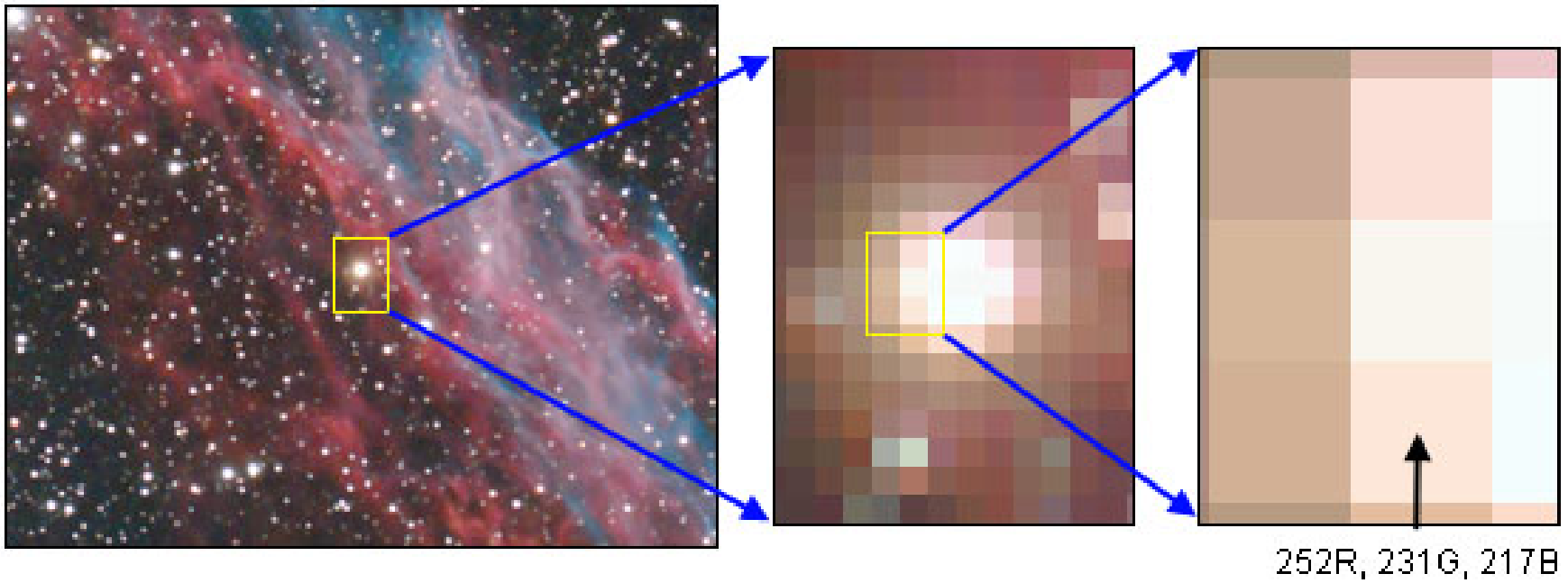
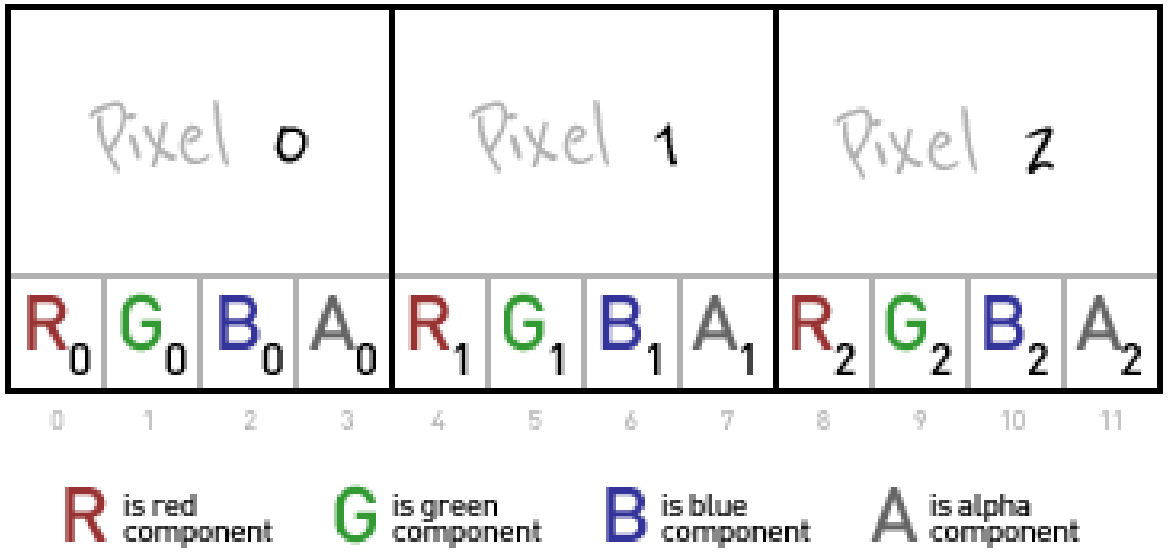
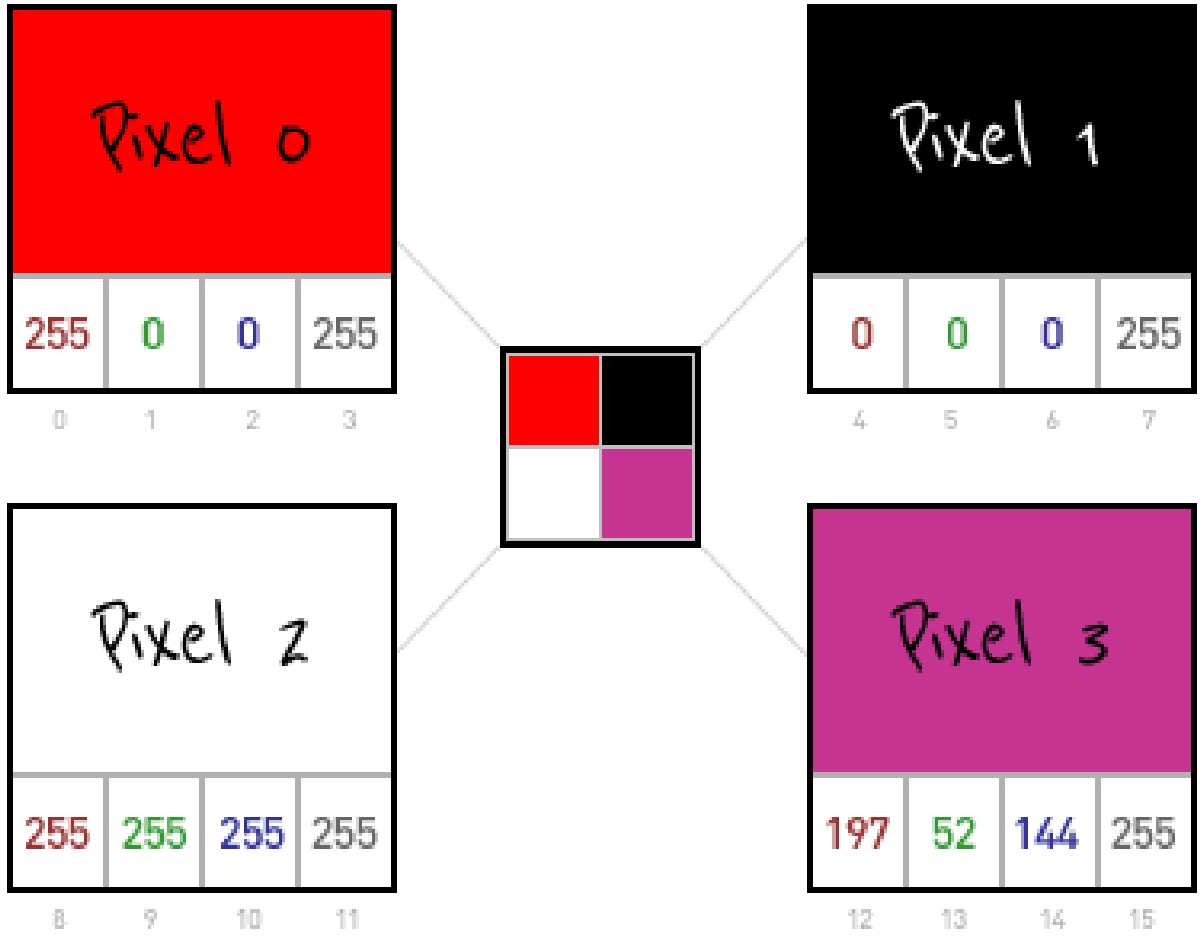
OIM3690 - Web Technologies

Processing Images using JavaScript

What is an *Image*?


252R, 231G, 217B


Pixel 0
Pixel 1
Pixel 2
R0 G0 B0 A0 R1 G1 B1 A1 R2 G2 B2 A2
0 1 2 3 4 5 6 7 8 9 10 11
R is red component
G is green component
B is blue component
A is alpha component


Pixel 0
255 0 0 255
0 1 2 3
Pixel 1
0 0 0 255
4 5 6 7
Pixel 2
255 255 255 255
8 9 10 11
Pixel 3
197 52 144 255
12 13 14 15

`canvas`

- We will be using `<canvas>` to draw/manipulate images via JavaScript.
- To learn more about Canvas:
  - MDN - Canvas Tutorial
  - W3Schools - A few `canvas` examples (via W3Schools)

Creating Color Picker and Image Filters

- Download `lec20-js-image-processing.html` (OIM3690/resources/templates)
- Read through the code and try to understand how it works.
  - How is the pixel data picked?
- Let's create the following image filters
  - Red channel
  - Grayscale
  - Invert/Negative

Questions?