

CSE 264 – Web Systems Programming – Fall 2014
Homework Assignment 4 - Calculator
Due Sunday, 9/28/14 at 11:59 pm.

Objective

To gain a better understanding of HTML DOM programming with JavaScript.

Description

You will create a simple four function calculator in html.

Instructions

1. Create a single html page that implements a simple four function calculator.
 - (a) Create a new HTML5 NetBeans project.
 - (b) The calculator should look like the image below.
 - (c) Display
 - i. The calculator display should always be right justified.
 - ii. It should initialize with a 0 in the display.
 - (d) Keys
 - i. The numbers on the digit keys, 0-9, should be red; all the others, black.
 - ii. The four function keys (+ - * /) should perform their normal functions.
 - A. They should perform the indicated function on the number in the display and the number that is keyed in immediately following.
 - (e) As each digit key is pressed, the digit should be concatenated to the right end of the display. If the result of a calculation is being show in the display, then the first digit pressed should replace the result with that digit.
 - (f) The calculator does not need to have any notion of operator precedence ($3 + 2 * 4 = 20$).
 - (g) The +/- key should flip the sign of the number in the display (and internally).
 - (h) The C key should clear out the calculator, as if it had just been turned on.
 - (i) The calculator should ignore any attempt to key a 2nd decimal point for the number in the display.
 - (j) All the keys are used by clicking on them with the mouse.
 - (k) The display should be read only.
 - (l) All internal arithmetic should be floating point.
 - (m) Make sure the calculator works in Chrome and Firefox. Don't worry about other browsers.
 - (n) Coding Style
 - i. Use a linked style sheet for all your styles. There should be no style declarations in your html file.
 - ii. Use unobtrusive JavaScript (***all*** your JavaScript should be placed in a separate file).
2. Extra Credit (+ 10%)
 - (a) Make the calculator also responds to the keyboard, in addition to the mouse. Assign a key to represent the +/- function.
 - (b) Implement the usual operator precedence: * and / first, then + and -.
3. Submission
 - (a) Zip up the project and submit to Coursesite.

