

COMP6550 – Semester 2 2020/2021

Project 1 – HTML and CSS – Due: Feb. 11, 2021 @2355.

Problem 1 (10 points)

Create a single HTML document that presents two different appearances, determined by the document's CSS stylesheet. Your HTML file should be called p1.html and the two stylesheets should be called p1a.css and p1b.css. If the HTML file links to p1a.css then it should appear like this ("Version A"), assuming you are running Chrome 86.0 on a Windows 10 machine:

Constituency	St. Andrew Eastern
Polling Div.	61
Polling Stn	61A
Location	Papine High School
Candidate1	11
Candidate2	68
Rejected	1
Total	80
Constituency	St. Andrew Eastern
Polling Div.	61
Polling Stn	61B
Location	Papine High School
Candidate1	25
Candidate2	53
Rejected	1
Total	79
Constituency	St. Andrew Eastern
Polling Div.	74
Polling Stn	74
Location	United Theological College
Candidate1	32
Candidate2	31
Rejected	1
Total	64
Constituency	St. Andrew Eastern
Polling Div.	76
Polling Stn	76
Location	United Theological College
Candidate1	130
Candidate2	33
Rejected	4
Total	167
Constituency	St. Andrew Eastern
Polling Div.	77
Polling Stn	77
Location	Students' Union
Candidate1	16
Candidate2	19
Rejected	2
Total	37

If the HTML file links to p1b.css then it should appear like this in Chrome 86.0 on Windows 10 ("Version B"):

Constituency	Polling Div.	Polling Stn	Location	Candidate1	Candidate2	Rejected	Total
St. Andrew Eastern	61	61A	Papine High School	11	68	1	80
St. Andrew Eastern	61	61B	Papine High School	25	53	1	79
St. Andrew Eastern	74	74	United Theological College	32	31	1	64
St. Andrew Eastern	76	76	United Theological College	130	33	4	167
St. Andrew Eastern	77	77	Students' Union	16	19	2	37
Total				214	204	9	427

Here are some additional details and requirements for this problem:

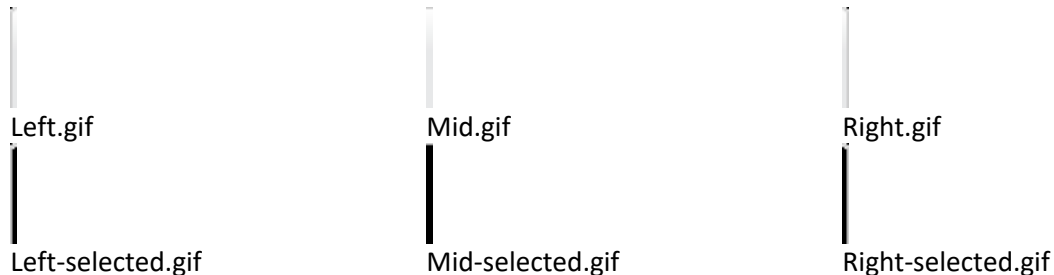
- The content should be described in a single HTML file, using a `<table>` element to display the main table.
- There may not be any formatting information in the HTML file other than class and id attributes.
- The appearance must be generated entirely with CSS style information; you may not use images or JavaScript for this problem.
- The only change that should be required to switch from Version A to Version B is to change the `<link>` element in the header to refer to a different CSS file.
- Your CSS files must appear in a directory called `styles/`.
- Try to duplicate the appearance in the images above exactly ("pixel perfect"). For example:
 - Some of the columns should be right-justified whereas others are left-justified.
 - The "Total" line appears only in Version B (hint: you may find the display attribute useful in producing this effect).
 - The title in the browser title bar should read "COMP 6550 Project 1, Problem 1".
 - Both versions use the Gill Sans font in a 13-pixel size.
 - The background colors for the body rows in Version A are #eeeff2 and #dfe1e7.
 - The lines between the rows in Version A are 2 pixels wide with a color of #d0d0ff.
 - The color for the frame around Version B is #687291.
 - The frame in Version B is 10 pixels wide; there are 20 pixels of empty space on either side of the frame.
 - The frame in version B has a border radius of 15 pixels at each corner.
 - The horizontal rule above the "Total" line in Version B is 2 pixels wide.
 - Match the paddings and spacings as closely as possible.
- Your HTML file must be a valid XHTML document that passes validation at <http://validator.w3.org>, and your CSS files must pass validation at <http://jigsaw.w3.org/css-validator/>

Problem 2 (10 points)

Create an HTML file `p2.html` and its corresponding CSS file `p2.css`, which will create a set of tabs that appear like this on Windows 10 with Chrome 71.0:



In your solution for this problem you must use images in conjunction with the `background-image` CSS attribute to create the appearance of the tabs. We have generated 6 images for you to use. For tabs that are not selected there are three images, one for the left edge of the tab, one for the middle, and one for the right edge. There are three different images to use for the selected tab.



Here are some additional details and requirements for this problem:

- Use the Tahoma font in a 13-pixel size.
- The text in the selected tab should be displayed in bold.
- When the mouse moves over a tab the text color should change to #cc6600. In addition, the mouse cursor should appear as a pointing hand (cursor type pointer) when the mouse moves over a tab. In the screen dump above the mouse is over the "Shippers" tab; unfortunately the screen dump does not display the mouse cursor.
- The text in each tab should be a link that will switch to a different page when clicked. The URLs for the links should be, from left to right, "inventories", "orders", "accounts", "shippers", and "suppliers". You do not have to implement the Web pages corresponding to these links. Thus, when you click on a tab you will get a "missing page" error; in a real application each of these pages would display the same set of tabs, but with a different tab selected.
- The color of the horizontal line separating the tabs from the rest of the page is #cccccc. The line should extend from the rightmost tab to the right edge of the window, except for a small margin at the right side; the line length should adjust as the window is resized.
- The tabs should automatically resize both horizontally and vertically. If you replace the text in a tab with longer or shorter text, the tab should automatically get wider or narrower. If you change the font size for the tab text, the tabs should automatically get taller or shorter. Note that the images are taller than you will need in most cases; you should only display as much of each image as needed for the actual font size. You do not need to handle fonts that are too tall for the images we have provided.
- There may not be any formatting information in the HTML file other than class and id attributes.
- You may not use JavaScript for this assignment; you can solve this problem entirely with HTML and CSS.
- As with Problem 1, try to create a (nearly?) pixel perfect imitation of the screen shot.

- Note: browsers sometimes behave badly if a `<td>` contains nothing; for example, they may not display a background or border in this case. You can use an empty `<div>` inside the `<td>` to get around this problem.
- Your HTML file must be a valid XHTML document that passes validation at <http://validator.w3.org>, and your CSS files must pass validation at <http://jigsaw.w3.org/css-validator/>
- An easy way to make sure your Web pages pass XHTML validation is to use the HTML Validator add-on for Firefox, which checks your pages automatically and displays error information. You can download this add-on at <https://addons.mozilla.org/en-US/firefox/addon/249/>.

Problem 3 (5 points)

Create a simple mashup page that displays both the BBC news (<https://www.bbc.com/news>) and BBC Pidgin (<https://www.bbc.com/pidgin>) home pages. Your solution should be in a file `p3.html`. Note: your solution for this problem does not need to validate.

Style points (5 points)

These points will be awarded if your XHTML is clean and readable, Problems 1 and 2 pass validation (both for XHTML and CSS), and your solutions for Problems 1 and 2 are close to pixel-perfect matches of the samples.

Hints

- It is OK (and encouraged) to specify `cellspacing="0"` in each `<table>` element. This eliminates spacing between cells that the browser provides by default and which is usually a nuisance. You have to specify this attribute on the `<table>` element because there are no CSS style attributes that correspond exactly to this feature (`border-spacing` and `border-collapse` come close, but they have unpleasant side effects and are not portable).
- You may find some of the following CSS style attributes useful for this project (check w3schools for details):
 - `width: 100%;`
 - `white-space: nowrap;`
 - `text-decoration: none;`
- The `margin` style attribute is ignored for `td` elements (a strange exception to the uniformity of CSS). If you need a margin around the contents of a table cell, place a `div` inside the `td` and specify margin for the `div`.
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Acknowledgment

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