­­­CSE 101L/Spring 2009

Lab 6 – Looping in Python

Exercises

**Problem 1**

During the last two labs, you wrote a number guessing game. This week, you’re writing a new one!

On Blackboard is a file, game.py. Take this file and add a loop to it. As with last time, the user should be given up to three guesses to get the correct number.

If they guess the number on the first try, they should not be asked for second or third guesses. Similarly, if they get it right on the second try, they should not get a third attempt.

**Problem 2**

Write a program that asks a user for line of text. If they enter quit or QUIT, the program terminates. If they entered anything else, prompt again for another value.

Example run:

rnelson:grad/rnelson> python infinite.py

Enter text: hello

Enter text: how

Enter text: are

Enter text: you

Enter text: quit

Enter text: QuIt

Enter text: quit

rnelson:grad/rnelson>

**Problem 3**

Write a program that prints out a triangle! The correct output will look something like the following:

rnelson:grad/rnelson> python tree.py 1

T

rnelson:grad/rnelson> python tree.py 2

T

TT

rnelson:grad/rnelson> python tree.py 5

T

TT

TTT

TTTT

TTTTT

rnelson:grad/rnelson>

As with problem 1, I have included a program in Blackboard, tree.py. You may work from this.

To write this program, you will need to use a new function: sys.stdout.write. This function allows you to write text to the screen without having a newline at the end. This is used so you can print out both the correct number of spaces and the correct number of Ts without having the text jump down to the next line each time.

For example, to print a space, simply use sys.stdout.write(‘ ‘).

At the end of each line (when you’re done printing Ts), you will need a newline to start the next text down a line. You can force a newline with the following:

sys.stdout.write(‘\n’)

Note that the ‘ marks in both of those are apostrophes (“ without the shift key). Word used Smart Quotes to make them what it thought I wanted.

**Names**

Please use the following names for your files:

Problem 1: game.py

Problem 2: infinite.py

Problem 3: tree.py