**CS160 Computer Science I**

**Lab 3**

**Fall 2014**

**Objectives**

Work with ‘IF’ Statements

Work with basic input and output commands.

Work with basic math functions.

Work with the format function.

Please comment your code and make sure everything is in one file called **lab#\_yourinitials.py (example: Lab3\_AC.py)**

**Part 1:** What I need is just the Area!!!

Make a program that follows these step-by-step instructions

Make sure to show (print) the computation and the result at each step

1. Prompt the user to pick one of the three:
   1. Area of a Circle
   2. Area of a Square
   3. Area of a Triangle

2. If user picks Area of a Circle (use formula Area = pi\*r\*r)

3. If user picks Area of a Square (use formula Area = side\*side)

4. If user picks Area of a Triangle (use formula Area = ½\*h\*b)

You would have to prompt the user for more details, like r, side, h and b. You could assume pi to be 3.14 as a standard value.

Do not worry about showing the computation in the output. The result should match the below mentioned sample input/output.

**Sample Input/output**

Please pick one:

1. Area of Circle
2. Area of Square
3. Area of Triangle

If I enter 1, the program should ask me to enter a value for the radius (r).

Based, on the value provided, display result as shown below.

The Area for the circle with radius (r) is 5.42(dummy value)

**Part 2:**Addition of all digits

Write some code which will prompt the user to enter a 5 digit number (number should be greater than 9999 and smaller than or equal 99999).

Then perform the addition of the all digits.

Example :

If I enter 98765, then

Answer = 9+8+7+6+5 = 35

Here you will need to use five if blocks with following condition

ans=n%10 and n=n//10

Lets assume, n = 98765

ans=n%10; ans=98765%10; ans=5

n=n//10; n=98765//10; n= 9876

Likewise you will get all separate digits to perform addition.

**Sample Input/output**

Enter a value ranging from 10000 – 99999 : 98765

The addition of this number is: 35

You could show the computation if you want.

**Part 3:**ASCII Values!!!!

Write some code which will prompt the user to enter a letter ranging from a to z. It could be both lower case and upper case letter. Then convert letter to ASCII value and print.

**Sample Input/output**

Enter the letter : H

ASCII value : 72

**Part 4:**Final result

Calculate the final result by multiplying the answers of the all parts.

Result = part1\*part2\*part3

If result is between 0 and 5000, print message as "Small values"

If result is between 5001 and 50,000, print message as "Medium values"

If result is more than 50,001, print message as "Large values".

**Sample Input/output**

Result = 50.24 \* 120 \* 72 = 434073.6

Large values

* 1. *Don't forget the doc string comment section on the top of your file. As always, if something doesn't make sense in the write up or you get stuck, please don't hesitate to ask me.*