CSI 31 LECTURE NOTES (Ojakian)

Topic 9: Classes - More Details

OUTLINE
(Goldwasser/Letscher ch 6)

1. Details on Classes.

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1. One method referencing another method
   Use BCC Student for example.
2. Various
   (a) Variables outside the class or function
   (b) Local variables inside a method
   (c) Internal data of a class
3. Functions changing internal data
   (a) Issue of external function versus internal method
   Example: Do Reset for Die class - set back to 1; inside and outside.
   (b) References as opposed to copies
4. Objects within Objects ...
   (a) Example: A list of objects. Like a list of dice or list of students.
   (b) Write a function which takes a list of students and returns their average number of credits.
   (c) Write a function which takes a list of students and returns the numbrer of graduated students.
   (d) Write a function which takes a list of students, does not return anything, but changes each student so its name is lower case.
   That is good for standardization (so can check if two people have the same name). But what is better design? (what should the class handle and what should outside functions handle)
   (e) Create a class called BCC Class for a group of students?

5. More Problems

(a) Goldwasser/Letscher chap 6 - exercise 6.2
After fixing it, create some Radios and predict output.

(b) From Zelle - what does it print?

```
class Bozo:
    def __ init __ (self, value):
        print("Creating a Bozo from: ", value)
        self.value = 2 * value

    def clown(self, x):
        print("Clowning: ", x)
        print(x * self.value)
        return x + self.value

def main():
    print("Clowning around now.")
    c1 = Bozo(3)
    c2 = Bozo(4)
    print c1.clown(3)
    print c2.clown(c1.clown(2))

main()
```