# ICA12 - Countries (Ajax, jQuery and JSON)

## Using JavaScript to read and iterate through external data

In this demonstration you will write JavaScript that retrieves JSON data from an API endpoint, found here:

<https://restcountries.com/v3.1/all>

## Instructions

Visit the API endpoint by typing <https://restcountries.com/v3.1/all> into a browser.

1. It’s hard to read that way! You may wish to visit <https://jsonformatter.org/json-parser>, click the “Load Data” button and enter the restcountries.eu URL into that form. (Either that, or open the URL using the Firefox browser.)
2. Retrieve ica12\_countries.zip provided by your instructor.
3. Extract the code into your mis2402workspace and open the countrydata.html file in Visual Studio Code.
4. Take note of the basic structure of the getJSON method.

|  |
| --- |
| $.getJSON("",function(result){  // the variable named result has  // block level scope inside the callback function.  // it is a good practice to display result in console.log  console.log(result);  }); |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Complete the displayCountries function. This function should loop through all the countries in the data source, and append the country name, and a country abbreviation into the table identified by #table-countries.
   1. HOT TIP: The function starts with a line that replaces all the existing content of the table with a header row. It’s usually a good idea to do that.
   2. EXPERIMENT: After you have written your solution, what would the effect be if you \*didn’t\* include the line described in step 5a? What are the consequences of skipping that step? (You don’t see it right away but take note of what happens if you click the display countries button more than once!)
2. Complete the findBiggestPopulation function. This function should find the name and population of the country with the largest population. Report this information in #textDisplayed2.

Here are some hints:

* 1. Create one variable to hold the name of the country and another to hold the population.
  2. You will need to loop through all the countries in to find the most populated country.
  3. Inside the code block of the “for” loop, a write a conditional statement.

1. Complete the findBiggestArea function. This function should find the name and area of the country with the largest area. Report this information in #textDisplayed3.
2. Earlier in the semester we have used a for loop to populate an HTML list, an HTML select tag, and an HTML table. Can you edit the document to create a new button, and a new HTML tag, that puts all the country names, and country capitals in an HTML ordered list?
3. Upload your work. Be sure that you can find your work on the class server by typing in its URL in the browser. Test your work \*again\* on the class server.  
     
   For example:

https://misdemo.temple.edu/tux99999/ica12\_countries

1. Make sure that your work is uploaded by visiting the URL to your work.
2. Submit the URL to your works using the corresponding assignment on canvas.