**Project description - Paint Program**

**Using**:  
HTML5  
CSS3  
JAVASCRIPT

A Paint program which allows the user “To Unleash Their Inner Divinci”, Where the user has the opportunity to pick from a variety of colours, pen thickness, erase content, draw shapes and finally save the image to their preferred destination

This program primarily uses the HTML5 Canvas in conjunction with JavaScript Functions to track the users Mouse movement; (see below)

* Canvas.onmousedown = startDrawing;
* Canvas.onmouseup = stopDrawing;
* Canvas.onmouseout = stopDrawing;
* Canvas.onmousemove = draw;

**Scope**:  
I would add more functions, such as various types of pens; Crayons, Paint Brushes.

I would also change the function of mouse movement, at the moment the edges whilst drawing are sharp, using another method where the mouse movement is tracked pixel by pixel; I could achieve a smoother circle.

**Product Description – Maze Runner**

**Using**:  
HTML5  
CSS3  
JAVASCRIPT

A JavaScript game where the user has to try and escape the Maze within Two Minutes, this game consists of four levels of difficulty; Easy, Medium, Hard and Extreme (Which Is Near Impossible)

The program uses Keyboard Functions, “UP”, “DOWN”, “LEFT”, “RIGHT”, to allow the user to navigate the Icon through the maze. I used the setTimeout() function and set it to 10milliseconds, this drew the Icon frame by frame, every 10milliseoncds for a smooth transition of the moving icon.

I also incremented its position using ‘DX’ and ‘DY’ which allowed the Icon to continue moving in its direction using context coordinates until another command was called or if there was a collision; I learnt about DX and DY my Paint Program where I learnt about drawing lines in the canvas, I felt this would be a great implementation.

Using RGBA Colour Space (Red, Green, Blue, Alpha) to check for collisions, I then inverted these colours to enhance the collision function by making sure all core pixel colours were being checked.

**Scope**:

I would add sound to the game, for example, crashing sound when there is a collision or a sound of cheer when you have successfully escaped the maze.

I would add an option for the user to see the solution of escape, especially for the level “Extreme”

To add to design factor, each maze I would have changed the navigation icon and colour trail, to bring something fresh for each level.