In Class Lab - ONLINE CALCULATOR (HTML / .CSS portion)

To start, you will need to make an HTML file that contains the following code:

<html>

<head>

<title>Calculator</title>

</head>

<body>

<div id="calculator">

<div class="keys">

<span>7</span>

<span>8</span>

<span>9</span>

<span class="operator">+</span>

<span>4</span>

<span>5</span>

<span>6</span>

<span class="operator">-</span>

<span>1</span>

<span>2</span>

<span>3</span>

<span class="operator">/</span>

<span>0</span>

<span>.</span>

<span>=</span>

<span class="operator">x</span>

</div>

</div>

</body>

</html>

This will create the div that will hold the calculator and create the keys that will hold the numbers and the symbols for each of the mathematical functions. You will save this File as Calculator.html.

Next, let's add some .css to make the buttons look correct.

You will create a new file and name it Calculator.css. Then you will add the following code to modify the following elements:

/\* Basic reset \*/

\* {

margin: 0;

padding: 0;

box-sizing: border-box;

/\* Better text styling \*/

font: bold 14px Arial, sans-serif;

}

#calculator {

width: 325px;

height: auto;

margin: 100px auto;

padding: 20px 20px 9px;

background: linear-gradient(#9dd2ea, #8bceec);

border-radius: 3px;

}

/\* Clear floats \*/

.keys {overflow: hidden;}

.keys span {

float: left;

width: 66px;

height: 40px;

background: white;

border-radius: 3px;

margin: 0 7px 11px 0;

color: #888;

line-height: 40px;

text-align: center;

}

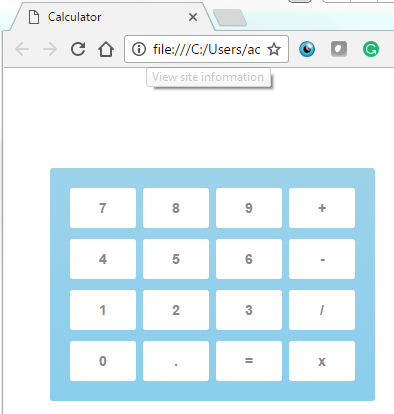
/\* Remove right margins from operator keys \*/

span.operator {margin-right: 0;}

Once that is done, you will need to add the following line inside of the <head> tag in your HTML file below the <title> tag to link the .css file to the HTML file:

<link rel="stylesheet" type="text/css" href="Calculator.css">

When you open the HTML file after linking the .css file, you should see the following output:



Next, the calculator needs to have an area where calculations are done:

In order to do this, you will need to add the following code to your HTML file in the <body> section within the calculator <div> and above the keys <div>:

<div class="top">

<span class="clear">C</span>

<div class="screen"></div>

</div>

This will add the C key (which will be used to clear the calculator), and add the area to add the calculations to the calculator.

You will then need to replace the code in your .css file in order to format the new sections and add shadows and highlighting to the buttons:

/\* Basic reset \*/

\* {

margin: 0;

padding: 0;

box-sizing: border-box;

/\* Better text styling \*/

font: bold 14px Arial, sans-serif;

}

/\* A nice BG gradient \*/

html {

height: 100%;

background: white;

background: radial-gradient(circle, #fff 20%, #ccc);

background-size: cover;

}

/\* Using box shadows to create 3D effects \*/

#calculator {

width: 325px;

height: auto;

margin: 100px auto;

padding: 20px 20px 9px;

background: #9dd2ea;

background: linear-gradient(#9dd2ea, #8bceec);

border-radius: 3px;

box-shadow: 0px 4px #009de4, 0px 10px 15px rgba(0, 0, 0, 0.2);

}

/\* Top portion \*/

.top span.clear {

float: left;

}

/\* Inset shadow on the screen to create indent \*/

.top .screen {

height: 40px;

width: 212px;

float: right;

padding: 0 10px;

background: rgba(0, 0, 0, 0.2);

border-radius: 3px;

box-shadow: inset 0px 4px rgba(0, 0, 0, 0.2);

/\* Typography \*/

font-size: 17px;

line-height: 40px;

color: white;

text-shadow: 1px 1px 2px rgba(0, 0, 0, 0.2);

text-align: right;

letter-spacing: 1px;

}

/\* Clear floats \*/

.keys, .top {overflow: hidden;}

/\* Applying same to the keys \*/

.keys span, .top span.clear {

float: left;

position: relative;

top: 0;

cursor: pointer;

width: 66px;

height: 36px;

background: white;

border-radius: 3px;

box-shadow: 0px 4px rgba(0, 0, 0, 0.2);

margin: 0 7px 11px 0;

color: #888;

line-height: 36px;

text-align: center;

/\* prevent selection of text inside keys \*/

user-select: none;

/\* Smoothing out hover and active states using css3 transitions \*/

transition: all 0.2s ease;

}

/\* Remove right margins from operator keys \*/

/\* style different type of keys (operators/evaluate/clear) differently \*/

.keys span.operator {

background: #FFF0F5;

margin-right: 0;

}

.keys span.eval {

background: #f1ff92;

box-shadow: 0px 4px #9da853;

color: #888e5f;

}

.top span.clear {

background: #ff9fa8;

box-shadow: 0px 4px #ff7c87;

color: white;

}

/\* Some hover effects \*/

.keys span:hover {

background: #9c89f6;

box-shadow: 0px 4px #6b54d3;

color: white;

}

.keys span.eval:hover {

background: #abb850;

box-shadow: 0px 4px #717a33;

color: #ffffff;

}

.top span.clear:hover {

background: #f68991;

box-shadow: 0px 4px #d3545d;

color: white;

}

/\* Simulating "pressed" effect on active state of the keys by removing the box-shadow and moving the keys down a bit \*/

.keys span:active {

box-shadow: 0px 0px #6b54d3;

top: 4px;

}

.keys span.eval:active {

box-shadow: 0px 0px #717a33;

top: 4px;

}

.top span.clear:active {

top: 4px;

box-shadow: 0px 0px #d3545d;

}

The final product of the HTML file should look like this when it is opened in a web browser:

