

CSCI128 Lab 9

Chris Greencorn

Lab 9

1. Write a function that will create a new sound with one half of one sound and then add the two sounds together and then add the second half of the second sound. This is easiest to do if the sounds have the same length.

```
c4 = makeSound(pickAFile())
e4 = makeSound(pickAFile())
lengthC = getLength(c4)
lengthE = getLength(e4) # both samples are the same length
mixpoint = (lengthC)/2
contLength = mixpoint+lengthE
container = makeEmptySound(contLength)

def makeMixedSound(c4,e4):
    for index in range(0, mixpoint):
        sample1 = getSampleValueAt(c4, index)
        setSampleValueAt(container, index, sample1)
    for index in range(mixpoint, length1):
        cSample = getSampleValueAt(c4, index)
        eSample = getSampleValueAt(e4, (index-mixpoint))
        cmajDiad = 0.5 * cSample + 0.5 * eSample
        setSampleValueAt(container, index, cmajDiad)
    for index in range(length1,contLength):
        sample2 = getSampleValueAt(e4, (index-mixpoint))
        setSampleValueAt(container, index, sample2)

play(container)
```

2. Blend in some words over some music. Start with the music at 75% and the words at 25% and gradually make the words 75% and the music 25%.

```
setMediaPath('/Users/chrisgreencorn/Desktop/lab 9')
file1 = makeSound(pickAFile())
file2 = makeSound(pickAFile())
container = makeEmptySoundBySeconds(60)
sr = getSamplingRate(container)

def makeFade():
    ## ITERATE
    for index in range(0, getLength(container)):
        ## DEFINE FADE
        v1 = 0.25 # INITIAL VOLUME OF FILE 1
        if v1 < 0.75: # MAX VOLUME
            v1 = v1 + (index*(0.1/sr)) # FADE GRADIENT
        v2 = 0.75 # INITIAL VOLUME of FILE 2
        if v2 > 0.25: # MIN VOLUME
```

```
    v2 = v2 - (index*(0.05/sr)) # FADE GRADIENT
## BLEND
wordsSample = getSampleValueAt(file1, index)
musicSample = getSampleValueAt(file2, index)
sampleBlend = wordsSample*v1 + musicSample*v2
setSampleValueAt(container, index, sampleBlend)

play(container)
```