

Requirements

Modify the instructor's solution (not yours) to the Assignment 01 Tip Calculator to change it to a simple Vue.js app. All rules for calculations and validation should remain the same, but use Vue.js for databinding and to make the UI reactive, similar to what was shown in lecture.

- 1) Link to the Vue.js code using:
 - a) <https://vuejs.org/js/vue.js>
- 2) Move all CSS code to a separate CSS file and link to it from the HTML file.
- 3) Your JavaScript code should not directly interact with DOM UI elements.
- 4) As in Assignment 01, your UI consists of:
 - a) Total check amount – textbox, default to empty
 - b) Sales Tax Percent – textbox, default to 7%
 - c) Tip Amount Percent – textbox, default to 18%
 - d) Sales tax amount – read-only text (*your code must calculate this amount using the total check amount and sales tax percent*)
 - e) Tip amount – read-only text (*your code must calculate this amount*)
- 5) UI changes from Assignment 01, include:
 - a) Replace the two calculate buttons with two radio buttons that can be used to indicate how the tip amount is calculated.
 - b) When needed, display error messages directly on the form next to the input with the error. Do not use the *alert* function.
- 6) Use whatever method you like best for placement and position of the UI objects.
- 7) A low-fidelity mockup for the UI is shown below:

| | | |
|---|------------------------------------|-----------------|
| Check Amount | <input type="text" value="87.59"/> | (error message) |
| Sales Tax % | <input type="text" value="7.0"/> | (error message) |
| Tip % | <input type="text" value="18.00"/> | (error message) |
| Sales Tax | <input type="text" value="5.73"/> | |
| Tip Amount | <input type="text" value="12.28"/> | |
| <input type="radio"/> Tip Pre Tax <input checked="" type="radio"/> Tip on Total | | |

- 8) The user must be able to enter values for Check Amount, Sales Tax Percent, and Tip Amount Percent.
- 9) When either of the three number inputs change, validate that input value to ensure it is a positive number with at most two decimal positions. If invalid, display an appropriate error message next to the textbox in error. An exception is if the input box is empty. If an input box is empty, do not display an error message. Use mustache syntax for binding the error messages.

- 10) When any of the input values change (including the radio buttons for how to calculate the tip amount), calculate and display the sales tax amount and tip amount as long as all input values are valid. Use Vue.js computed values/functions for computing these values.
- a) If input is invalid, Sales Tax and Tip Amount should display as empty strings
- 11) Your submitted source code should contain three files – an HTML file, a CSS file, and a JavaScript file.
- 12) You may (but are not required to) use third-party code for UI layout, appearance, and data validation when completing this assignment.

Submission

Submit your assignment using Vocareum before **Thursday, November 30th, 11:00 pm**.

Warning! This due date was chosen to not infringe on your Thanksgiving break plans, but it is advised you finish as much sooner than the due date. Homework Assignment 09 will be more involved than Assignment 08 and will be due on Thursday December 7th.

Scoring

Please help us expedite the grading process by including your own comments in the table below if you didn't give yourself the Max Points or if you have any questions about the way you coded something. Failure to do so may result in a score of zero or at least require you to resubmit your work.

| Max Points | Requirement |
|------------|---|
| 5 | Correct file submission (HTML, CSS, JavaScript), coding style and readability, etc. |
| 5 | General UI appearance. |
| 10 | Correct initialization of the Vue instance and view model. |
| 10 | Correcting binding of the UI elements to the view model. |
| 10 | Correct validation and display of error messages (including no message when inputs are empty) when input values change. |
| 5 | Correct calculation when any input values change. |
| 45 | Total |