Unit 5 Javascript

Notebook:	Athabasca		
Created:	6/30/2018 3:52 PM	**Updated:**	6/30/2018 4:38 PM
Author:	Dwayne Cyr		

Build Notes

I decided to start work on the Input Validation script for this unit. During the design phase I think I fell into the beginners trap of taking on too much. It's shocking how difficult and time consuming debugging can be and it feels so good when you get something working after spending a few days staring blankly at it trying to figure out why it doesn't work. In the process I changed the layout of the currentsessions page and I think it looks a lot better now. I implemented all the input validation in a single script with seven functions. This whole thing is similar to the original design but as I've figured out things I simplified a lot of the information flow.

Functions:
setCookie (cookiekey, cookieValue)
validateInput (inputtype, input)
validateText (text)
validatePhone (phone)
validateEmail (email)
myFocusFunction ()

This last one does a lot of the heavy lifting. The way the script works now is it creates event listeners for all of the input fields and whenever the focus changes, it runs the validation script on all of the fields. If the fields pass validation, they turn green and get written to a cookie. If they don't pass, they turn red.

After going through a few tutorials for Javascript I think the second script idea I had would be better implemented using jquery.

Old Site:

Current Session

User Information

User Information					
Email	**First Name**	**Last Name**	**Postal Code**	**Phone Number**	**Private IP Addr**
Value	Value	Value	Value	Value	192.168.1.84

Server Information

Server Information	
Attribute	Value
Attribute	Value
Attribute	Value

Opensource Intelligence

Opensource Intelligence	
Attribute	Value
Attribute	Value
Attribute	Value

Session Information

Session Information	
Attribute	Value
Attribute	Value
Attribute	Value

New Site:

Current Session

User Information

Email	First Name	Last Name	Postal Code	Phone Number	Private IP Addr
					192.168.1.84

Server Information		Opensource Intelligence		Session Information	
Server Information		Opensource Intelligence		Session Information	
Attribute	Value	Attribute	Value	Attribute	Value
Attribute	Value	Attribute	Value	Attribute	Value
Attribute	Value	Attribute	Value	Attribute	Value

What I would do differently:

I learned a lot through trial and error about what sorts of things can be passed through a function and what things cannot but before I would start something like this again I would create a comprehensive function that when provided with an object describes it's type, composition, children, elements etc. so I can just run this against something to sanity check that the method of function is getting what I expect. Towards the end I found a way to programatically pull all of the IDs from a doc and I would definitely use more of that. I also learned the hard way that event driven scripts must go on the bottom of the page. I thought it had to be near the part of the page it was altering and that lead to some maddening issues. I also learned an important lesson about naming objects. Descriptive names are only useful if they are very unique. If you use the same name for an ID in the html page as the name of your javascript, it's going to behave very oddly. I won't do that again.

Using Visual Studio Code (it's free!) along with Firefox's debugger was a huge step up. I started working with plnkr.co and it's also really good, it just doesn't handle cookies well.

During this, I also learned a valuable lesson in structure. Next time I will make sure all case statements start with a break, probably even before I put any steps in the group. That is very confusing, especially when troubleshooting formatting.

Finally, I found a site that automatically creates APA style citations for websites. I highly recommend it for this section.

Resources:
Javascript IDE online (not good for cookies but good for everything else):
plnkr.co

Visual Studio Code:
https://code.visualstudio.com/
Addons:
Beautify
Auto Close Tag
Auto Rename Tag
Babel ES6/ES7

References:
Email Regex
Email Address Regular Expression That 99.99% Works. (n.d.). Retrieved June 28, 2018, from http://emailregex.com/

Using Regex in Javascript:
JavaScript Regular Expressions. (n.d.). Retrieved June 28, 2018, from https://www.w3schools.com/js/js_regexp.asp

Phone Regex:
Roelofs. (2017, October 25). Validate phone number with JavaScript. Retrieved June 28, 2018, from
https://stackoverflow.com/questions/4338267/validate-phone-number-with-javascript

Cookie Expiration Date:
PiTheNumber. (2014, March 18). Set a cookie to never expire. Retrieved June 30, 2018, from
https://stackoverflow.com/questions/3290424/set-a-cookie-to-never-expire

Cookie info:
//Shaedrich. et al (2018, June 21). Document.cookie. Retrieved June 30, 2018, from https://developer.mozilla.org/en-US/docs/Web/API/Document/cookie

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