CS8 Lab09

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06/02/2015
Basic Information

• Prof. Costanzo’s Website

• My personal CS8 homepage:
    • Download lab slides here
    • Lab08 sample code here
    • Project 3 sample code here
    • Lab09 sample code will be posted at 4pm
TA Evaluation

• Two pages, double-sided
  – Optical-scan sheet
    • choice questions
  – Written comments
    • If there is no written comments, leave the whole page blank (No course and TA name)
  – Anonymous to me
  – CMPSC8
  – Shiliang Tang
Lab09

• Requirements

  – Step 1: copy and read code
    • import cImage
    • create a image called *image*
    • setPixels function, set a square of *image* the same pixel
    • show function, draw *image*

```python
>>> import cImage
>>> create a image called *image*
>>> setPixels function, set a square of *image* the same pixel
>>> show function, draw *image*
```

```python
>>> setPixels(cImage.Pixel(150, 150, 0))
>>> show()
```
Lab09

• Requirements
  – Step 2: change different RGB value for the pixel

  ![Color Gradient Diagram]
  
  - red increase
  - green increase
  - blue increase
  
  red increase  
  blue increase
Lab09

• Requirements
  – Step 3: create interesting image
    • Directly change image variable in step 1
    • Draw what ever you want
    • If you really don’t have any cool idea, try one of the examples in Lab09 instruction step3
    • Basic idea: use nested for loop to go through all the pixels, the RGB value of the pixel is related to its column and row index
• Requirements

  – Step 3: create interesting image

```python
def functionName():
    w = image.getWidth()
    h = image.getHeight()
    for xCoor in range(w):
        for yCoor in range(h):
            red = # some expression related to xCoor and yCoor
            blue = # some expression related to xCoor and yCoor
            green = # some expression related to xCoor and yCoor
            image.setPixel(xCoor,yCoor,cImage.Pixel(red,green,blue))
```

```python
def functionName():
    w = image.getWidth()
    h = image.getHeight()
    for xCoor in range(w):
        for yCoor in range(h):
            if : # some boolean expression related to xCoor and yCoor
                aPixel = cImage.Pixel(255,255,255) # some kind of pixel
            else:
                aPixel = cImage.Pixel(0,0,0) # another kind of pixel
            image.setPixel(xCoor,yCoor,aPixel)
```
Lab09

• Requirements
  – Get your work checked off
    • After Step 3
    • Submit Hw9, get Hw8

• All Labs done!