Web Development – Mr. Turner

Project – A Little Taste of Game Programming

**Project Overview**

Create a program where the client can control the continuous movement of an image around the screen using either the keyboard or the mouse.

**The Page**

The page should be programmed in layers, each layer giving the user more functionality.

Layer 1: Place the image on screen and give the user control of the image through the use of the arrow keys.

Use the *onkeydown* event to allow yourself access to the arrow keys. Each time one of the keys is pressed, the image should move in the proper direction.

Layer 2: Create boundaries for the image so that it can’t go off screen.

Layer 3: Create continuous movement. Every time the user presses a key, the image will move in the specified direction and ***continue to move*** until its direction is changed or its movement is halted by the ***space bar***.

In order to create continuous movement, you will need to use a timer created with *setInterval*.

Layer 4: Allow the user to create a directional flow for the movement by using the mouse. Whenever the user clicks anywhere within the boundaries, the image will change direction and move toward the click.

In order to accomplish this, you will need to determine the equation of the line between the image’s current point and the point of the mouse click. Move it along the line by changing the x and y values continuously.

**Programming Requirements**

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| * You must code your own HTML and CSS. Use of a drag and drop interface or the usage of code downloaded from the internet is not permitted. |
| * Use of deprecated code is not permitted. Use an HTML 5 reference as your guide. |
| * You must comment your name into the top of every page. |
| * Your code must be structured in a consistent and legible manner |
| * Your text must be organized through the use of sectioning tags (div, span, p, h1 – h6). Tables are acceptable for data but not for page design. |
| * Your interface must be smooth and easy to figure out for a client. |
| * Your pages must be formatted using CSS. |