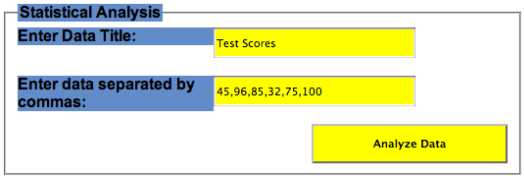
Homework 6—Data Averaging

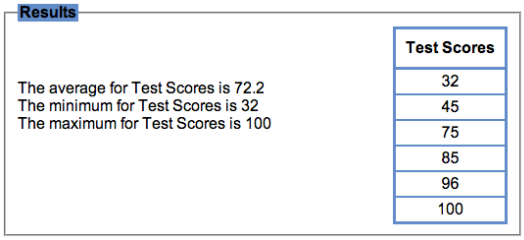
10 points

Due:	Wednesday, February 6 at 5pm
Assignment:	Create **one** php file that accepts a set of data, then shows them in order and calculates the average and finds max and min as described below. Put your page in a folder called *hw6*.
Turn In:	Submit the URL of your page to Blackboard Vista, and upload your php to BBV

When first opened in Firefox, your page should look something like the image to the right.



After entering a title and some data separated by commas and pressing the button, the page should show the data in a table in order, and their average maximum and minimum something like the image below. It should work with any number of values entered.



Your php code should check to see if anything has been entered, and if so calculate the average, maximum and minimum **using a separate function for each.**

To calculate the average:

1. Get the text representing all of the values from the input field into a variable
2. Use the explode() function to separate the text by commas, and put each separate value into an array
3. Sort the array in order from smallest to largest (use the sort() function)
4. Use a foreach loop to get the values from the array one at a time, calculating the sum.
5. Divide the sum by the size of (number of elements in) the array (use the php "sizeof()" function). The sizeof() function can be used like this:
   $numberOfScores = sizeof(scoresArray);
6. Return the average as the function return value

Display the average to exactly 1 decimal point (use the number_format() function)

To find the maximum data value in the array; you can also use a foreach loop as follows:

1. Define a function called findMax that accepts an argument which is the array..
2. Set a variable (for example $maximum) equal to the first element in the array.
3. Use a foreach loop to access each item in the array.
4. For each iteration of the loop, compare the current array value to the maximum. If the current array item is larger than $maximum, set $maximum to the new value.
5. When the loop is complete, the $maximum should be the largest item in the array.
6. Return $maximum as the function's return value.

Create an analogous function to find the minimum data value in the array. Alternatively, you could sort the array and return the first element for min and the last for max. In either case, you must use a function to find the maximum, and another function to find the minimum.

Since we've learned how already, make your input field sticky. All input fields should be sticky for the rest of the semester.

Finally, here is the CSS I used. You can make yours look different if you'd like.

```
<style type="text/css">
	body{
		font-family: Arial, Verdana, sans-serif;
	}
	legend {
		background-color: #648dc7;
		font-weight: bold;
		font-size: 36;
	}
	input {
		width: 200px;
		height: 25px;
		background-color: yellow;
	}
	input.mybutton {
		height:40px;
		float:right;
		background-color:yellow;
		font-weight:bold;
		position:relative;
		bottom: -0px;
	}
	fieldset {
		clear: both;
		padding 5px;
		width: 500px;
	}
	label.field {
		text-align: left;
		float: left;
		width: 200px;
		font-weight: bold;
		background-color:#648dc7;
	}
	table {
		border-collapse: collapse;
		border: 3px solid #648dc7;
		text-align:center;
	}
	th {
		font-size: 14;
		padding:10px;
		border: 3px solid #648dc7;
		text-align: center;
	}
	td {
		font-size: 12;
		border: 2px solid #648dc7;
		padding: 3px;
		text-align: center;
	}
</style>
```