Programming for Web Applications I – Lecture

:: Activity

Goal1: Assignment: The Duel - Part I (3h)

(Due: Sun, 30 Jun | Status: Not Completed)

Ready...Set...Fight!!!

This is part 1 in "The Duel" assignment series in which you will be creating a simple text base fighting game that you will modify and enhance as the course progresses. In part I, you will utilize basics skills such as variables, conditionals, and critical thinking.

Objectives & Outcomes

Successful completion of this activity will show that you can:

- Comprehend the use of functions and compartmentalizing code.
- Use arguments and parameters and understand return values from a function.
- Break down code logic and perform critical thinking.
- Assemble proper control structures using a for loop and the break command.
- Generate random numbers within a specified range.

Level of Effort

This activity should take approximately 240m to complete. It will require:

> 0m Research
> 15m Prep & Delivery
> 225m Work

If you find that this activity takes you significantly less or more time than this estimate, please contact me for guidance.

Reading & Resources

<u>ALL Rubrics</u> (necessary)

This is a Google doc link to ALL the Rubrics for ALL assignments.

<u>Assignment Files</u> (necessary)

This link has all the files you need to get started with this programming assignment.

Instructions

Getting Started:

- In your local branch of the PWA1 GIT repo, you should have a directory entitled "Wk1", if not please contact me or a lab specialist.
- Download the .zip file from FSO for this assignment and unzip it in the directory "PWA1/Wk1/". This is where all your assignment development files will reside.
- Create your JavaScript file "main.js" and store it in the directory "PWA1/Wk1 /goal1_duel1/js/".
- Using JavaScript comments, place your name, date and assignment at the top of the JavaScript file.
- You will need to create a script tag for js/main.js in your .html file.
- Make sure you adhere to proper folder constructs, if applicable (css, images, js, etc)

(Online) Please watch the associated screencast that shows the finished assignment and explains the rubric and requirements.

Criteria:

To obtain full credit on the assignment your submission should match the functionality of the demonstration. The following criteria must be adhered to as well as satisfying all items on this assignment's rubric.

- Create three variables for each player of the two players.
  1. player's name
     ex: var playerOneName = "Spiderman"
  2. player's remaining health
     ex: var playerOneHealth = 100;

3. player's damage. This variable determines the amount of maximum damage per round that the player causes.

    ex: var playerOneDamge = 50;

- Both players start off with 100 hit points (Health)
- To advance rounds, use the alert() function. The alert box will show the two players' remaining health and the round number.

  Example (alert button is clicked after each round)

      Batman: 100 **START** Spiderman 100

      Batman: 88 **ROUND 1 OVER** Spiderman 92

      Batman: 79 **ROUND 2 OVER** Spiderman 84

      Batman: 5 **ROUND 9 OVER** Spiderman 11

      GAME OVER Batman Wins!!!
- Damage occurs to both players at a random amount between half damage and maximum damage. So, if the player's damage variable is 50 then the amount of damage that can be inflicted will be between 25-50.
- Display the correct winner after the 10th round. If both players happen to die during the same round then display "No Winner Message".
- Minimum of two functions.
  1. fight() function – This function contains the code that loops through rounds and reduces the player's health accordingly.
  2. winnerCheck() function – This function is invoked after each round and returns a string of either the winner, the loser, a tie (both die) or no winner yet. This function does the conditional logic to determine if there is a winner or not.
- A break command is used to escape out of the loop if the fight is over before the 10 rounds is reached

Deliverables

You will submit your project via GIT. This is where your work will be graded. You will need to ensure you have at least 3 resonable commits.

Assets

- goal1_duel1