

```
// Declaring a variable of type PImage
```

```
PImage construction;
```

```
int[] lightnessValues;
```

```
void setup() {
```

```
    String[] lines= loadStrings("data.txt");  
    // println("there are " +lines.length + " lines");  
    construction= loadImage(lines[0]);  
    int height = construction.height;  
    int width = construction.width;  
    size(width, height);  
    lightnessValues = int(split(lines[1], ','));  
    // println(lightnessValues);
```

```
}
```

```
void draw() {
```

```
    int loc;  
    int redValue, greenValue, blueValue;  
    Boolean doCalc=true;  
    if (mousePressed && doCalc) {  
        //println("mouse pressed");
```

```
        doCalc=false;
```

```
        for (int ii=0; ii <lightnessValues.length-1; ii++) {
```

```
            image(construction, 0, 0);
```

```
            loadPixels();
```

```
            for (int y=0; y <height; y++)
```

```
                for (int x=0; x<width; x++) {
```

```
                    loc= x+y*width;
```

```
                    redValue= int (red(pixels[loc]));
```

```
                    blueValue= int (blue(pixels[loc]));
```

```
                    greenValue= int (green(pixels[loc]));
```

```
                    int intensity = (20*redValue +40*greenValue +blueValue)/61;
```

```
                    if ( intensity >=lightnessValues[ii] && intensity < lightnessValues
```

```
                    } else {
```

```
                        pixels[loc] = color(0);
```

```
                    }
```

```
    }  
    updatePixels();  
    saveFrame("Range"+lightnessValues[ii]+"to"+lightnessValues[ii+1] + ".jpg");  
  }  
}
```