Assignment #1 – *Hi-Lo* in JavaScript and HTML

Who:
This assignment is to be done individually.

Description:
This is an individual assignment. You will write an application as part of an HTML file that will play a typical **Hi-Lo** game, where the player guesses values in a specific range until the correct number is found.

Objectives:
- To practice writing HTML and JavaScript functions
- To use some of the events supported by the Document Object Model
- Become familiar with client-side validation and feedback techniques

Requirements:
1. The entire application must be written in **one HTML page** using only JavaScript and HTML.
2. When the page loads, the user is asked for his/her name in a prompt.
3. After the name is entered, the user (by name) is asked for the *maximum guess* number
   a. The Hi-Lo game will allow the user to guess between 1 and this *maximum guess* value.
4. Your Hi-Lo game must create a *random integer* between 1 and the *maximum guess* number
5. The following must be components of the main *runtime* User Interface:
   a. A prompt and textbox to allow the user to enter the guess
   b. A button to submit a guess
   c. A message that informs the user about their last guess. It states the new range for a new guess (in other words, as the user guesses, and the number is too high or too low, a message changes the allowable high or low value appropriately so you don't have to remember the range)
   d. When the guess is correct, change the background colour of the page and show an alert with an appropriate message.
      i. At this point, show a "Play Again" button and reset your page to do it again
      ii. Only this time you don't need to prompt the user for their name.
6. Make sure that all data entered is validated for proper data type and in some cases proper data ranges/values
   a. Remember that the objective of the code is to create a workable Hi-Lo game
   b. Also remember that giving the user timely feedback is a mandated usability factor

Hand in:

1. The final HTML page
2. Make sure you comment appropriately, especially the header comments
3. When submitting your HTML to the drop-box, please ZIP it up first