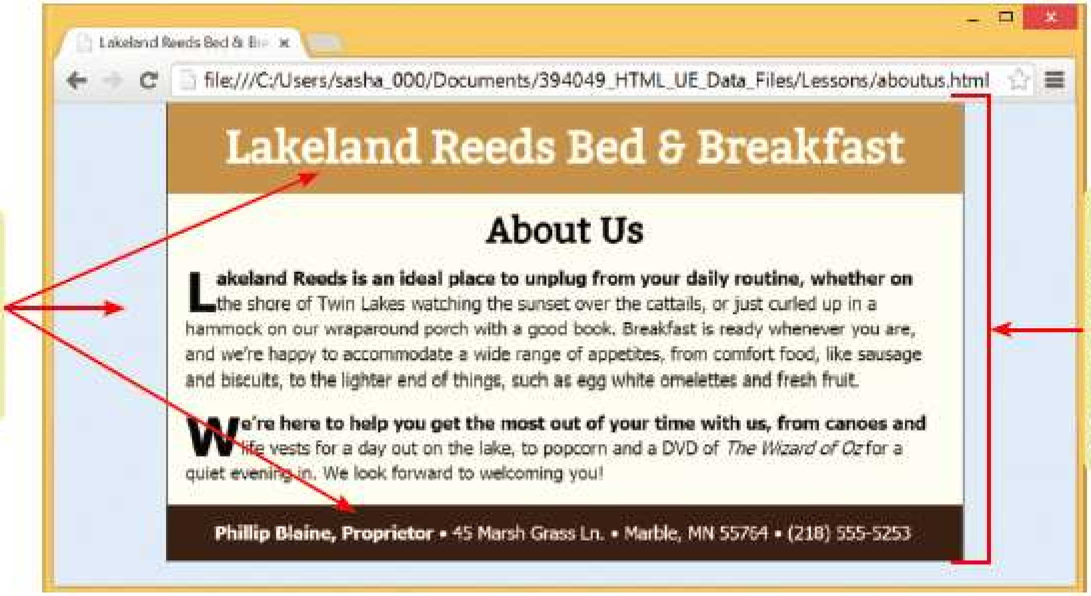
OK to use different color schemes in the same style sheet

Unit E

Specify Hex and RGB Colors (continued)

- `hex` and `rgb` color codes rendered in a browser

Background colors of `h1`, `body`, and `footer` elements changed



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Your colors may differ but you should still notice a difference from the colors displayed on your screen before refreshing

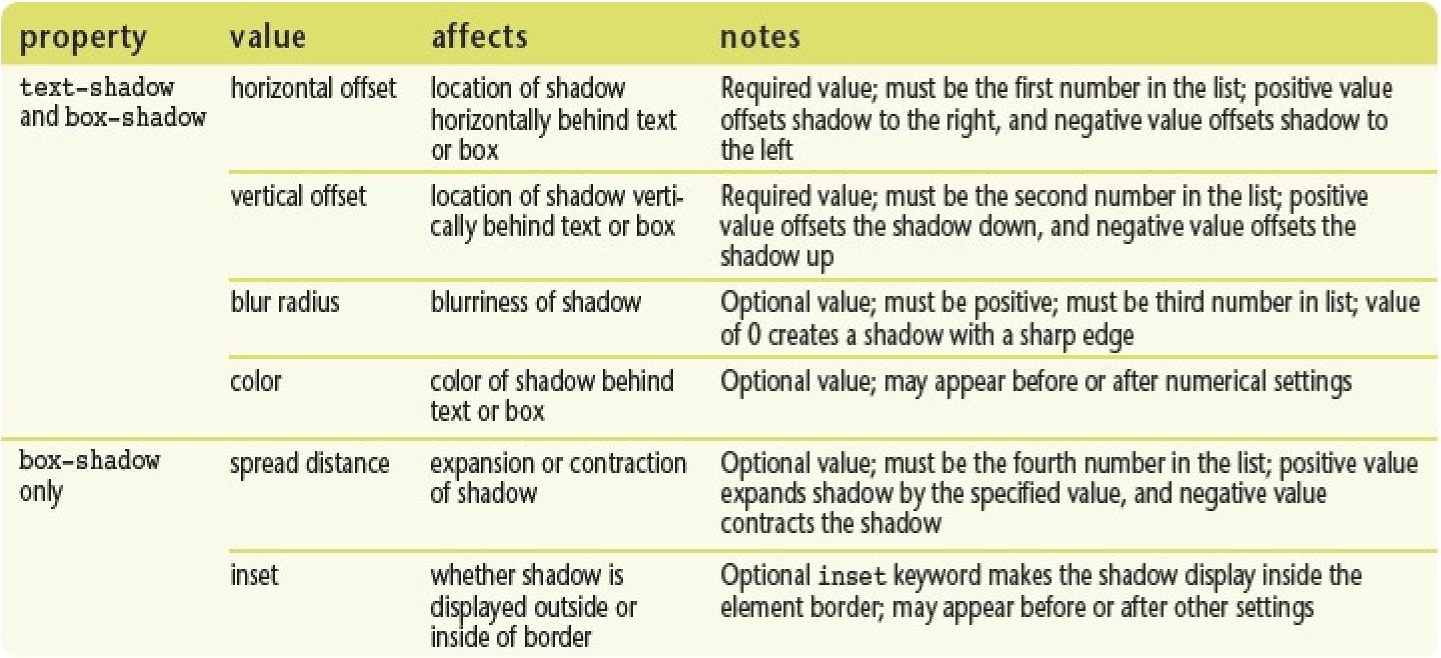
Add Shadows

- `text-shadow`: creates the appearance of a shadow behind text
- `box-shadow`: creates the appearance of a shadow behind an element
- `text-shadow` and `box-shadow` both
  - Support four values: horizontal offset, vertical offset, blur, and shadow color
- `box-shadow` also supports
  - Spread distance and inset

Unit E

Add Shadows (continued)

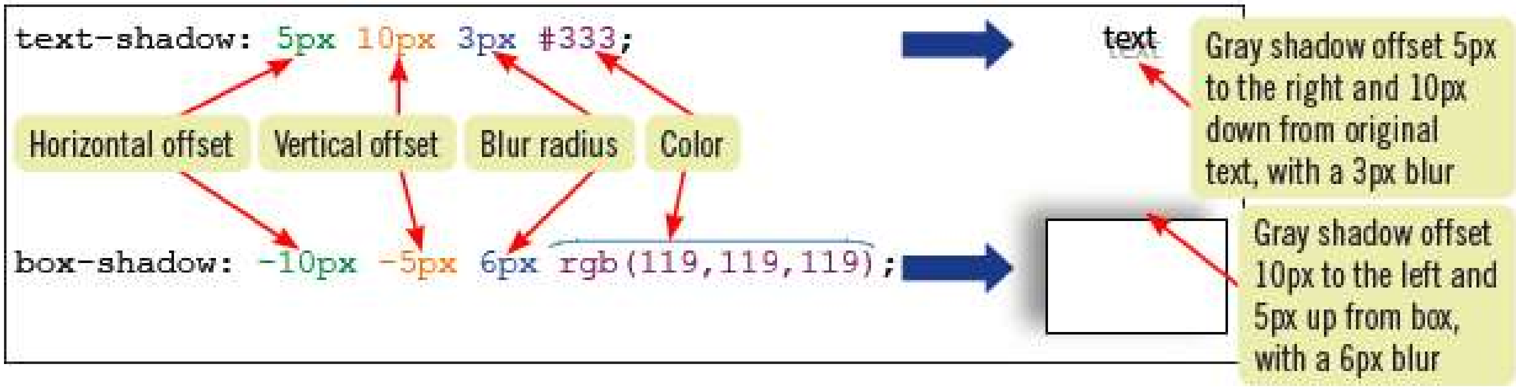
- Syntax of the `text-shadow` and `box-shadow` properties



property	value	affects	notes
`text-shadow` and `box-shadow`	horizontal offset	location of shadow horizontally behind text or box	Required value; must be the first number in the list; positive value offsets shadow to the right, and negative value offsets shadow to the left
	vertical offset	location of shadow vertically behind text or box	Required value; must be the second number in the list; positive value offsets the shadow down, and negative value offsets the shadow up
	blur radius	blurriness of shadow	Optional value; must be positive; must be third number in list; value of 0 creates a shadow with a sharp edge
	color	color of shadow behind text or box	Optional value; may appear before or after numerical settings
`box-shadow` only	spread distance	expansion or contraction of shadow	Optional value; must be the fourth number in the list; positive value expands shadow by the specified value, and negative value contracts the shadow
	inset	whether shadow is displayed outside or inside of border	Optional `inset` keyword makes the shadow display inside the element border; may appear before or after other settings

Add Shadows (continued)

- Examples of `text-shadow` and `box-shadow`



```
text-shadow: 5px 10px 3px #333;
box-shadow: -10px -5px 6px rgb(119,119,119);
```

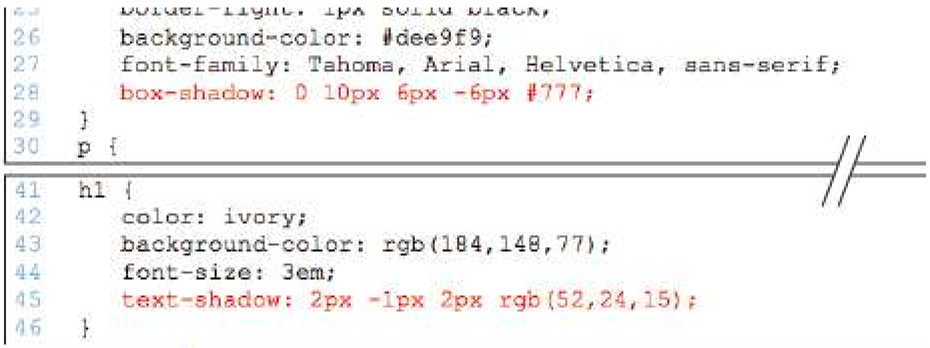
Gray shadow offset 5px to the right and 10px down from original text, with a 3px blur

Gray shadow offset 10px to the left and 5px up from box, with a 6px blur

Unit E

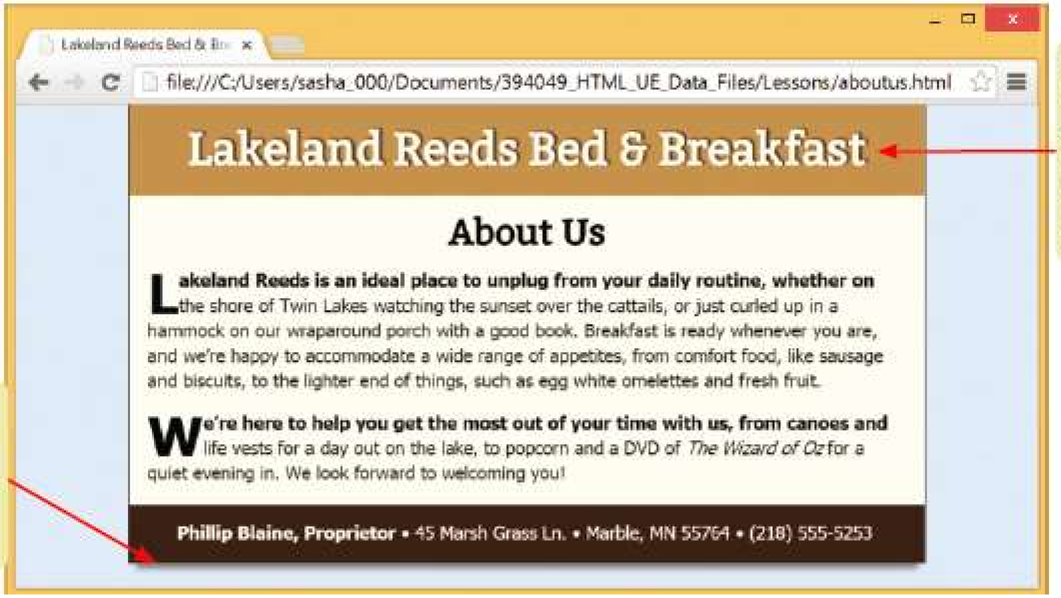
Add Shadows (continued)

- Code for `text-shadow` and `box-shadow` and resulting web page



```
    border-right: 1px solid black;
    background-color: #dee9f9;
    font-family: Tahoma, Arial, Helvetica, sans-serif;
    box-shadow: 0 10px 6px -6px #777;
}
p {
```

```
h1 {
    color: ivory;
    background-color: rgb(184,148,77);
    font-size: 3em;
    text-shadow: 2px -1px 2px rgb(52,24,15);
}
```



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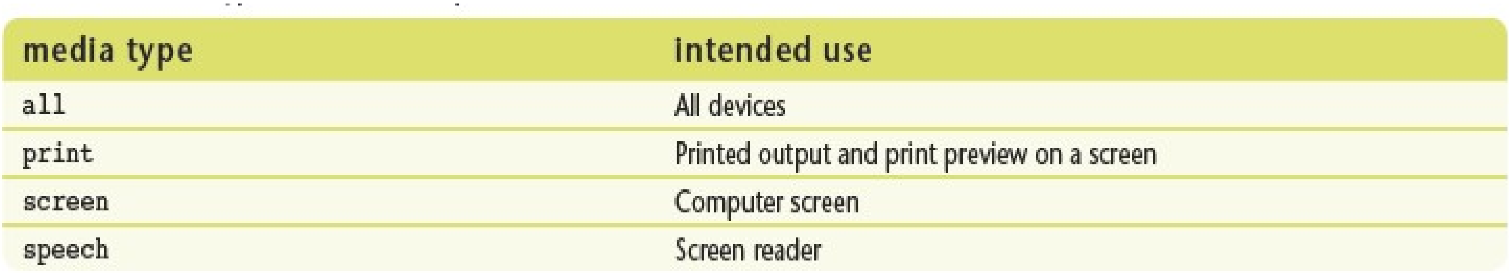
Heading text formatted with dark brown shadow that extends above it and to the right

Box shadow added to bottom of `body` element to create raised appearance

Create a Media Query

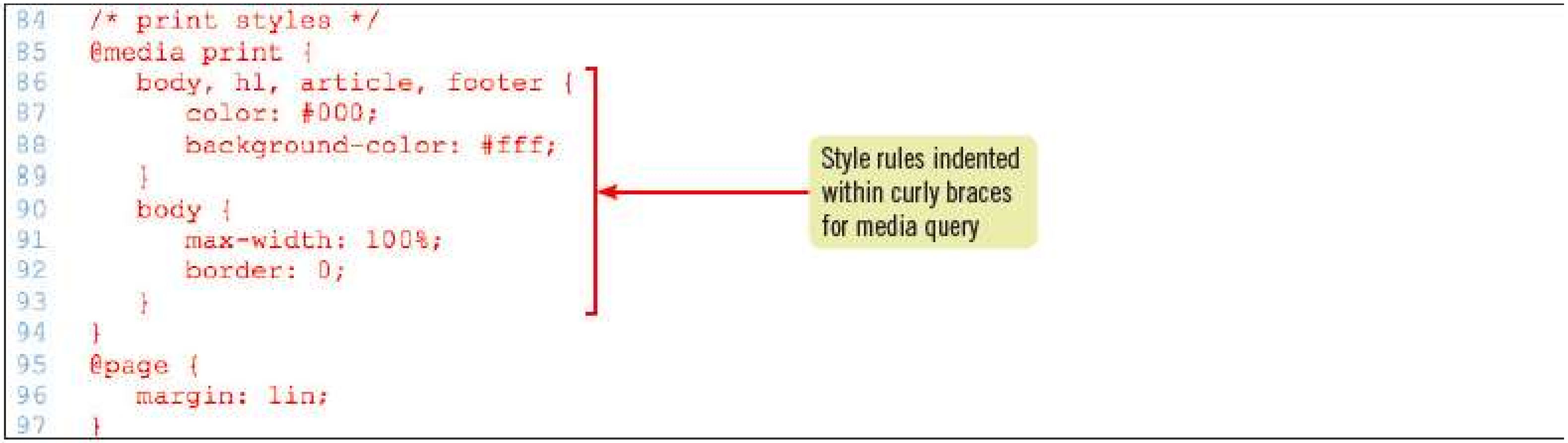
- Media queries: used to create a group of rules for a specific device
  - Starts with `@media`
  - Lists one or more values for media type
- Media type values for media queries



media type	intended use
`all`	All devices
`print`	Printed output and print preview on a screen
`screen`	Computer screen
`speech`	Screen reader

Create a Media Query (continued)

- Code for media query for printed output



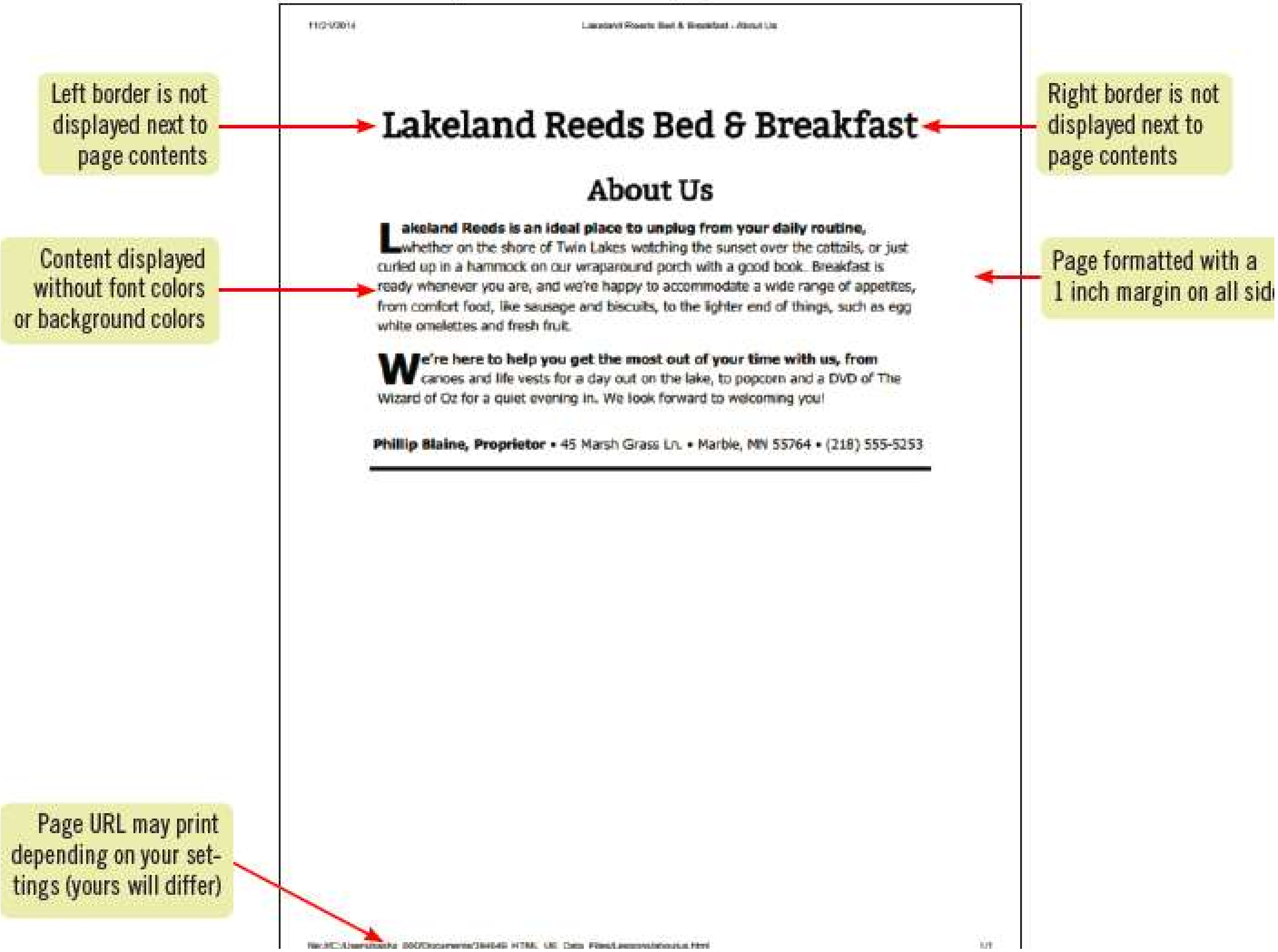
```
/* print styles */
@media print {
   body, h1, article, footer {
      color: #000;
      background-color: #fff;
   }
   body {
      max-width: 100%;
      border: 0;
   }
}
@page {
   margin: 1in;
}
```

Style rules indented within curly braces for media query

Unit E

Create a Media Query (continued)

- Printed output based on media query



11/21/2014 Lakeland Reeds Bed & Breakfast - About Us

Lakeland Reeds Bed & Breakfast

About Us

Lakeland Reeds is an ideal place to unplug from your daily routine, whether on the shore of Twin Lakes watching the sunset over the cattails, or just curled up in a hammock on our wraparound porch with a good book. Breakfast is ready whenever you are, and we're happy to accommodate a wide range of appetites, from comfort food, like sausage and biscuits, to the lighter end of things, such as egg white omelettes and fresh fruit.

We're here to help you get the most out of your time with us, from canoes and life vests for a day out on the lake, to popcorn and a DVD of The Wizard of Oz for a quiet evening in. We look forward to welcoming you!

Phillip Blaine, Proprietor • 45 Marsh Grass Ln. • Marble, MN 55764 • (218) 555-5253

[illegible] 1/1

Left border is not displayed next to page contents

Right border is not displayed next to page contents

Content displayed without font colors or background colors

Page formatted with a 1 inch margin on all sid

Page URL may print depending on your settings (yours will differ)

Summary

- It is important to implement fonts so that they will be displayed consistently on different user agents
- Font stacks are declared using the `font-family` property
- `span` element: generic element used to isolate a portion of another element
  - Used to create an inline element

Summary (continued)

- Use custom fonts to widen font possibilities and to create uniformity
- Different aspects of font can be set using CSS properties, such as:
  - `font-size` property: set the font size
  - `font-weight` property: make font bold
  - `font-style` property: make font italic
- Use `line-height` property to create space above and below every line of text

Unit E

Summary (continued)

- `span` element: generic element used to isolate a portion of another element
  - Used to create an inline element
  - Used to apply bold/italic to text specified by `span` element
- Pseudo-elements to style a portion of an element
- `:before` and `:after` allow you to generate repeated content from style rules, without changing HTML code

Summary (continued)

- In CSS, colors specified by name, `rgb/rgba`, `hex`, or `hsl/hsla` value
  - color property: sets font color
  - background property: sets background color
- `text-shadow` and `box-shadow` properties used to create shadows
  - both support: horizontal/vertical offset, blur radius, color
  - `box-shadow` only supports: spread distance, inset

Summary (continued)

- Media query specifies style rules for a specific device
  - Starts with `@media`
  - Supports media type values: `all`, `print`, `screen`, and `speech`