JavaScript

Lambda functions - you can define/pass functions as variables (ie function() { })

- JavaScript functions often have an onComplete function passed that will run when the called function completes

Objects - these are basically dictionaries in JS and they are important

```
var hello = {
   hi: world;
};
hello.world = true;

// hello is now an object with hi and world keys corresponding to their values

// This is particularly useful for modularized code
// each file can correspond to an object and all of its function are defined in the file
var framework = {};
framework.setupDatabase = function() {
   // blah
};
// when you refer to a function in a different module call something like: framework.setupDatabase()
```

Asynchronous Functions

In JavaScript you have a stack similar to C. You also have a "callback queue", which is for asynchronous callbacks. In JS, certain built-in functions pass onComplete functions to the callback queue instead of excecuting them immediately.
These built-in function include setTimeout, WebSQL functions, etc.
When the stack is clear, the browser takes code from callback queue and runs it in the stack.

```
var loop = true;
setTimeout(0, function() { loop = false; }); // waiting for all code in stack to finish
while(loop) {
  // I'm looping (keeping stack occupied) until loop is changed to false
}
// code never terminates
```

Helpful Functions (they cascade too)

```
.reverse()   <- reverse array
.join(text)  <- join array of strings (to produce 1 string) with 1 copy of text in between each element
.split(text) <- split string into an array using text

"12 34 56".split(' ').reverse().join(' '); // yields "56 34 12"
```

Developing in Google Chrome

Google Chrome has its own debugging tool and it's very good! Simply right click on an element and click "Inspect Element" and the Chrome debugger will show.

- you can change CSS, html, JS and get real-time feedback

Important Tabs

- Elements - html of what is being displayed
- Sources - source code
- Resources - stored data and files (ie we will use this for viewing WebSQL tables)
- Console - allow you to type in JavaScript that will run

Good to Know

- basic JQuery
- basic html
- basic css