Section1 - Assignment 2-3 - Video processing OR Color processing: 10% + (4% extra)

Student:

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Mandatory 8% - good quality matting and reasonable background substitution

Code:

```
import processing.video.*;

String video_filename = "1_C_original_MPEG4Format.avi";
String background_filename = "Piero.png";

Movie video;
PImage bg_img;

void setup(){

  size(1500,1080);
  video = new Movie(this, video_filename);
  bg_img = loadImage(background_filename);
  video.loop();

}
```

This assignment want to make the video green screen and add the background image to the video. First, we create two string to collect the file name of video and the file name of background image. Then create the type of Movie and Pimage to modify it. Second, we create the setup to call the video and image to load it up.

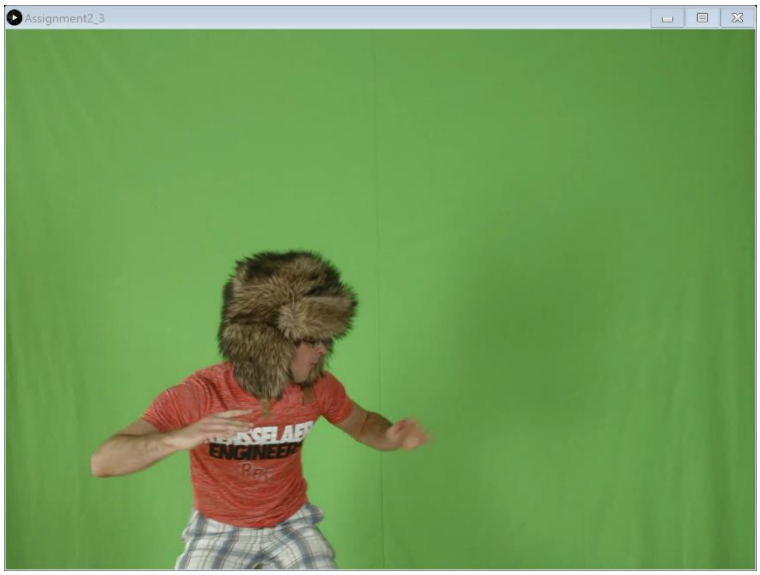
```
void draw() {
  loadPixels();
  bg_img.loadPixels();
  video.loadPixels();
  for (int i = 0; i < video.height; i++) {
    for (int j = 0; j < video.width; j++) {

      int stelle = j+(i*video.width);
      float red_video = red(video.pixels[stelle]);
      float green_video = green(video.pixels[stelle]);
      float blue_video = blue(video.pixels[stelle]);

      if (red_video>40 && red_video<80 && green_video>190 && blue_video>60 && blue_video<90) {
        float red_img = red(bg_img.pixels[stelle]);
        float green_img = green(bg_img.pixels[stelle]);
        float blue_img = blue(bg_img.pixels[stelle]);
        color rgb_color = color(red_img, green_img, blue_img);
        video.set(j, i, rgb_color);
      }
    }
  }
  image(video, 0, 0);
}
```

This method is used to load the pixel of video and background image. First, we create the loop to run it in every pixel and then we create the attributes to collect the color (red, green, blue) of video and image. Next, we create the condition to check the color. If the video color is green pixel (Follow the condition) it will take the background color and set the background color pixel to that video pixel.

Output:



I can only get the logic and take it to the code, so I can't get the output.