

Intro to Computer Programming: week 12

This week's homework:

Synopsis:

- Use last week's assignment as a template to make an HTML page that flip flops the page's content with each click of a button.
- Read HTML pages on DOM at w3schools
- Read how to create elements in the DOM of your web pages

Details:

1. Last week's assignment created a framework of an HTML page with two DIV sections. This week we will add additional functions to our JS file first.js that adds content to each of the DIV sections. The logic of your code needs to do this:
 - a. On load fill the top DIV with HTML of your choice.
 - b. The logic will also add a button to the top DIV that when clicked will:
 - i. Clear the top DIV of all HTML
 - ii. Add HTML of your choice to the bottom DIV
 - iii. Add a new button to the bottom DIV that when clicked will:
 - Clear the bottom DIV of all HTML
 - Fill top DIV as in step a. above.
 - c. In this way each click of a button will fill one DIV section and clear the other.
2. Your logic can do this any way you want. Here is how I did it:
 - a. Created function **fill_top()** that gets called at the **onLoad** event which:
 - i. Created the HTML elements I wanted to add to the top section
 - Including the button to call function **fill_bottom()** (see below)
 - ii. Appended those elements to the top DIV element I got by its ID.
 - iii. Called a new function **clear_bottom()** that clears the HTML of the bottom DIV
 - b. Created function **fill_bottom()** that which:
 - i. Created HTML elements I wanted to add to bottom section
 - Including the button to call function **fill_top()**
 - ii. Appended those elements to the bottom DIV element I got by its ID.
 - iii. Called a new function **clear_top()** that clears the HTML of the top DIV

- c. List of functions I used:
 - i. fill_top()
 - ii. fill_bottom()
 - iii. clear_top()
 - iv. clear_bottom()
- 3. Read HTML pages on DOM at w3schools
 - a. Read: <http://www.w3schools.com/html/dom/default.asp>
- 4. Read below how to create elements in the DOM of your web
 - a. First review the w3schools page on the DOM function to create elements:
 - i. http://www.w3schools.com/dom/met_document_createelement.asp
 - b. At the basic level for our purposes an element is an HTML tag and everything inside of it up to and including its closing tag.
 - c. So if one wants to add an element you must know the syntax of the HTML tag you want to add. Let's use the example of the button tag we will need for this assignment.
 - d. First I look up the syntax of a button on w3schools by going to the HTML reference section: http://www.w3schools.com/tags/tag_button.asp:

HTML `<button>` Tag

Example

A button is marked up as follows:

```
<button type="button">Click Me!</button>
```

- e. And when the button is clicked it needs to call a JS function so from the same page I see the event attribute I need to use is onclick

Event Attributes			
The <code><button></code> tag supports the following event attributes:			
Attribute	Value	Description	DTD
onclick	<i>script</i>	Script to be run on a mouse click	STF

- f. So let's put this all together:

```
//create a new button element
var button = document.createElement('button');

//add label to button
button.innerHTML = 'Fill Bottom div';

//add onClick attribute
button.setAttribute( 'onClick', 'fill_bottom()' );

// now get DIV element from DOM by its ID
var top_div = document.getElementById('top');

//now append button to DIV element
top_div.appendChild( button );
```

- g. The same thing needs to be done to the HTML that you want to add to each DIV section. But it should be appended to the DIV element before the button element is appended so the button will be at the bottom.