

CS 595: Assignment #1

Due on Thursday, September 11, 2014

Dr. Nelson 4:20pm

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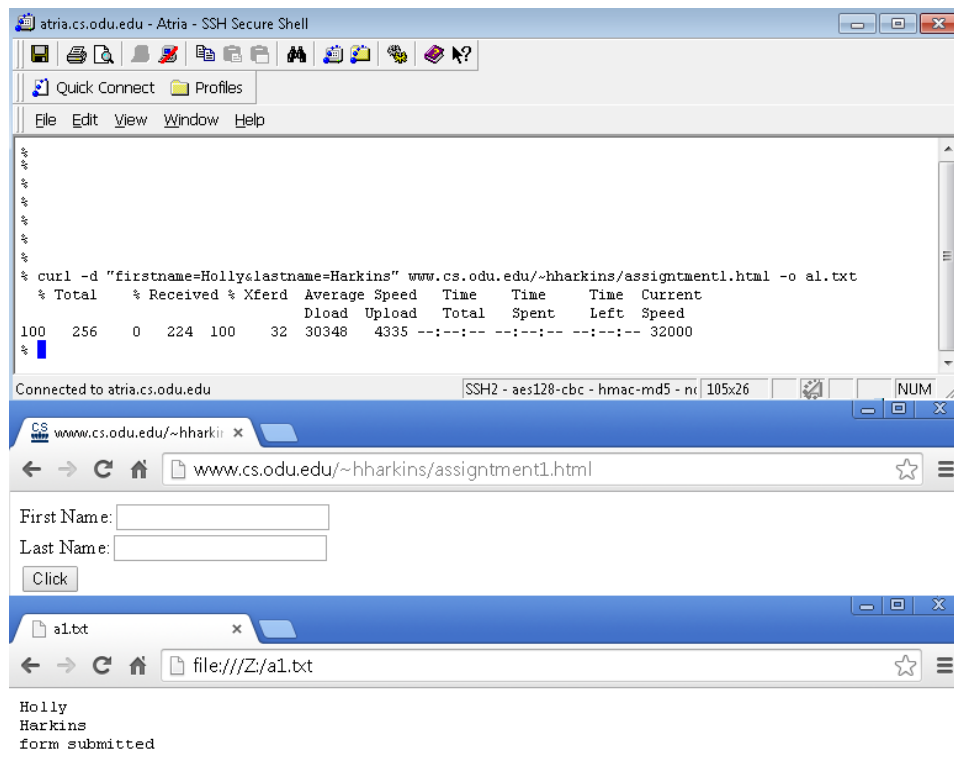


Figure 1: Command Line, Site, File Output

Problem 1

Demonstrate that you know how to use "curl" well enough to correctly POST data to a form. Show that the HTML response that is returned is "correct". That is, the server should take the arguments you POSTed and build a response accordingly. Save the HTML response to a file and then view that file in a browser and take a screen shot.

See Figure 1

Problem 2

Write a Python program that: takes one argument, like "Old Dominion" or "Virginia Tech" takes another argument specified in seconds (e.g., "60" for one minute). takes a URI as a third argument: dereferences the URI, finds the game corresponding to the team argument, prints out the current score (e.g., "Old Dominion 27, East Carolina 17"), sleeps for the specified seconds, and then repeats (until control-C is hit).

Listing 1: this is a caption

```
from bs4 import BeautifulSoup
import time
import urllib2
import sys

##Accept 3 arguments from the command line
cteam = sys.argv[1]
sleep = sys.argv[2]
URL = sys.argv[3]
```

```
10 while 1:
    hometeam = ""
    awayteam = ""
    homeScore = 0
15    awayScore = 0

    ##Modified from Python Examples from Hany presentation
    yahooFile = urllib2.urlopen(URL)
    yahooHtml = yahooFile.read()
20    yahooFile = close()
    soup = BeautifulSoup (yahooHtml)

    ##Finds all <tr> table row tags and stores them in a list
    trTagList = yahooHtml.find_all('tr')

25    ##Searches through for the college team chosen
    for i in range(len(trTagList)):
        if trTagList[i].find(text=cteam):
            Lteam = trTagList[i].select("em")
30            awayteam = Lteam[0].text
            hometeam = Lteam[1].text

            ##Grabs Scores
            try:
35                homeScore = trTagList[i].select(".home")[1].get_text()
                awayScore = trTagList[i].select(".away")[1].get_text()

            ##print final Output
            print awayteam + " " + str(awayScore) + ", " + hometeam + " " + str(homeScore)
40

    ##Sleep timer
    time.sleep(float(sleep))
```

Problem 3

Bow-tie graph

For the graph, give the values for:

IN: M

SCC: A, B, C, G

OUT: D, H

Tendrils: I, K, J, L

Tubes: N

Disconnected: E, F

References:

<http://www.google.com>,

<http://www.crummy.com/software/BeautifulSoup/bs4/doc/2>,

<http://stackoverflow.com/questions/17126686/extracting-data-from-html-with-python>,

<http://stackoverflow.com/questions/16441354/how-do-i-get-the-content-between-two-xml-tags-in-python>,

<http://stackoverflow.com/questions/8486922/python-and-htmlparser-handle-data-how-to-get-data-from-tags>

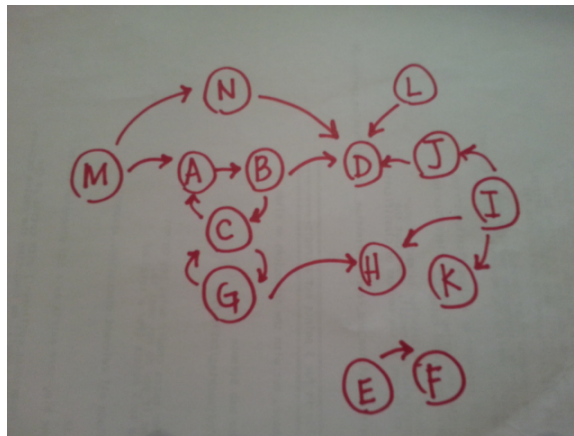


Figure 2: Graph222