**AKQA Number to Words Solution**

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# Requirement

Develop a web application that performs the following functions:

* Capture a person’s name and a number
* Convert this number into words
* Render this name and number (as words) as a web page.

For example: Input: John Smith “123.45”

Output: John Smith

“ONE HUNDRED AND TWENTY-THREE DOLLARS AND FORTY-FIVE CENTS”

# Solution set-up

* Please press Ctrl + F5 to test the application

# 

# Solution Details

There are two projects

### AKQA.Feature.ConvertNumberToWords

### It contains an MVC project, the flow starts from Home controller and renders the text boxes for Name and Number in Index.cshtml view which is render from “Home Controller”.

### The css classes used in Index.cshtml for label, textbox etc are from bootstrap.css (already provided in MVC framework)

### The Convert button in Index.cshtml calls the Jquery on button click present in custom.js file in Scripts folder.

### Custom.js has the validations and ajax is used to make the API call.

### There’s a web api controller in the same project called NumberToWordsApiController which converts the number into words. Please note I’ve not created a separate project for WebAPI service as it makes sense to group them under same project referring to Helix principle and, in the requirement, it is mentioned that project should execute using simple F5 command. Also, if it is in the separate project, I need to host the WebAPI and have to add header for Cross Domain request.

### Once the call is made to the API it interns calls the Repository which holds the business logic to actually convert number to words. I’ve copied the logic from Google -<https://stackoverflow.com/questions/43334034/convert-number-with-decimals-in-currency-to-words> and modified a bit to fix a few issues in it.

### Once we get the response from API, it is shown on the page using AJAX.

### 

### AKQA.Feature.ConvertNumberToWords.Tests

AKQA.Feature.ConvertNumberToWords.Tests project contains a unit test case to test the logic written in the repository. It uses Fluent Assertions and NSubstitute.

Screenshot

