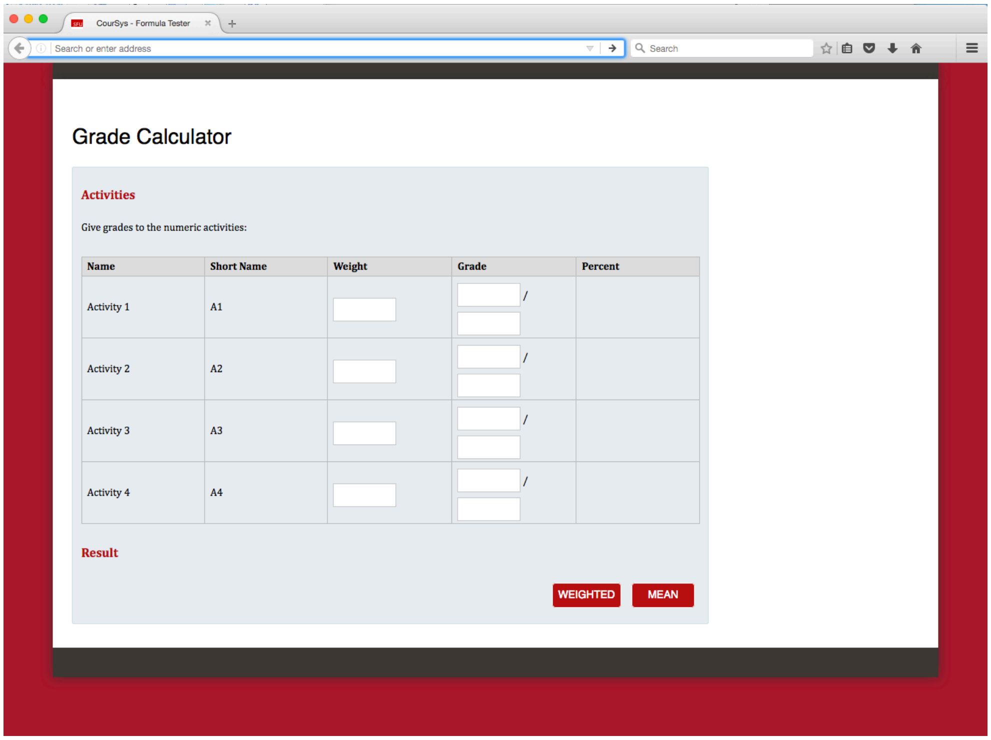
Assignment 1 (Due: Sept 27, 23:59:59) – 3%

Part A - HTML/CSS:

Create two a file called “calculator.html” and “calculator.css” to recreate (as close as possible) to the following picture (copied from coursys – and shown in a browser window):



Grade Calculator

Activities

Give grades to the numeric activities:

Name	Short Name	Weight	Grade	Percent
Activity 1	A1		/	
Activity 2	A2		/	
Activity 3	A3		/	
Activity 4	A4		/	

Result

You may make any reasonable guesses on fonts, colors and measurements. You may add additional HTML elements for the next part, but we will only look for the elements in the previous picture.

Part B – Javascript

Create a file called “calculator.js” that will calculate allow users to choose to produce a calculated “Mean of grade” or “Weighted grades”. The result should be displayed under the “Result” label in the above picture. The Percentage column (the percentage of the corresponding activity) should be updated as the user is typing the into the “Grade” Column.

Mean of grades

The sum of all grades divided by the total number of grades

A1 70/100, A2 20/80, A3 10/10:

(0.7 + 0.25 + 1.0)/3 = 0.65 → 65/100

Weighted grades

Each grade item can be given a weight, which is then used in the arithmetic mean aggregation to influence the importance of each item in the overall mean. In simple terms, the category "total" will be equal to the sum of the scores in each grade item, these scores being multiplied by the grade items' weights, and that sum being finally divided by the sum of the weights, as shown in this example.

A1 70/100 weight 10, A2 20/80 weight 5, A3 10/10 weight 3:

(0.7*10 + 0.25*5 + 1.0*3)/18 = 0.625 → 62.5/100

Hint: You may want to consider Javascript functions

```
onclick()
getElementsByTagName()
getElementsByName()
```

Usability and Effort:

A small portion of the grade will be dedicated to usability and effort, this is learnability and likeability. Existence of bugs, lack of error checking may result in a lower usability score.
For the Effort mark, add at least two other features to this application; this will be a chance for you to play around with the Javascript tools and will train our minds to think about additional features. An example of an extra feature would be the ability to add more rows :). If you are unsure whether your idea is acceptable, please see either the TA or myself.

Marking Scheme:

Part A –
6 marks: The colors, fonts, and spacing should follow the picture as much as possible.

Part B –
10 marks: The correct values should be calculated.
5 marks: Effort, Usability.

Project:
1 marks: Running on Heroku
1 marks: project pushed onto github or gitlab (in addition to the git link provided by Heroku) - We must be able to find your working app at the webapp link, and should be able to clone your project at the git link.

Submission:

Your webpage could either be stored in the “public” folder of your heroku webspace or in a view with an empty controller. As with all subsequent assignments/project iterations, you should submit the following onto coursys.

1. The URL of your **webapp**, this is where we’ll be able to play around with your application
2. Your **git link,** this is where we can view your code, your progress and time of submission ☺