Project 5

You will develop a webpage that will allow the user to play Rock- Paper- Scissors against the computer. The rules are:

If both players (you and the computer) pick the same hand gesture, it is a tie. Otherwise:

- Rock beats scissors
- Paper beats rock
- Scissors beats paper

		
Rock	Paper	Scissors

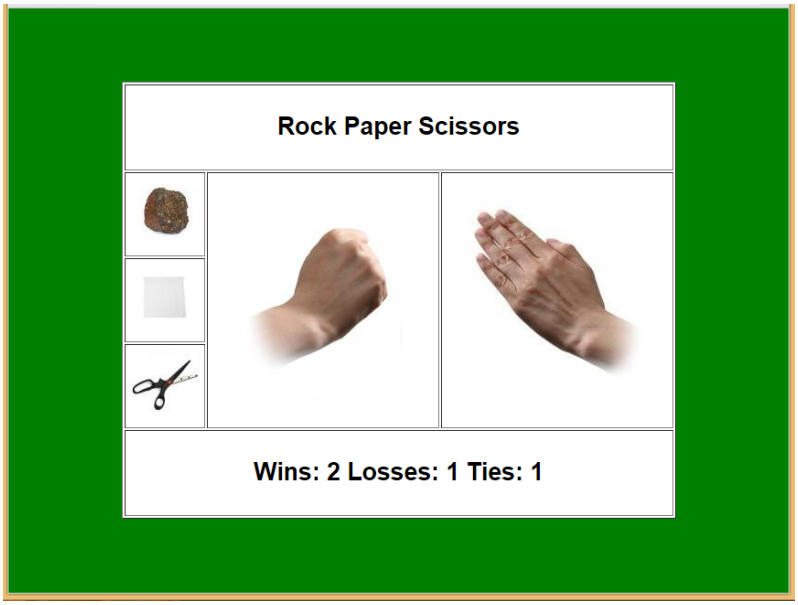
Sample Run

Note: When the page first loads, wins, losses, and ties are all zero. The left picture (paper) is the starting hand gesture for the human player and the right picture (rock) is the starting hand gesture for the computer. This webpage is event driven (which means nothing happens until the human clicks on one of the pictures).The user can click on the picture of the rock, the paper, or the scissor to make their selection. This means that the image tag should have an onclick attribute that calls a JavaScript function to do something (you figure out what).

Note: The picture above shows you what happens after I click on the scissors (I could have picked rock or paper, but I just decided to pick scissors). First the image on the left changes to reflect my selection (It is now the scissor hand gesture). The computer randomly makes a selection (It randomly picked paper….the selection had nothing to do with what I picked, it was random). Finally the statistics are updated (since scissor beats paper, the win is now up by one). Of course, all three things seem to happen simultaneously as soon as I click on my choice. Let us play again, this time I will pick paper (by clicking on the paper icon).

Note: I won again!!! The computer randomly picked rock. Notice how the statistics are updated. I will pick paper again.

Note: A tie!!! The computer randomly picked paper. Notice how the statistics are updated. I will pick rock this time.



Note: Bad choice for me. The computer randomly picked paper. Notice how the statistics are updated. We could keep going, but you probably get the idea by now. There is no "end" to the program, it will just keep going until you close the browser.

Implementation Details

Q) Where do I get the images from?

They are on ELMS with the project

rock.jpg	
paper.jpg	
scissors.jpg	
leftRockHand.jpg (the human player)	
leftPaperHand.jpg (the human player)	
leftScissorHand.jpg (the human player)	
rightRockHand.jpg (the computer)	
rightPaperHand.jpg (the computer)	
rightScissorHand.jpg (the computer)	

Q) How does the computer pick a move?

A) Just call Math.random() (remember it will return a value [0,1)…if it is less than 0.3333 it will use rock, if it is between 0.3333 and 0.6666 use paper, and if it is larger than 0.6666 use scissor.

Q) Can I use global variables (variables declared outside of all functions that can be seen and changed by all functions)?

A) As mentioned in class, using global variables is usually not a good idea, but it will make the coding of this project much easier. Therefore, yes you can use global variables. But only declare variables global if they need to be modified in more than one function or need to retain their values between function calls.

Rules

Your implementation of the project should exactly match the description above. A table needs to be used to organize the pictures, the title, and the statistics (in the layout shown in the sample run). It has to have a title, you should be able to click on the images of the rock, the paper, and the scissors, the human player has to be on the left (start with paper), and the computer on the right (start with rock), and the statistics on the bottom row. It should also function exactly as described.

However, you are free to pick the background color, the font, and table border styles that you like. All styles should be done in an external CSS file. In addition to all this, you have to include one additional statistical value not shown in the sample. For example, you could show the number of rounds played, the wins from the perspective of the computer, the number of times a certain hand gesture has been picked (either by the player, the computer, or both), etc. You make the selection, but whatever it is, it should be clearly labeled and it should go in a row **below** the mandatory row that has the wins, losses, and ties for the player.

Every student has to have this (Win, losses, and Ties for the player)

Your unique extra statistical information will go in a row here (not shown in the picture)

To Turn in Project 5

Make sure that you comment the HTML, the CSS, and the JavaScript. The CSS should be in its own file. The HTML and JavaScript should be in the HTML file. In the <body>, first have all of your HTML (for example setup the table, etc) and then open the <script> tag and place all of your JavaScript in there. Therefore, it will be HTML first and JavaScript at the bottom.

Make sure to use your name in the file name of the HTML and the CSS. For example, SmithJohnProject5.html. To turn in the project, place the HTML file, the CSS file, and all pictures used in **one folder**. Zip the folder and submit on Canvas before the due date.