

JavaScript Hands On Exercise

Get into groups of 4 and complete the following JavaScript Exercises

On one of your computers, create a JS1Folder, and create a basic html page from your template. Then add the following javascript code:

1. Write a javascript that creates a different variable for each of the members of your group. Use document.write to write a paragraph stating, "Our group members are: " and then each variable (aka member name) being printed in the paragraph.
2. Add to the above javascript a document.write that writes out a header, stating "BMI problem"
3. Add to the javascript a prompt that asks the user their weight in pounds. It uses a second prompt and variable to ask the user to enter their height in inches. It uses a third variable (not prompted) to hold the user's bmi, calculated as follows: (weight multiplied by 703), divided by (height times height). Note: the parentheses are important because they tell javascript what to calculate first. Use document.write to write out the user's bmi.
4. Extend the above problem by adding the following feedback: If the bmi is 30 or greater, the script should write a paragraph that says, "Your weight is considered to be unhealthy." Otherwise if the bmi is 25 or greater, write a paragraph that says, "You are currently considered to be overweight." Otherwise if the bmi is 18.5 or over, write a paragraph that says, "Your weight is considered normal and healthy". Otherwise, write a paragraph that says, "You are considered underweight.
5. Add to the javascript a variable that holds a random number between 1 and 6. It uses that random number in a document.write to write a header of that size (e.g., <h1>,<h2>, etc) that says, "Random Number Section".
6. In the javascript generate a random number between 20 and 300 for the width (how do you do that?). It then generates a second random number between 20 and 300 (for height). It then uses document.write to put an image on the web page, with the width being the random number generated for width, and the height being the random number generated for height.
7. Add to the javascript a variable that holds a random number between 1 and 6. It uses that random number in a document.write to write a header of that size (e.g., <h1>,<h2>, etc) that says, "Rock Paper Scissors". (This is pretty much the same as 5, with different text).
8. Now create the game Rock/Paper/Scissors:
 - a. Find an image of a rock, an image of paper, and an image of scissors
 - b. Prompt the user to enter 0 for rock, 1 for paper, and 2 for scissors
 - i. If the user entered 0, use document.write to write out the html to display the image of a rock.
 - ii. If the user entered 1, use document.write to write out the html to display the image of paper
 - iii. If the user entered 2, use document.write to write out the html to display the image of scissors
 - c. Now generate a random number between 0 and 2 (including 2, so you'll have to use a range value of 3 because the last number is never included).
 - i. If the random number is 0, use document.write to write out the html to display the image of a rock.
 - ii. If the random number is 1, use document.write to write out the html to display the image of paper
 - iii. If the random number is 2, use document.write to write out the html to display the image of scissors
 - d. Finally, check. If the user's input number and the random number are the same, use document.write to write out, "tie".
 - e. Otherwise, paper(1) beats rock(0), scissors(2) beats paper(1), and rock(0) beats scissors(2). Use an if statement to write out whether the user won or the computer won.