Intro to JavaScript Lab

In this lab we'll see how to get JavaScript running on a web page and apply your already excellent programming skills to JavaScript.

Set up a web server
1. Open a terminal/command window and create a project directory called "labs".
2. cd to that directory and create a package.json file by running this command in it:
```
npm init -y
```
3. Install http-server, a simple web server:
```
npm install http-server --save-dev
```
4. Edit the package.json file and add this to the "scripts" section:
```
"start": "http-server"
```
5. Run the server by typing this on the command line:
```
npm run start
```
6. Create a new HTML file called index.html in this same directory. It should at minimum have a
```
<div id="main"></div>
```
7. Open a browser and navigate to the address of the web server. It will be something like
   http://localhost:8080
8. You should see your file rendered in the browser.

Add some JavaScript
9. Create a file in your project folder called index.js. Just put this in it:
```
alert("Hello world");
document.getElementById("main").innerHTML = "Hello world";
```
You knew that was coming, didn't you? ;-)
10. Edit your HTML file. Add a script tag pointing to this file. (hint: If the page doesn't show your message, try using the *defer* attribute in the script tag).
11. Refresh or reopen in the browser. You should see an alert box that says "Hello world". This proves that your JavaScript file is running.

Writing some simple JavaScript routines
Let's exercise JavaScript a bit to get you comfortable with the basic loops and conditional tests. Do each of the exercises below using

12. Create a random number between 1 and 10 like so:
```
let min = 1;
let max = 10;
let random = Math.floor(Math.random() * (max - min + 1)) + min;
```
13. Make the page print out numbers from 1 to your random number.
14. If the random number is 10, print out "Max number chosen". If it is 1, print out "Minimum number chosen".
15. If you wrote your loop using *for*, rewrite it as a *while* loop. If you wrote it as a *while*, rewrite it using *for*.

Once you've seen each of those things working, you can be finished.