*Apply your
knowledge of
CSS text and
color styles to
format a Web
page for a
cryptographic
institution.*

APPLY
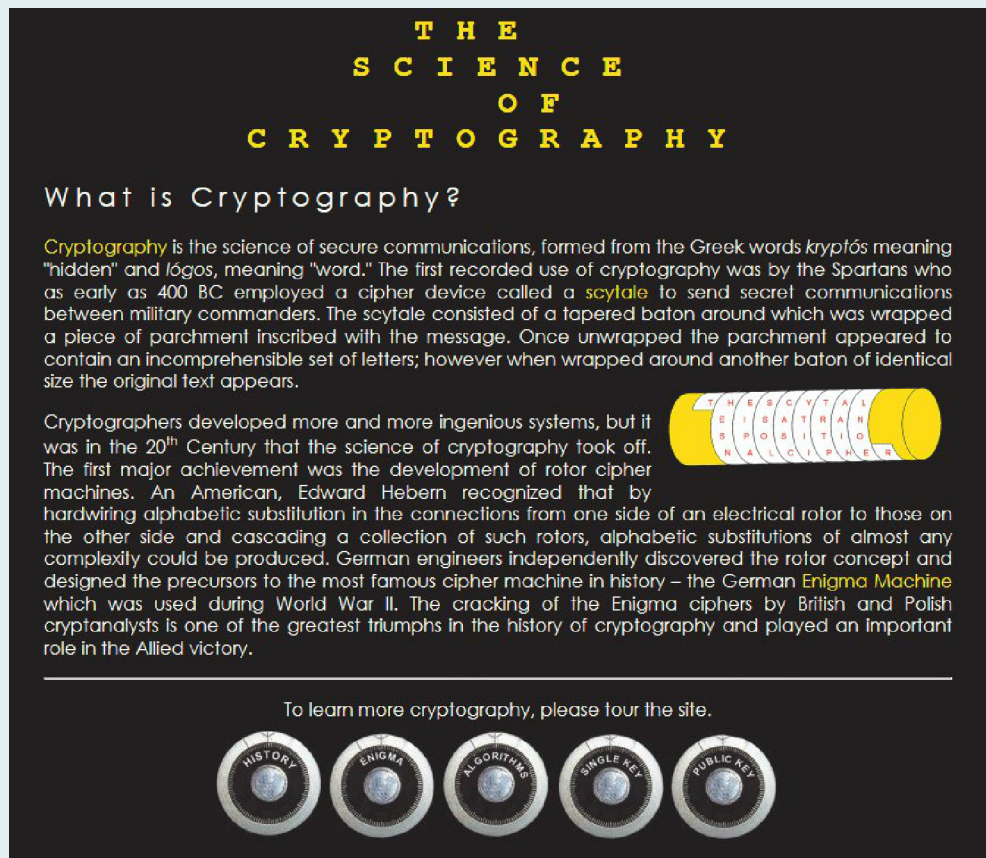
Case Problem 1

**Data Files needed for this Case Problem: algo.htm, c_layout.css, c_stylestxt.css,
crypttxt.htm, enigma.htm, history.htm, locks.jpg, logo.gif, modernizr-1.5.js, public.htm,
scytale.gif, single.htm**

International Cryptographic Institute Sela Dawes is the media representative for the
ICI, the International Cryptographic Institute. The ICI is an organization of cryptographers
who study the science and mathematics of secret codes, encrypted messages, and code
breaking. Part of the ICI's mission is to inform the public about cryptography and data
security. Sela has asked you to work on a Web site containing information about cryp-
tography for use by high school science and math teachers. She wants the design to be
visually interesting in order to help draw students into the material. Figure 3-62 shows a
preview of your design.

Figure 3-62 Cryptography home page

Complete the following:

1. In your text editor, open the **crypttxt.htm** and **c_stylestxt.css** files from the
   tutorial.03\case1 folder included with your Data Files. Enter *your name* and *the
   date* in the comment section of each file. Save the files as **crypt.htm** and **c_styles.css**
   respectively.

2. Go to the **crypt.htm** file in your text editor, and review the contents and structure of
   the document. Link the file to the **c_layout.css** style sheet.

3. Locate the three `strong` elements in the two paragraphs and add the `class` attribute to each element with the class value set to **keyword**.

4. Locate the *locks.jpg* inline image, and below the image create an image map with the name **locks**. Add the following hotspots to the image map:

   a. A circular hotspot linked to the **history.htm** file, centered at the coordinates (**52, 52**) with a radius of **43** pixels; the alternate text should be **History**.

   b. A circular hotspot with a radius of **43** pixels located at the coordinates (**155, 52**); link the hotspot to the **enigma.htm** file, and with the alternate text set to **Enigma**.

   c. A circular hotspot with a radius of **43** pixels located at the coordinates (**255, 52**); link the hotspot to the **algo.htm** file and set the alternate text to **Algorithms**.

   d. A circular hotspot with a radius of **43** pixels located at the coordinates (**355, 52**); link the hotspot to the **single.htm** file and set the alternate text to **Single Key**.

   e. A circular hotspot with a radius of **43** pixels located at the coordinates (**455, 52**); link the hotspot to the **public.htm** file and set the alternate text to **Public Key**.

5. Apply the **locks** image map to the *locks.jpg* inline image.

6. Save your changes to the **crypt.htm** file.

7. Go to the **c_styles.css** style sheet file in your text editor. Set the color of the page body background and text to **black** and **white**, respectively. Set the default font to a list consisting of **Century Gothic** followed by a generic **sans-serif** font.

8. Add a style rule for `h1` headings nested within a `header` element to: a) display the text in **yellow**; b) use **Courier New**, **Courier**, or another **monospace** font; c) set the font size to **28** pixels with a kerning of **20** pixels; and d) **center** the text.

9. Add a style rule for `h2` headings nested within an `article` element to: a) set the font size to **24** pixels; b) display the text without boldface; and c) set the kerning to **5** pixels.

10. Align paragraph text within the `article` element using full justification.

11. For `strong` elements belonging to the `keyword` class, create a style rule that displays the text in a **yellow**, non-bold font.

12. Center the contents of paragraphs nested within the `footer` element.

⊕ **EXPLORE**

13. You don't want image maps to appear with a colored border. To remove the border, create a style rule for inline images that contain the `usemap` attribute and set the border width to **0** pixels.

14. Document your work with style comments and then save your changes to the file.

15. Return to the **crypt.htm** file in your text editor and link the file to the **c_styles.css** style sheet.

16. Open **crypt.htm** in your Web browser and confirm that it matches the design shown in Figure 3-62.

17. Submit your completed files to your instructor, in either printed or electronic form, as requested.

Case Problem 2

Data Files needed for this Case Problem: bmtourtxt.htm, modernizr-1.5.js, mw_layout.css, mw_stylestxt.css, mwlogo.png, wheelmarker.png

Mountain Wheels   Adriana and Ivan Turchenko are the co-owners of Mountain Wheels, a bike shop and touring agency in Littleton, Colorado. One of their most popular tours is the Bike the Mountains Tour, a six-day excursion over some of the highest roads in Colorado. Adriana wants to update the company's Web site to provide more information about the Bike the Mountains Tour. She already has had a colleague design a three-column layout with a list of links in the first column and descriptive text in the second and third columns. She has asked for your help in completing the design by formatting the text and colors in the page. Figure 3-63 shows a preview of the Web page you'll create.

Figure 3-63	Bike the Mountains page

Complete the following:

1. Open the **bmtourtxt.htm** and **mw_stylestxt.css** files from the tutorial.03\case2 folder. Enter *your name* and *the date* in the comment section of each file. Save the files as **bmtour.htm** and **mw_styles.css** in the same folder.

2. Return to the **bmtour.htm** file in your text editor. Link the file to the **mw_layout.css** style sheet. Take some time to review the contents and structure of the document.

3. You need to name different elements within the document using the `id` attribute. Add the following ids to the document: a) name the first `header` element **pageheader** and the second `header` element **articleheader**; and b) name the first `section` element **leftsection** and the second `section` element **rightsection**.

4. Save your changes to the file and then go to the **mw_styles.css** style sheet in your text editor.

5. Set the default font for the page body to a font list containing **Tahoma**, **Geneva**, and **sans-serif**.

6. For the `articleheader` id, apply a style rule that: a) sets the font size to **18** pixels and removes boldface; b) sets the kerning to **7** pixels; and c) centers the text.

7. Set the background color of the navigation list to the value (**125, 120, 89**) and set the line height to **3em**. Remove the bullet markers from the navigation list.

8. For hypertext links within the navigation list, create a style rule that: a) sets the font color to **white** for older browsers, and to **white** with 50% opacity for newer browsers; and b) removes the underlining from the link text.

EXPLORE
9. When a user hovers the mouse pointer over list items in the navigation list, change the background color to the value (**131, 121, 36**) and display the image file *wheelmarker.png* as the bullet image. When a user hovers the mouse pointer over a hypertext link in the navigation list, change the font color to **yellow** for older browsers, and to **white** with 100% opacity for newer browsers.

10. For paragraphs that are direct children of the `leftsection` id, set the font size to **22** pixels. Also, for the first paragraph that is also a direct child of the `leftsection` id, display the first line of the paragraph in uppercase.

11. For the `blockquote` element, create a style rule to set: a) the background color to (**131, 121, 36**); b) the font color to **white**; c) the font size to **16** pixels; and d) the font family to **Comic Sans MS**, **Times**, and cursive.

EXPLORE
12. For paragraphs within the `blockquote` element, create styles to insert a **double quotation mark** directly before and after the text of the paragraph.

13. For `h1` headings within the `rightsection` id, create a style rule to: a) set the font size to **22** pixels and the kerning to **3** pixels; b) remove the boldface from the text; and c) **center** the text. For `h2` headings within the `rightsection` id, create a style rule to: a) set the font size to **18** pixels; b) right-align the text; and c) remove the boldface from the text. Finally, for paragraphs within the `rightsection` id, create a style rule to: a) set the font color to **gray**; b) set the font size to **14** pixels; and c) **justify** the text.

14. For `address` elements within the page footer, create a style rule to: a) set the font size to **16** pixels; b) remove the italic style from the address; and c) **center** the text.

15. Add style comments to document your work and then save your changes to the file.

16. Return to the **bmtour.htm** file in your text editor and link that file to the **mw_styles.css** style sheet.

17. Open the **bmtour.htm** file in your Web browser and confirm that it matches the design and layout shown in Figure 3-63.

18. Submit your completed files to your instructor, in either printed or electronic form, as requested.

CHALLENGE

Case Problem 3

**Data Files needed for this Case Problem: civilwartxt.htm, cw_layout.css,
cw_stylestxt.css, cwphoto.png, modernizr-1.5.js, mwulogo.png, pcphoto.png**

The Civil War and Reconstruction   Peter Craft is a professor of military history at Midwest
University. The college is offering a series of online courses, one of which is *The Civil War
and Reconstruction* taught by Professor Craft. He has developed the online content and
has had a colleague help with the page layout. You've been asked to complete the project
by creating text and color styles. A preview of the sample page is shown in Figure 3-64.

Figure 3-64	Civil War and Reconstruction page

Complete the following:

1. Open the **civilwartxt.htm** and **cw_stylestxt.css** files in your text editor. Add *your
   name* and *the date* to the comment section of each file, and then save the files as
   civilwar.htm and **cw_styles.css**, respectively.

2. Go to the **civilwar.htm** file in your text editor. Take some time to review the content and structure of the Web page. There are two navigation lists in the document. Peter wants the first navigation list to be displayed horizontally and the second navigation list to be displayed vertically. Add the `class` attribute to each `nav` element, setting the class values to **horizontal** and **vertical** respectively.

3. Save your changes to the file, and then go to the **cw_styles.css** file in your text editor.

EXPLORE

4. Peter already has stored the layout styles in the *cw_layout.css* file. Directly after the opening comments, use the `@import` rule to import this style sheet. Add a comment describing the purpose of the `@import` rule.

5. Set the typeface of the page body to the font list **Palatino Linotype**, **Book Antiqua**, **Palatino**, and **serif**.

EXPLORE

6. For every `h1` through `h6` heading, apply styles to: a) set the color to the HSL value of (**212, 0%, 0%**) with an opacity of **0.4**; b) set the font family to **Trebuchet MS**, **Helvetica**, and **sans-serif**; c) remove the boldface; and d) set the kerning and text indent to **5** pixels.

7. For h1 headings that are direct children of a `header` element that is a direct child of the `body` element, set the background color to the HSL value (**212, 100%, 29%**).

8. For an unordered list within the horizontal navigation list, apply styles to: a) display the text in **Century Gothic MS** or another **sans-serif** font; b) set the font size to **14** pixels; c) display the text in **bold**; d) set the kerning to **3** pixels and the line height to **20** pixels; and e) remove the markers from the list.

9. For hypertext links within the horizontal navigation list, set the text to the HSL value (**212, 100%, 70%**) and remove the underlining. When the mouse hovers over a hypertext link in this list, change the font color to the HSL value (**212, 100%, 29%**).

10. Set the background color of the vertical navigation list to the HSL value (**32, 100%, 95%**).

11. For the `h4` element within the vertical navigation list, create a style rule to: a) set the color to the HSL value (**32, 0%, 0%**) with an opacity of **0.5**; and b) set the font size to **18** pixels and the text indent to **15** pixels.

12. Display the ordered list items in the vertical navigation list in an outline style with uppercase Roman numerals for the top level, and uppercase alphabetic letters for the second level. Set the line height of the lists to **2em**.

EXPLORE

13. Set the color of the hypertext links in the vertical navigation list to the HSL value (**212, 100%, 29%**) with an opacity of **0.6**. Remove the underlining from the hypertext links. If the user hovers the mouse pointer over a link in the list, increase the opacity to **1.0** and display the underline.

14. Set the background color of the `section` element to the HSL value (**212, 95%, 90%**).

15. For the first paragraph after the `h2` heading within the `article` element, create a style rule to display the first letter with a font size of **32** pixels.

16. For the paragraph within the page footer, create a style rule that sets the font size to **10** pixels and the line height to **30** pixels and centers the text.

17. Save your changes to the style sheet.

18. Return to the **civilwar.htm** file in your text editor and link the file to the **cw_styles.css** style sheet.

19. Add style comments to document your work and then save your changes to the style sheet.

20. Open the **civilwar.htm** file in your Web browser. Verify that the style layout and design match that of the Web page shown in Figure 3-64. Verify that when you hover the mouse pointer over the links in the horizontal navigation list, the text changes color. Verify that when you hover the mouse pointer over the links in the vertical navigation list, the text color changes and the text is underlined.

21. Submit your completed project to your instructor, in either printed or electronic form, as requested.

Test your knowledge of CSS to design text and color styles for a children's choir Web site.

Case Problem 4

Data Files needed for this Case Problem: chen.png, choirtxt.htm, gcc_layout.css, gcc_stylestxt.css, gcclogo.png, modernizr-1.5.js, nobile.txt, nobile-webfont.eot, nobile-webfont.svg, nobile-webfont.ttf, nobile-webfont.woff

Gresham Children's Choir   Faye Dawson is the program director for Gresham Children's Choir in Mentor, Ohio. The choir offers a chance for talented youth to perform and to learn about music history. Faye is working on redesigning the choir's Web site and has asked for your help. She already has created a sample Web page for you to work on and has developed a page layout. She wants you to complete the design by creating styles for the text and colors in the page.

Complete the following:

1. Use your text editor to open the **choirtxt.htm** and **gcc_stylestxt.css** files from the tutorial.03\case4 folder. Add *your name* and *the date* in the comment section of each file. Save the files as **choir.htm** and **gcc_styles.css**, respectively.

2. Go to the **choir.htm** file in your text editor and link the file to the **gcc_layout.css** file. Take some time to study the content and structure of the document. Save your changes to the file and then view the current layout in your Web browser.

3. Go to the **gcc_styles.css** file and create a style sheet with style rules that:
   - modify the typeface, font weight, font size, kerning, and line height
   - employ a Web font
   - modify the appearance of list items
   - change the text and background color, including at least one example of a semi-transparent color
   - employ contextual selectors, pseudo-elements, and pseudo-classes
   - create rollover effects
   - employ progressive enhancement

   Document all of your work with informative style comments.

4. Add an embedded style sheet to the **choir.htm** file to apply a style rule of your own choosing to that page only.

5. Test your Web site in a variety of browsers to ensure your design works under different conditions.

6. Submit your completed files to your instructor, in either printed or electronic form, as requested.

ENDING DATA FILES

tutorial.03 → **tutorial**

tutorial
haunted.htm
home.htm
maze.htm

petting.htm
produce.htm
sa_styles.css

review
holiday.htm
hs_styles.css

case1
crypt.htm
c_styles.css

case2
bmtour.htm
mw_styles.css

case3
civilwar.htm
cw_styles.css

case4
choir.htm
gcc_styles.css