# Code Prep

* This code works on Visual Studio 2015 IIS server. In case it does not run in your environment, try the following two things.
  + Add this code block to Web.Config:  
    <system.webServer>  
     <staticContent>  
     <mimeMap fileExtension=".json" mimeType="application/json" />  
     </staticContent>  
    </system.webServer>
  + If that doesn’t work, copy and paste the array from books.json into the $scope.books variable.
* This code is meant to run from a server. If there is no server available, we can just get rid of the ng-include directives on the divs and copy and paste the template files into the appropriate divs. This will still work, but it will do away with some of the niftier features of Angular.

# Tasks

* Build the display table.
  + The heading row is given to you. Use an ng-repeat directive on the table row tag and then display all of the attributes of each book object. The Edit and Delete will be present in each row.
* Make sure that functions invoked by ng-click set the view variable to the correct value. Also, make sure that the heading of the page changes based off of what you are doing (viewing the table only, creating, or editing).
* Implement the Add New link.
  + Clicking Add New should create a new row immediately. It will show the form for adding a new book, which will then populate as you populate values in the fields.
* Implement the Edit link
* Add Custom Validation for Forms
  + HTML already has required attribute in the input field, so add Javascript in controller to add other validations (e.g., should a user be able to put ‘f’ as the number of pages?). This validation should be present in both the New and Edit functionalities.
* Determine Primary Key
  + There is no bookId in the json file. Think about what combination of properties should be sufficient to determine the key of the library. Make sure to use that to prevent duplicates when creating new and editing book records.
* Fully Implement Delete Function
  + There is no bookId in the book object. Think about what you would have to check for in the $scope.books array
* Prevent duplicate records from appearing in the table.
  + This will require looping through the table ($scope.books), and if there is a match based on your composite primary key, exit out of the

# Tips

* To delete item i from an array, use Array.splice(i, 1). This will delete one item from position i of the array.
* For validation messages, you can use the alert() method. For “bonus” points, you can have a hidden span that appears if the validation condition is met. Hidden spans look much better than window alerts, and they are less disruptive to the user’s experience.
* The following line of code is a handy way to exit a function at any time:  
  return;
* To determine if you have a duplicate record after editing, use $filter. See here for syntax:  
  https://docs.angularjs.org/api/ng/filter/filter
* Always have the debugger tools open in your browser. Set breakpoints in the javascript files (Sources tab in Chrome; Debugger tab in Firefox), and see what the values of the values are during the breakpoint by checking in the console.
* To add an element to an array, use Array.push(element)