# NM2207

Week 3

Session 03 Assignment

This week you will start with a simple web page with an elegant layout and exercise the skills you have developed during the first two weeks of class.

Overview of what we’ll do today:

* CSS for “layout” design, using the DOM from JavaScript!
* Practice interacting with the DOM through JavaScript code
* Variable assignment

Before attempting the challenges, you are expected to have watched and coded along with the Lecture videos and completed the Challenges due on Thursday in class.

The assignments are due to be completed at the end of MONDAY each week and will be awarded points based on completion. Partially completed assignments will be given partial credit. If your submission is likely to be late, please inform your tutor, and you may lose points. Submitting the assignment one day late loses you half the points.

**Preparatory Remarks**:

* You’ll see some code you haven’t seen before (get used to that!), but should be able to figure out what you need to from its structure and by searching in order to do the homework. We’ll be using this “grid layout” template in several other assignments, too, because of its general usefulness.

**Part 1**

1. Instead of the grey background for the body of the page, use an image from the Internet.
2. Instead of the background color for the “aside” element, use an image from the internet, and make sure the size of the whole background-image image fits into the “aside” space at least once (search!).
3. Set the borders on all the elements of the page to be more rounded.
4. On the footer only, put a orange-yellow-greein color gradient from left to right. (You can use a selector more than once in a CSS file if it is convenient)
5. Center the content words “nav” and “aside” aside in their respective elements in CSS.
6. Create a bunch of paragraphs in the article section of the html page, long enough so that they scroll off the bottom of the element. Give paragraphs in the article element a class, and in CSS, set their font size to 10. Make the paragraphs longer if they no longer scroll off the end of the article content container.
7. Plunder the DOM Communication example from the this week’s video lessons to do the following:
   1. In your JavaScript code, use the DOM object method getElementById() to get the article element and give your whole article a font family (using JavaScript).
   2. In your JavaScript code, center the word Header in its element after retrieving it using getElementById in JavaScript. (Remember the different spelling conventions in CSS and JavaScript for the same style element!)
8. Put h2 headers before the first paragraph and the last paragraph in your article. Give them each a unique id (e.g. Top and Bottom). Now in the “nav” section of the html document, create an unordered list with two elements, each one linking to a specific part of the page (the Top paragraph and the Bottom paragraph). [Hint: this is similar to other hyperlinks, but with links to other elements within the same page]

# Bonus Round 1

Style the article element text using the style font property!

# Bonus Round 2

You don’t **have** to create all your html elements in the HTML document. You can create them **dynamically** with JavaScript:

var myElmt = document.createElement( arg ) // arg is the tag for **any**

html element

then you can use appendChild() to add it as a child to any other element. Can you dynamically add a paragraph to your article?

Create it, add innHTML to it (the text of your paragraph) and then append it to your article!

**Part 2**

**Videos**

1. Please watch the video provided in the LumiNUS tab which provides a recap and explains Modularity.
2. Watch and code along Jen Golbeck’s videos 1-6,12,13,14,15 of this playlist: <https://www.youtube.com/embed/videoseries?list=PLk_jmmkw5S2C9-NWUvSdy2QUVPeBzxMi3>

These will prepare you for next week’s videos and challenges with Colors and Math.

**Variable Assignment: Background (**[Reference](http://web.engr.oregonstate.edu/~rookert/cs162/ecampus-video/CS161/template/chapter_2/variables.html))

An assignment statement consists of a variable name, the assignment operator =, and a value to assign to the variable. You must declare a variable before you can assign a value to it; make sure your variable declaration statement precedes any assignment statement.

Assigning a literal to a variable

Literals are constant values such as numbers (5, 26.4) and strings such as “hello”.

To assign a literal to a variable, place the literal on the right side of the = operator.

Assigning the value of one variable to another variable

In addition to literal assignment, variables can be assigned the value of another variable.

**Use getElementById() to set OR replace the text**

* 1. Add a paragraph of text to the article element.
  2. Give the 'article' element an id in the html file, so that you can access it (from css or JavaScript).
  3. Now in your JavaScript file main.js, use the DOM (through the built-in object 'document' , and it's methodgetElementById() ) to get the article element, and store it in a variable, call it whatever you like. E.g. articleElement.

**Providing output using Javascript**

1. Print the value of your new variable to the console.log
2. Set the innerHTML property of the articleElement to some text - whatever - just give yourself a welcome to your web page!
   1. Do the assignment by using a literal
   2. Do the assignment by using another variable

Hint:

b = “new text”; //this is assignment **using a literal**

b = 6; //this is assignment **using a literal**

b = a ; //this is assignment **using a variable**

1. Continue using the innerHTML property. How would you append instead of replacing the text? Hint:

var a = “new text”; // a variable is initialized

// in your case, b might instead be the innerHTML property of your article element,

b = “new text”; //this is replacing text in the inner html of the article element, and this is done **using a literal**

b = a ; //this is replacing text in the inner html of the article element, and this is done **using a variable**

b = b + a // this is appending text in the inner html of the article element

1. Change any two of the global style attributes of the article element

<https://www.w3schools.com/tags/att_global_style.asp>

a. Change one property using a literal

b. Change one property using a variable