## **Javascript tests**

Code was only tested in Chrome browser

## **Events**

This is really badly specified - I'm guessing that this is intentional?

- 1. First it says "It is not intended that you append any elements, programmatically or otherwise, to the body element of the document." Then it says "Create a canvas node." These are contradictory as a canvas node is an element and I considered stopping the task at this point. In a business situation I would have gone back to the requestor for clarification before proceeding.
- 2. However in the spirit of trying to provide and an answer I created a canvas programatically that was positioned over the div and and put a mouse move event listener on it. When the mouse was still for .5 of a second I considered it to be hovering. The I would get the position of the mouse and get the image data (using getImageData) from the canvas context. However I could not get this to work as it only returned information about the canvas not the underlying images. (Maybe I don't know enough about canvas I've not found a use for it in the work I've done yet.)
- 3. So then I decided to add the images to the canvas programatically and try again. But this time I got a problem with an error: *The canvas has been tainted by cross-origin data* when calling getImageData. This is because I was running the html file from the file:// context. I tried moving the image files to dropbox but got the same result.
- 4. So then I moved to using node as a local http server. You can use any local http server but if you wish to use Node.js these are the steps when using a mac (though should be similar under windows)
  - 1. Install node is it usually installs npm at the same time.
  - 2. Run the command at the command line: *npm install http-server -g*
  - 3. Go into the directory where you have unpacked the source code and run *http-server*. It will tell you what port localhost is running on.
  - 4. At the browser run localhost and call the script e.g. <a href="http://localhost:8081/events.html">http://localhost:8081/events.html</a>
- 5. Now I was able to complete the rest of the exercise. Though I was unsure of the purpose of sending an event to the green image.
- 6. Perhaps this could have been solved by adding mouse move listeners to the image files rather than than the canvas. However I had spent more than two hours on the test and so decided to stop at that point.

## **Scoping**

This was a simple refactor to create a function factory to return the click function.