Faculty of Science, Engineering and Technology

Interface Design and Development

Credit Task 3.3: Compute Web App

Overview

Using expression and conditional directive in VueJS, it is possible to create programs that dynamically respond to user input. In this task, you will create a small web application that uses expression and conditional directives to dynamically compute the body mass index (BMI) and output custom message to users.

Purpose: Learn to use expressions and conditional directives to respond to user actions.

Task: Create a web app that computes BMI and displays a custom message.

Time: This task should be completed in your tutorial and submitted for feedback before the start of week 5.

Resources:

- Lecture notes 3
- VueJS https://vuejs.org/

Submission Details

You must submit the following files:

- BMI calculator source code (compute.html).
- Screenshot of the BMI web app. **Please submit the screenshots as separate files (not inside a zip).**

Make sure that your task has the following in your submission:

- The BMI calculator web application is HTML5 compliant.
- Demonstrates understanding in using the VueJS framework.
- Demonstrates use of VueJS expression and conditional directives.

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Instructions

Without VueJS, writing a web application with computational interactive can be quite tedious. Using JavaScript will require several listeners to be hooked up to the input form elements in order to interactively update the view with the updated computed values.

With VueJS, the task is straight forward using model and expressions. And custom message can be implemented using conditional directives, such as v-If and v-Show

1. Open Brackets (or other editor) and save the blank file as compute.html in your lab03 directory.

2. Start the web application code with the template for VueJS found in lecture 03.

3. Implement a web application with the following logic:
   - It reads 2 inputs, namely: weight in kilograms, and height in centimetres.
   - Compute and show the calculated BMI. The formula is

     BMI = bodyweight in kilograms divided by height in meters squared
   - Display the appropriate custom message whether the calculated BMI is ‘underweight’, ‘normal’. ‘overweight’ or ‘obese' based on the following BMI cut off points

Underweight:	below 18.5
Normal weight:	18.5 to below 25
Overweight:	25 to below 30
Obese:	at least 30

```
Web App: compute.html
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Uses: VueJS version 3.x
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--- Model:
- numBMI (computed BMI)
- numWt (weight in kilograms)
- numHt (height in centimetres)
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--- Steps:
1: Initialise numWt and numHt to 0
2: Assign numWt using v-model with the prompt: 'Enter
    weight in kilograms:'
3: Assign numHt using v-model with the prompt: 'Enter
    height in centimetres:'
4: Show with 2 decimal places 'Computed BMI is: '-place
    (assign and compute BMI formula) here-
5: Using v-if compare BMI with the range
6:        Output custom message
7: Repeat (5-6) 3 more times using the subsequent ranges
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Tip: Remember height is in centimetre while formula solves height in meter.

Note: Form element is used in this task to wrap all input elements. It is optional to style your app with Bootstrap for this task.

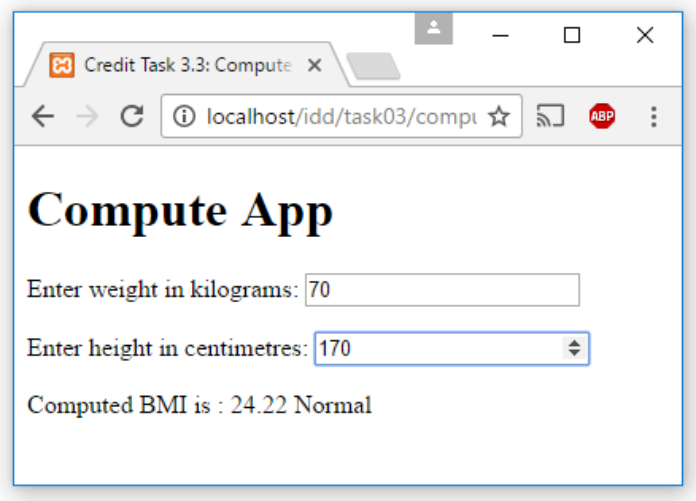

Figure 1: Screenshot of the web app with no Bootstrap mark up

Now that the task is complete you can submit it for assessment, which will help prepare it for your portfolio.