

# ICS215: Assignment 5

Due on Wednesday, October 30, 2013 at the beginning of the lecture (10:30am)

*Dr. Jan Stelovsky*

*Halawai Online Lecture MW 10:30am*

Please hand in scripts by email to Andreas Brauchli [andreasb+ics215@hawaii.edu](mailto:andreasb+ics215@hawaii.edu)

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October 16, 2013

## Javascript Basics

This assignment should build up your previously acquired basic Javascript skills.

All problems must be completed by the hand-in date **before 10:30am** or carry a late-submission penalty of 20% per day. It is strongly suggested to start early, as you may need the time to complete the tasks.

Please account for answering time when you have questions about the assignment. Email questions on the last day before submission may not be answered in time.

**Please only hand in the completed javascript file ex5.js. Do not hand in any html and css files.**

### Problem 1

#### JSON, objects and functions - 5pts

Read up on JSON objects and how to extract them (e.g. from <http://api.jquery.com/jquery.parseJSON/> or other sources).

Then, complete the function `fobj` in the javascript skeleton such that

1. The json string in `myjsonobj` is extracted to `myobj`
2. `doSomething` is called with the extracted `myobj` as argument.

Check the output in the javascript console (See problem 2.)

### Problem 2

#### loops - 5pts

Use jQuery's `$.each` loop function to print the textual content of each html list element (`li` tag) to the javascript console. The html list (`ul` tag) carries the id `list`.

Read up on anonymous functions (e.g. [http://en.wikibooks.org/wiki/JavaScript/Anonymous\\_Functions](http://en.wikibooks.org/wiki/JavaScript/Anonymous_Functions) - or from other sources) and create such an anonymous function that prints the list contents to console. Then pass it as argument to the `each` function.

The web console in firefox is accessible via the menu item "Web Developer > Web Console". For chrome/chromium "Tools > Javascript console". To print to the console use the function `console.log('log string');`. Implement your solution into the provided javascript skeleton, inside the `loops` function.

Read up on closures (e.g. from <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Closures> or other sources) if you have difficulties with the concept of using functions as arguments to functions. Remember that in Javascript, functions are also objects, so passing a function is no different from passing an object.

### Problem 3

#### jQuery event - 10pts

Read up on using javascript to draw on an html canvas (e.g. [http://www.w3schools.com/html/html5\\_canvas.asp](http://www.w3schools.com/html/html5_canvas.asp) or other sources).

Implement the function `circles` such that a circle is drawn onto the canvas upon a mouse click on the canvas. Upon each consecutive click, the center of the circle must shift (otherwise consecutive circles will not be visible).

You will get 4 extra points if the circle is drawn such that it is centered at the location of the click. No additional help is given for these extra points.