

## Part 1

Write a JavaScript program that modifies an image by putting three vertical stripes on it - a red stripe on the left one third, a green stripe in the middle, and a blue stripe on the right one third. For example, if your program ran on Drew's picture shown on the left, the resulting image would have red, green and blue vertical stripes as shown in the image on the right.



```
// write your code here

var image = new SimpleImage("hilton.jpg");
var width=image.getWidth();
var redStart=0;
var endRed=width/3;
endRed=Math.floor(endRed);
var startGreen=endRed+1;
var endGreen=startGreen+endRed;
var startBlue=endGreen+1;
var endBlue = width;
for (pixel of image.values())
{
    if(pixel.getX()<=endRed)
    {
        pixel.setRed(255);
    }
    else
    {
```

```
        if(pixel.getX()<=endGreen)
        {
            pixel.setGreen(255);
        }
        else
        {
            pixel.setBlue(255);
        }

    }
}

print(image);
```

## Part 2

Write a JavaScript function named `swapRedGreen` with one parameter `pixel` (representing a single pixel). This function should swap the red and green values of the pixel. For example, if you have a pixel with `red = 255`, `green = 100`, `blue = 150`, after calling `swapRedGreen` on that pixel its new RGB values would be `red = 100`, `green = 255`, `blue = 150`.



```
function swapRedGreen (pixel)
{
    var red_val=pixel.getRed();
    var green_val=pixel.getGreen();
    pixel.setGreen(red_val);
    pixel.setRed(green_val);
    return pixel;
}

var image= new SimpleImage("eastereggs.jpg");
for(var pixel of image.values())
{
    pixel=swapRedGreen(pixel);
}

print(image);
```

## Part 3

Write code to change the Duke blue devil (the image below on the left) to be yellow (as in the image below on the right).



```
var img = new SimpleImage("duke_blue_devil.png");  
for(var pixel of img.values()){  
    if(pixel.getRed()<255){  
        pixel.setRed(255)  
        pixel.setGreen(255)  
        pixel.setBlue(0)  
    }  
}  
print(img);
```