

JavaScript Lab 2

(50 pts) Due Thursday night at midnight

Hints for problems encountered:

- i. If nothing is working, there's probably a typo you'll have to find.
 - a. Look for capital letters where there should be a small one, and vice versa
 - b. Look for missing " " (if you open it, you must close it). You should always have an even number of quotes.
 - i. Make sure, if you copied quotes from MS Word, you retype them
 - c. Same with { and } (again, for every opening {, you must have a closing }
 - d. Same with (and) – for every one of the first, you must have one of the second.
- ii. Finally, make sure your html is valid (again, if you opened a tag, you should close it)

Arrays:

1. (5pts) Create an array of numbers between 0 and 1 (these will be used for setting opacity). Generate a random number between 0 and the length of the array. Make sure you've got a variable to hold the random number
Now find an image of a ghost. Use document.write to display the image of the ghost, with an inline style that uses the random number variable to set the opacity to the value in the array at the random number.
2. (8 pts) Create an array of images of things.
Create a second array of the image's name in another language (you may wish to choose a language that uses the simple set of 256 basic ascii characters that are on your keyboard). Make sure both arrays are exactly the same length.
Now generate a random number between 0 and the length of the array. Make sure you have a variable to hold the random number.
Use document.write to display the image in the array at that random number.
Use document.write to write a paragraph containing the sound at that random number.

GetElementById:

3. (9 pts) Create a paragraphs in html with its own id.

Now write a javascript. In the javascript, prompt the user to "guess a number between 1 and 10". Make sure you have a variable that holds what the user types in.

Next generate a random number between 1 and 10. Again, make sure you have a variable that holds the random number.

Check if the number the user typed in is equal to the random number. If they are equal, use document.getElementById and innerHTML to change the paragraph to say, "You guessed correctly! You guessed " and print the number guessed.

Otherwise, change the paragraph to say, "Sorry, you were wrong. You guessed x and the computer guessed y" (replacing x with what you guessed and y with what the computerguessed.

4. (13pts) Write a web page (or modify your existing web page, above) so that it contains an unordered list of 3 items (you choose the topic – maybe a playlist, or books, or anything you want).
 - a. In your script, create an array of at least 6 items on a topic of your choice – it can be the same topic as the original list in the page, or on a new topic
 - b. Use the confirm box to ask, “Generate a new list?”
 - c. If the user clicks “ok”, generate 3 random numbers between 0 and the length of the array. Use an if condition to check to make sure each random number is unique (you want each of the 3 random numbers to be different.)
 - d. Now use innerHTML to modify your list to hold 3 new items from the array, based on the random numbers generated.
5. (15 pts) Write a web page (or modify your existing web page) that has a div. Give the div an id. Inside the div, there should be a header saying something like, “Spring”, or “Sports” (again, your choice). The header should have an id of its own. Underneath the header (but still inside the div) add a paragraph with a quote about the above header (whichever you picked). Make sure the paragraph has its own id.

Now create a javascript.

Inside the script, create an array of quotes (on the topic of the above header).

Create an array appropriate colors (in other words, I don't see black being a particularly spring-like color, but this is, of course your choice).

Create an array of background images (again pick appropriate images for the theme).

Generate a random number between 0 and the length of the quotes array. Make sure you have a variable holding the random number. Use `document.getElementById` and `innerHTML` to change the paragraph to the quote in the array at the random number. (using the paragraph's id).

Generate a random number between 0 and the length of the colors array. Change the header's font color to the color in the colors array at the random number using `getElementById` and `style` (and the header's id).

Generate another random number between 0 and the length of the colors array. Change the background image of the div (using the div's id) to the color at the color array of this second random number.

Generate yet another random number, this time between 0 and the length of the `backgroundimage` array. Use `getElementById` and `style` to set the background image of the div to the image in the `backgroundimage` array at the random number. Set the background position (using `getElemntById` and `style`) to `no-repeat`.

Now generate 2 more random numbers, each between 5 and 50. Set the background position (using `getElemntById` and `style`) to be the first random number from the top, and the second random number from the left.

Use `getElementById` and `style` to set the div's padding to 30 pixels.

Finally, generate one last random number between 0 and the length of the color array. Use `getElementById` and `style` to set `div`'s border to be 5 pixels, solid, and the color in the color array at the random number.