Capstone Writeup on Calculator App

Overview:

A simple calculator web app that has the basic functions of addition, subtraction, multiplication, and division. It comes with a log window to view past calculations and a memory store that can be worked with using the 4 'M' buttons on the calculator. MS is memory store, MR is memory recall, M- is minus from memory and M+ is add from memory.

Functionalities/Test Cases:

* Addition:
  + Keying in 1 + 1 gives you a 2 on the display panel
  + The equation is registered in the logs tab
* Subtraction:
  + Keying in 1 – 1 gives you a 0 on the display panel
  + The equation is registered in the logs tab
* Multiplication:
  + Keying in 1\*2 gives you a 2 on the display panel
  + The equation is registered in the logs tab
* Division:
  + Keying in 4/2 gives you 2 on the display panel
  + The equation is registered in the logs tab
* C:
  + Pressing C clears the display of all entries
* CE
  + Pressing CE clears the last character of the display
* Using both keyboard presses and button clicks activate the calculator buttons
  + Check if clicking ‘2’ is generates same results as typing ‘2’
* Memory tab’s entries persist upon browser refresh due to using localStorage
  + Check if memory entries persist by refreshing or closing browser etc.
* Clear log/ clear memory
  + These 2 buttons at the bottom of their tabs respectively clear the entries
    - Check if entries are cleared and do not persist upon browser refresh etc.
* MS
  + Memory Store function
    - Check if number on display panel is saved to memory tab when pressing MS
    - Check if only when numbers are in the panel, then MS will work (it cannot save equations)
* MR
  + Check if number topmost on memory tab is displayed on display panel when pressed and displayed in memory tab
* M-
  + Check if number displayed on display is subtracted from topmost entry on memory tab and displayed again in memory tab
* On Invalid Input
  + If the calculator cannot process what is in the display panel it will throw an error alert popup and reset the display
    - Enter 3++3 to trigger an error popup
* When memory is cleared, MR M+ and M- is unable to be interacted with
  + If memory is clear, check if MR M+ and M- are whitened out and unresponsive to clicks
* When equal sign is pressed, only register equations and their results in the log window, do not do so for just numbers in the display window
  + Check if pressing equal when there is a ‘1’ in the display panel generates nothing (intended behavior)