

# JavaScript Practice 1

1. Make sure you review and understand the material covered in the powerpoints in class.
2. Try to implement some of the code in the powerpoints:
  - a. Hints: DON'T COPY FROM THE POWERPOINTS
    - i. The browser doesn't like all of MS Office's characters, most notably the “, the ‘, the -, the ,, and just about any other special character you might use.
  - b. If nothing is working, there's probably a typo you'll have to find.
    - i. Look for capital letters where there should be a small one, and vice versa
    - ii. Look for missing “ ” (if you open it, you must close it)
    - iii. Same with { and }
    - iv. Same with ( and ) – for every one of the first, you must have one of the second.
  - c. Finally, make sure your html is valid (again, if you opened a tag, you should close it)
3. Now that you're comfortable with getting JavaScript to work, let's try some problems:

## Problems (20 pts, due next Friday):

**Note: If you choose, you can work with partners for these problems, but switch partners from your web project partner. This will expand on the number of people of whom you can ask questions. Make sure you put BOTH names on the problems. Make a folder, and place all of the web pages for the problems in the folder. Upload the folder with the web pages to the server, and submit the URLs on sakai. Only one partner should submit, but if one partner fails to submit, both partners are responsible.**

1. (1 pts) Write a web page with a javascript to write, “Welcome to my very special page” with a line break between **my** and **very**.
2. (2 pts) Write a web page with a javascript that writes a paragraph with an image inside of it (so that an image shows up on your page).
3. (3 pts) Write a web page that uses the prompt to get the user to input their first name and then their year of birth. Calculate how old they are and write it to the web page (assume everyone was born on the first day of January of this year)
4. (3 pts) Write a web page that uses a prompt to ask the user what color they'd like the background of their paragraphs to be. It should then write a paragraph with the background set to the appropriate color. (Where this could head – currently I'm designing an interface for students with low vision. While students who are completely blind don't care about font colors and background colors, some students with low vision prefer a black background with white, or even slightly gray text (especially if their visual difficulties are related to visual seizure-type disorders), whereas other low vision students prefer as much contrast as possible, but a white background with black text. This is just one relatively straightforward example of what this could be used for).
5. (3 pts) Simple psychoanalysis program: Write a web page that uses a prompt to ask the user, “How are you feeling?” Then, think of some potential answers. Using an if branching condition to get the computer to write out an appropriate response (e.g., if the answer was, “I'm feeling down”, you might want something like,

```

if (answer == "I'm feeling down")
{ ...
}

```

Extra: Have the program continue.

```

If (answer == "I'm feeling down")
{
    var ans2 = prompt("Are you feeling down because of your job?")
    If (ans2 == "yes")
    {
        ...
    }
}

```

And continue the conversation. This could go on forever...

6. (4 pts) Simple Rock/Paper/Scissors. Use the prompt box to ask the user, "Pick 0 for Rock, 1 for Paper, or 2 for Scissors (you'll have to use ParseInt on this one). Then generate a random number between 0 and 3 (remember, when we generate a random number it goes up to but not including 3). Okay, here's the part I always get confused. Rock (0) beats Scissors (2), paper(1) beats rock (0), and scissors(2) beats paper(1). So you must write out who won by checking your answer against the computer's randomly generated answer, e.g., (&& means *and*)

```

if ((myanswer == 0) && (randnum == 1) )
{
    document.write("<p>Sorry, the computer won.</p>")
}
...

```

7. (4 pts) Simple sales app: Your web site sells bags of coffee for the Save the Aardvarks Foundation. You sell regular coffee at \$9/bag, you sell decaffeinated coffee at \$8/bag, and you sell mocha coffee for \$11/bag. If the user buys more than \$100 worth, they get a \$15 discount.

Use the prompt to ask the user how many bags of regular coffee s/he wants. Then use the prompt to ask about decaf, and then about mocha. Using the input, calculate the total amount the user will pay.

If the total is over \$100, subtract \$15 from their total. Write out their receipt to the web page, by writing out how many bags of regular they purchased and how much that works out to, then how many bags of decaf and how much that works out to, and then how many bags of mocha they purchased and how much that works out to. Finally write out how much the total will be.

So, for example, after running the script, the web page might look like this:

```

You purchased 3 bags of regular, totaling 27 dollars.
You purchased 2 bags of decaf, totaling 16 dollars.
You purchased 6 bags of mocha, totaling 66 dollars.
Your total purchase cost is 93 dollars.

```

Extra (4 pts) Now, using the prompt ask the user if s/he wants to become a member of the Save the Aardvark Foundation and save 20% on their purchase (if you want to be fancy, you can tell them exactly how much they'll save). If the user says "yes", add another \$50 to the total for membership. Now take 20% off of that. Print out the receipt, as above, only including the membership.