Unit 3:

Web Design

EXPLORING COMPUTER SCIENCE

©University of Oregon, 2016

Introduction

The Web Design unit builds on the concepts presented in the previous units by having students apply problem solving strategies to web design; thus, it also serves as a bridge to the Introduction to Programming unit as students move from user to creator. The unit also provides an opportunity to expand upon the issues of ethics and privacy related to the internet that were introduced in the first unit.

The basics of html are introduced as a method for describing features that students can use to design and develop web pages based on their own culture, interests and unique experiences. A variety of stylistic elements of css are included and offer a way of separating style from content—also providing an introduction to the computer science concept of abstraction.

The html and css lessons are scaffolded in order to provide all students an entry point, but it is likely that as students explore they will encounter features they wish to add for which they do not yet know the correct tags. Many students will be able to figure these out on their own and should be encouraged to do so.

Resist the temptation to provide lists of appropriate font and color palettes and/or best layout designs. As students experiment and share their work, challenge them to explain why they chose the features they did and encourage peers to comment. It is important to purposefully incorporate strategies that support the practices of collaboration and communication that were core to Units 1 and 2. Students should also apply the steps of the problem solving process as they design and implement their web pages.

Example projects are provided as a starting point, but students should be encouraged to work on projects that are authentic for them. As students design and implement, they should consider issues of accessibility for a diverse audience of users, including those with a variety of different disabilities.

Specific topics for each instructional day are listed in the overview chart on the next page.

Daily Overview Chart	
Instructional Day	**Topic**
1	Explore issues of social responsibility in web use as well as the relative merits of the influence of the web on society, personal lives, and education.
2	Create a storyboard for a website.
3-4	Introduce the use of basic html.
5	Introduce basic formatting in html.
6-7	Explore image editing for the web using Photoshop or an image editor of choice.
8-9	Introduce basic css.
10-11	Explore the concept of separating style from structure by keeping separate html and css files.
12-13	Web design project.
14	Add hyperlinks to other websites.
15-16	Introduce a variety of page layout styles.
17-19	Practice the use of various design elements.
20-21	Introduce several different enhancements for website design, including web user interface elements such as menus and navigation bars.
22-25	Final projects and gallery walk

Daily Lesson Plans

Instructional Day: 1

Topic Description: This lesson engages students in a discussion of the web as social experience. Issues of social responsibility in web use are explored as well as the relative merits of the influence of the web on society, personal lives, and education.

Objectives:

The student will be able to:

- Explain basic security issues on the internet
- Identify web applications that influence society and education
- Identify appropriate vs. inappropriate use of social websites

Outline of the Lesson:

- Discussion of online experiences (10 minutes)
- Discussion of parts 1-3 of *Growing Up Online* from the PBS series *Frontline* (40 minutes)
- Journal entry reflecting on *Growing Up Online* (5 minutes)

Student Activities:

- Participate in a discussion about online experiences with social networking sites, blogs, email, online chatting and the kind of impact it has had on their lives.
- View and discuss *Growing Up Online.*
- Complete journal entry reflecting on *Growing Up Online.*

Teaching/Learning Strategies:

- Guide a discussion regarding use of social networking applications. (Note: This discussion may be a review of discussions from Unit 1.) Ask questions such as:
  - Which social networking applications do you use?
  - How often? How many of your friends use them?
  - How important are these web applications to your lives? How have they changed your lives?
    - Living their lives essentially online
    - A revolution in classrooms and in social life
    - Self expression, trying on new Identities
- Display parts 1-3 of *Growing Up Online* from the PBS series *Frontline.*
- Journal entry reflecting on *Growing Up Online*
  - Have students create a journal entry reflecting on the video. Did any of their thoughts change after viewing the video?

Resources:

- http://www.pbs.org/wgbh/pages/frontline/kidsonline/

Instructional Day: 2

Topic Description: In this lesson students will begin the design for a website, including the creation of a storyboard.

Objectives:

The student will be able to:

- Create a storyboard for a web page
  .

Outline of the Lesson:

- Review journal entry from the previous day (5 minutes)
- Brainstorm ideas for website (5 minutes)
- Create a storyboard for a web page (30 minutes)
- Gallery walk (15 minutes)

Student Activities:

- Participate in journal discussion.
- Brainstorm ideas for a website.
- Create a storyboard for a web page.
- Participate in gallery walk.

Teaching/Learning Strategies:

- Review journal entry
  - Several students share their reflections on *Growing up Online*.
- Brainstorm ideas for a website
  - Individual students make a list of ideas for a website of interest to them.
  - Share with an elbow partner and choose one of the ideas—this idea will be used for practice as they learn basic html tags. Students should save their lists for use on later projects.
- Create a storyboard for a web page
  - Distribute large poster paper, markers and post-it notes.
  - Explain to students that a storyboard is a visual plan for a website. It usually consists of a series of pages that include a rough sketch outlining the content, navigation, and design elements of the website.
  - Have student pairs create a storyboard for the homepage of the website idea chosen.

- Gallery walk

  - Post each storyboard on the classroom walls.

---

o   Provide an order in which students are to circulate to each poster. Each student pair should be responsible for visiting a subset of the total number of posters.

o   Students should add comments, questions, or other feedback (via post-it notes) as they visit each poster.

o   Note: The gallery walk can extend into the next day, if necessary.

Resources:

- No additional resources needed

Instructional Days: 3-4

Topic Description: An introduction to the use of basic html

Objectives:

The student will be able to:

- Create a web page based on a storyboard
- Navigate an html editor
- Create an html page with a title and a body
- Create an html page with paragraph tags, headings, line breaks, and horizontal lines

Outline of the Lesson:

- Revise a storyboard (20 minutes)
- Demo of html editor and saving a file (15 minutes)
- Html page with a title and body (20 minutes)
- Html page with paragraphs and headings (20 minutes)
- Html page with line breaks and horizontal lines (35 minutes)

Student Activities:

- Groups revise a storyboard for a webpage.
- Follow along during the demo of the html editor.
- Create an html page with a title and body.
- Create an html page with paragraphs and headings.
- Create an html page with line breaks and horizontal lines.

Teaching/Learning Strategies:

- Revise a storyboard for a webpage
    - Finish gallery walk, if necessary.
    - Each student pair responds to the feedback provided and makes revisions to the storyboard accordingly.
- Demo of html editor
    - Display the html editor that you have chosen for the class. Point out the following html tags.

Tag	Description	End Tag
<html>	Defines an HTML document	</html>
<head>	Defines information about the document	</head>
<title>	Defines the title of the document	</title>
<body>	Defines the main part of the document	</body>

- o Enter a title and a one-sentence body. Demonstrate how to save the document as an html file and how to view the output page in a browser. Point out that the title appears in the bar at the top of the window. Also point out that the end tag is a necessary part of the syntax in order to tell the computer when to stop doing a particular thing.
- Html page with a title and a body
  - o Students will use pair programming for many of the lessons in this unit. In pair programming one person is the "driver" and does the clicking and typing. The other person is the "navigator" and describes to the driver what to do at each step. Students should trade roles every 5-10 minutes. Keep track of the time and announce that students should switch at even frequencies. Make sure students trade and that both students are contributing equally.
  - o Have students create a skeleton for their website homepage with the four tags listed above, including an appropriate title and a short paragraph of text.
  - o Save the file and view it in a browser.
  - o Have students add a second paragraph to the html file for their home page and note what happens.
  - o Then have them add two short lists related to their topic and note what happens.
  - o Guide students to notice that everything runs together no matter how they type it.
- Html page with paragraphs and headings
  - o Point out the following html tags.

Tag	Description	End Tag
<p>	Defines a paragraph	</p>
<h1> to <h6>	Defines headings at levels 1-6	to

  - o Have students try inserting these new tags into their home page and note what happens.
  - o Remind students that they need the end tag.
  - o This is a good place to point out that html is one language that can be used to give the computer instructions as discussed in Unit 1 and that the computer will produce exactly the output that the user indicates with the syntax provided. Html is not a programming language; it is a markup language.
- Html page with line breaks and horizontal lines
  - o Explain the following html tags.

Tag	Description	End Tag
 	Defines a single line break	
	Defines a horizontal line	

  - o Have students try inserting these new tags into their web pages and note what happens.

- o Give students time to experiment and determine what combination of tags will allow them to put their lists in a column, with each list having its own heading.
- o Point out that trying different tags and checking the output is an example of testing and verification. If the output is not what is intended, then they need to debug the code they wrote.
- o Note that you can retrieve an html reference from http://www.w3schools.com

Resources:

html editors

- http://www.tacosw.com (mac only)
- http://www.barebones.com/products/textwrangler (mac only)
- http://smultron.sourceforge.net/ (mac only)
- http://www.alleycode.com/download.htm(windows only)

html tutorial

- http://www.w3schools.com/html

Instructional Day: 5

Topic Description: An introduction to basic formatting in html

Objectives:

The student will be able to:

- Create an html page that includes emphasized text
  .

Outline of the Lesson:

- Review of tags learned to date (5 minutes)
- Html pages that include emphasized text (40 minutes)
- Journal Entry (10 minutes)

Student Activities:

- Participate in review of tags.
- Create an html page that includes emphasized text.
- Complete journal entry.

Teaching/Learning Strategies:

- Review of tags
  - o Have students open their files; then lead a quick review of the tags.
- Html pages that include emphasized text
  - o Have student pairs mark their storyboards with areas where they want emphasized text.
  - o Explain the following html tags.

Tag	Description	End Tag
	Defines where you want text to be strongly emphasized (appears bold)	
	Defines where you want text to be emphasized (appears in italics)	

   Note: Some versions of html use <b> and <i> for bold and italics, but this is not consistent.
  - o Have students try inserting these new tags into their home pages and note what happens.
  - o Give students time to experiment.
- Journal Entry: What things would like to be able to do with web pages that you have not done already?
  - o Ask some students to share their responses.

Resources:

http://www.w3schools.com/html

Instructional Days: 6-7

Topic Description: Explore image editing for the web using Photoshop or an image editor of choice.

Objectives:

The student will be able to:

- Identify the standard image resolution for the web (72 dpi)
- Resize and crop images for the web
- Identify and differentiate between the various image formats used in web sites: jpg, gif, png
- Create an html page that includes images

Outline of the Lesson:

- Discussion of various web image formats (5 minutes)
- Resizing and cropping images (15 minutes)
- Selecting and cropping a images (35 minutes)
- Html pages that include images (55 minutes)

Student Activities:

- Participate in discussion.
- Select and crop a few images.
- Create an html page that includes images.

Teaching/Learning Strategies:

- Discussion of various web image formats
    - Explain that image properties are relevant to web use.
    - It is important to check the size when preparing an image for use on the web. Resolution can be set under image size.
    - Remind students of the website evaluation they did in Unit 1 and features that made a particular site user-friendly and accessible to diverse users.
- Selecting and cropping an image
    - Demonstrate how to crop and resize images in Photoshop or image editor of choice. Part of this will be review from Unit 1.
    - Have students choose a few images that they will add to their home page and crop them.
    - Explain that students should save their images for use in this project and later projects.
- Html pages that include images
    - Explain the following html tag.

Tag	Description	End Tag
<img	Defines an image	/>

- o Point out that the correct syntax for defining an image is
- o xxxx is the name of the image file. The image should be in the same folder as the html file. The alt is added to describe the image in the event that it cannot be viewed for some reason—slow connection, error in the src definition, or when being viewed through a screen reader.
- o Have student pairs add the location of images to their storyboard and then insert their images into their home page.
- o They can resize the photo on the screen with:
- o They can add a title by:
- o Give students time to experiment with placement, sizes, headings, and additional images.

Resources:

- https://www.photoshop.com/express

Instructional Days: 8-9

Topic Description: An introduction to the use of basic css.

Objectives:

The student will be able to:

- Create inline styles with css
- Add inline styles to a web page
- Create an internal style sheet with css
- Create a web page that uses an internal style sheet

Outline of the Lesson:

- Overview of css (10 minutes)
- Sample inline styles (10 minutes)
- A web page that uses inline styles (10 minutes)
- Sample internal style sheet (10 minutes)
- Review and revise home page storyboard (15 minutes)
- Create an internal style sheet for home page (40 minutes)
- Gallery walk (15 minutes)

Student Activities:

- Examine sample web content.
- Add inline styles to home page.
- Examine sample web content.
- Pairs review and revise home page storyboard.
- Pairs create an internal style sheet for home page.
- Participate in gallery walk.

Teaching/Learning Strategies:

- Overview of css
    - CSS stands for Cascading Style Sheets.
    - CSS provides the formatting and style for a web page, while html provides the content.
    - There are three methods for inserting styles.
        - Inline styles
        - Internal style sheet
        - External style sheet
    - The basic format for a style is:

Selector	Declaration	Declaration

h1	{color:blue;	Font_size:12px;}

- o The selector is the element you want to style; each declaration consists of a property and a value; the property is the attribute you want to change and each property has a value.
  - o To make it more readable you can put each declaration on a separate line.
  - o Demonstrate creating a header with the inline style listed above.
  - o Note that you can retrieve a css reference from http://www.w3schools.com/css/.
  - o Display http://www.w3schools.com/tags/ref_colornames.asp and http://www.w3schools.com/tags/ref_colorpicker.asp as sources for choosing colors.
  - o Have students suggest a few different declarations and demonstrate the results.
- Create a web page that uses inline styles.
  - o Have student pairs add a few styles to their home page.
- Sample internal style sheet.
  - o Point out that inline styles should be used sparingly because they defeat the purpose of separating the style from the content.
  - o Display a few examples of web pages before and after the styling is added.
  - o Point out what each piece of the styling does to the original page. Point out the format and that the internal style sheet is included in the <head>. Also note that the style applies to the entire page unless a specific inline style is added.
  - o Talk about the fact that this is a way to do decomposition in their design process because they can choose the content and provide the style in two separate stages. They can also then test the various style elements one at a time to verify correctness. You may want to note that this is similar to the way you can think about writing the algorithm for making a peanut butter and jelly sandwich—write the instructions to work for any "bread", any kind of peanut butter, and any kind of jelly; then the specific kinds of bread, peanut butter, and jelly can be changed according to particular taste. You could even extend this further to make it any kind of sandwich—bread, filling 1, filling 2, etc. (Note: This is an example of abstraction.)
- Review and revise home page storyboard
  - o Student pairs add various style elements to their storyboard. For color, they should use markers or notes.
  - o This is also an opportunity to make adjustments to their storyboard to ensure that they have several paragraphs with headings, at least one picture, and text emphasis of various types.
- Adding style to the home page
  - o Student pairs complete their home page. The html page will contain several paragraphs related to the topic. The css stylesheet will have classes corresponding to the paragraphs. The page will also include:
    - ▪ At least one picture
    - ▪ A variety of emphasized text.
    - ▪ The background and text colors
- Gallery walk.
  - o Provide an order in which the gallery walk will proceed.

- o   Students provide comments/questions at each computer they visit.
- o   Students will use the feedback they receive to revise their homepage.
- o   Note: the gallery walk can extend into the next day, if necessary.

Resources:

- http://www.w3schools.com/css
- http://www.w3schools.com/tags/ref_colornames.asp
- http://www.w3schools.com/tags/ref_colorpicker.asp

Instructional Days: 10-11
Topic Description: Explore the concept of separating style from structure by keeping separate html and css files.

Objectives:

The student will be able to

- Create an html page that links to a separate css file
- Use html tags and css styling elements to separate style from structure

Outline of the Lesson:

- Complete gallery walk (10 minutes)
- Journal entry (5 minutes)
- Review of html/css concepts (5 minutes)
- Creation of an external style sheet (10 minutes)
- Add an external style sheet to home page (65 minutes)
- Share projects (15 minutes)

Student Activities:

- Participate in gallery walk.
- Complete journal entry.
- Review html/css concepts.
- Participate in discussion of external style sheets.
- Pairs add an external style sheet to their home page.
- Share projects.

Teaching/Learning Strategies:

- Complete gallery walk, if necessary
    - o Students should save the feedback notes for use later in the lesson.
- Journal Entry: Describe in your own words the purpose of css.
    - o Share with elbow partner
- Review of html/css concepts
    - o Ask students to volunteer their response to the journal entry. Guide a discussion of the highlights of the previous lesson.
- Creating an external style sheet
    - o Display a few examples of webpages that use external style sheets.
    - o Using the text editor, demonstrate how to create an external file for the styles. Emphasize that whatever the name of the style sheet, it needs to have a .css extension. Save the file in the web folder.
    - o Note that this allows designers to further separate the style from the content. Such separation would be particularly useful in maintaining a large website that has a standard look and feel.

That standard look and feel can be added to a page by just including the external css file. By utilizing reusable code, there is consistency and it means that the designer does not need to retype the entire content of the style every time a new page is added. This is an example of abstraction.

- o Demonstrate how to add the appropriate link to the html file.
- Add an external css file to home page
  - o Adjust storyboard to incorporate feedback from peers.
  - o Students revise their projects to incorporate peer feedback and an external css file.

- Share student work.
  - o Guide students in sharing their work either by a gallery walk, volunteers, etc.

Resources:

- www.w3schools.com/css

Instructional Days: 12-13

Topic Description: Web design project.

Objectives:

The student will be able to:

- Create a storyboard for a multi-page website
- Create an html page that links to a separate css file
- Use html tags and css styling elements to separate style from structure

Outline of the Lesson:

- Storyboard for a multi-page website (45 minutes)
- html/css project (65 minutes)

Student Activities:

- Create a storyboard for a multi-page web site.
- Create a web page that includes layout styles.

Teaching/Learning Strategies:

- Create a storyboard for a multi-page website.
    - Students should choose one of the ideas from their brainstorm at the beginning of the unit. Note that this idea will be the basis for their website that they will add to over the next several days.
    - As they create the storyboard (a different sheet of paper for each page), they should make note of features they would like to add that they have not learned about yet.
    - Remind students that their design should consider usability by a diverse set of users.
    - Share with elbow partner and obtain feedback to incorporate.
- Create a first draft of an html file and an external css file for the home page of their website.
    - The homepage should make use of all of the html tags and css style elements learned to date.

Resources:

- http://www.w3schools.com/html/

Exploring Computer Science—Unit 3: Web Design 121

Instructional Day: 14

Topic Description: This lesson explores the use of links to other websites.

Objectives:

The student will be able to:

- Create an html page that includes hyperlinks

Outline of the Lesson:

- Explanation of how to add hyperlinks (15 minutes)
- Addition of hyperlinks to web pages (40 minutes)

Student Activities:

- Participate in discussion of hyperlinks.
- Add hyperlinks to web page.

Teaching/Learning Strategies:

- Html pages that include hyperlinks
    - Explain the following html tag.

Tag	Description	End Tag
<a href = "url"	Defines what is to be displayed.	< /a>

   - Point out that the correct syntax for defining a hyperlink is Link text
   - The start tag contains information about the link address.
   - What is to be displayed can be text, an image, etc.
   - Give students time to experiment with adding hyperlinks to their website, including placement and sizes.
   - In addition to adding hyperlinks, they can begin to fine-tune what they drafted on the previous day.

Resources:

- No additional resources needed

Instructional Days: 15-16

Topic Description: In this lesson a variety of page layout styles are introduced.

Objectives:

The student will be able to:

- Use table, row, and column tagging in an html page
- Add css styling to an html table
- Use ordered and unordered list tagging in an html page
- Add css styling to an html list
- Use grid elements in css div placement
- Add a menu to an html page
- Add layout styles to a web page

Outline of the Lesson:

- Explanation of how to create an html table (15 minutes)
- Examples of data that lends itself to being presented in a table (5 minutes)
- Explanation of how to create html ordered and unordered lists and how to add styling to list elements (15 minutes)
- Examples of data that lends itself to being presented in a list (5 minutes)
- Preliminary css positioning and opacity exercise (15 minutes)
- Explanation of how to create a menu (15 minutes)
- Add layout styles to web page (40 minutes)

Student Activities:

- Participate in the discussion of creating an html table.
- View examples of data that lends itself to being presented in a table.
- Participate in the discussion of creating ordered and unordered lists.
- View examples of data that lends itself to being presented in a list.
- Complete css positioning exercise.
- Participate in the discussion of menu creation.
- Add layout styles to a web page.

Teaching/Learning Strategies:

- Use the www.w3schools.com tutorial to demonstrate how to create a table, how to add rows and columns and how to add css styling to table, row, and column elements. Have students view the example code and predict the results prior to viewing.
- Demonstrate examples of data that lends itself to being presented in a table

---

- Use the www.w3schools.com tutorial to demonstrate how to create ordered and unordered lists and how to add css styling to list elements. Have students view the example code and predict the results prior to viewing.
- Demonstrate examples of data that lends itself to being presented in a list.
  - Remind students of the data they worked with in units 1 and 2. Ask questions about how that might have been displayed on a web page. Point out that they may want to keep this in mind for the final project in Unit 5.
- Use the www.w3schools.com tutorial to demonstrate div positioning using css. Have students view the example code and predict the results prior to viewing.
- Use the www.w3schools.com tutorial to demonstrate how to create a menu. Have students view the example code and predict the results prior to viewing.
- Have students add at least one of the layout styles to their website.

Resources:

- http://www.w3schools.com/html/
- http://www.w3schools.com/css/

Instructional Days: 17-19

Topic Description: Practice the use of various design elements.

Objectives:

The student will be able to:

- Create web pages that incorporate design elements previously studied

Outline of the Lesson:

- Explanation of project (10 minutes)
- Design and creation of a website that links to at least 5 other websites (135 minutes)
- Gallery walk (20 minutes)

Student Activities:

- Design and create a 3 page website that links to at least 5 other websites and includes a variety of design elements.
- Participate in gallery walk.

Teaching/Learning Strategies:

- Design and create a website that links to at least 5 other websites and includes a variety of design elements.
    - o Students should update their storyboards as necessary to reflect the design.
    - o The three pages may either scroll or link to each other.
    - o The project should include a variety of images .
    - o The project should demonstrate attention to usability/accessiblity features.
- Gallery walk.

    - o Provide students with an order for the gallery walk.
    - o Students should provide feedback on post-it notes as they circulate through the gallery walk.

Resources:

- www.w3schools.com/html
- www.w3schools.com/css
- Multi-page Website Sample Rubric

Instructional Days: 20-21

Topic Description:

This lesson introduces a variety of enhancements for website development. Possible enhancements include: several web user interface elements such as menus and navigation bars.

Objectives:

The student will be able to:

- Create a multi-page web site that includes a variety of enhancements

Outline of the Lesson:

- Exploration of a variety of enhancement possibilities (45 minutes)
- Creation of a multi-page website (55 minutes)
- Share student work (10 minutes)

Student Activities:

- Review the sections of the tutorial website related to the enhancement possibilities.
- Create a multi-page website.
- Share completed work.

Teaching/Learning Strategies:

- Have students review the sections of the www.w3schools.com website dealing with menus and navigation bars.
- Creation of a multi-page website
    o   Have students choose at least one menu or navigation bar to include in their website.
    o   Incorporate feedback from peers.
    o   This is the final opportunity to complete the website.
    o   Note that this is also preparation for the final project.
- Share student work.

Resources:

- www.w3schools.com/html
- www.w3schools.com/css
- Multi-page Website Sample Rubric

Multi-page Website Sample Rubric:

Do you have?	Points Possible	Yes	No	Points Earned
Website Content				
A home page with an image and a brief description of your topic	5			
3 or more additional pages on your site	15			
Images that support your topic	10			
Cite the source(s) of you images	5			
Complete information for your topic	10			
Cite the source(s) of your information	5			
Website Design				
Have a background color or image.	5			
Incorporate one of the layout styles into your website	5			
Links to all the pages of your website on each page.	10			
Integrate navigation bars or menus into your website.	5			
Use one shared external .css file for your site.	10			
Integrate accessibility features	5			
Storyboard—with responses to feedback noted	10			
Total	100			

Instructional Days: 22-25

Topic Description: Students complete final projects.

Objectives:

The students will be able to:

- Incorporate all objectives of the unit into the final project

Outline of the Lesson:

- Explanation of final project (15 minutes)
- Final project (135 minutes)
- Gallery walk (15 minutes)

Student Activities:

- Complete final project.
- Participate in gallery walk.

Teaching/Learning Strategies:

- Final project
    - Explain final project choices.
    - Students create a storyboard for their final project.
    - Help students with projects as necessary.
- Gallery walk
    - Encourage students to ask each other questions as they view the websites.

Resources:

- Final Project
- Final Project Sample Rubric

Final Project

Your task is to create a website that includes

- Images and text with references to sources
- Pages with headers, navigation and content
- An external css file to define layout and styling

You may choose any of the following topics

- An ethical dilemma
- A career
- A worldwide or community problem
- A topic of your choice that has been approved

Ethical Dilemma Web Site

Your task is to analyze an ethical dilemma. Choose one of the four dilemmas listed below or get approval for a different one. You must consider the alternatives and give reasons for the why and the why not you should do what is described. Then you must choose what you would do and explain why. The website should include pages that

1. Describe the dilemma you have chosen.
2. Give 3 reasons why you should do what is described.
3. Give 3 reasons why you should NOT do what is described.
4. Describes what you will do and explains why.

Ethical Dilemmas:

1. People illegally download music over the internet. Although it's free, it is still illegal. What do you choose to do? Why?
2. Your parent loses his/her job. You could help out by selling illegal dvds on the streets. What should you do?
3. You have the ability to hack into the school computer system. You can change people's grades. Would you change your own? Why or why not? What if you could change the grade for a basketball player who has a scholarship to play for a big university?
4. Someone you know works at a store that sells iPods. He steals some and asks if you want to buy one for half the price the store sells it for? Should you buy it? Why or why not?

Career Website

Research a career and create a website that provides information about it.

The website should include pages that

- Provide a brief description of the career
- Explain the education required
- Describe tasks performed in the career, salaries and how computer science is used in the career.

Worldwide or Community Problem Website

Research a worldwide or community problem and create a website that provides information about it.

The website should include pages that

- Provide a brief description of the problem.
- Explain how the problem is affecting people.
- Describe possible solutions to the problem and what people reading the website can do to help solve it.

Final Project Sample Rubric:

Do you have?	Points Possible	Yes	No	Points Earned
Website Content				
A home page with an image and a brief description of your topic	5			
3 or more additional pages on your site	15			
Images that support your topic	10			
Cite the source(s) of you images	5			
Complete information for your topic	10			
Cite the source(s) of your information	5			
Website Design				
Have a background color or image.	5			
Incorporate one of the layout styles into your website	5			
Links to all the pages of your website on each page.	10			
Integrate navigation bars or menus into your website.	5			
Use one shared external .css file for your site.	10			
Integrate accessibility features	5			
Storyboard	10			
Total	100			