Assignment One

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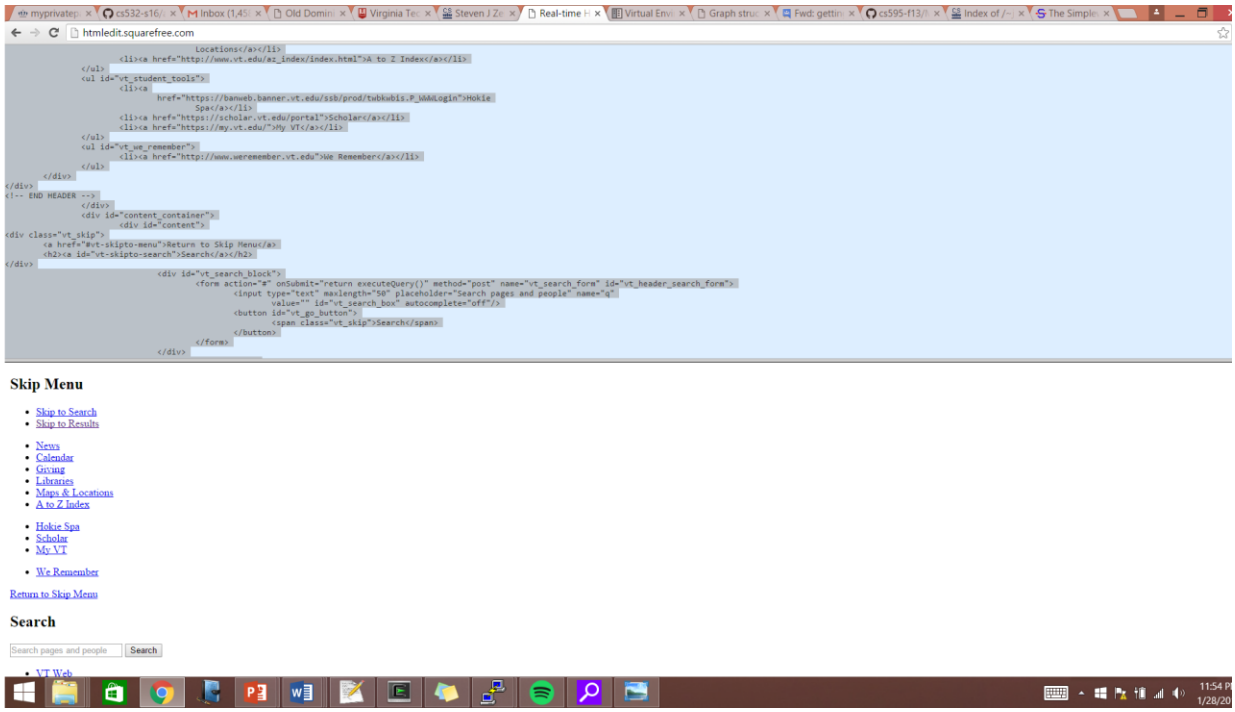
CS432 – Spring 2016

Question One:

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.



Question Two:

Write a Python program that

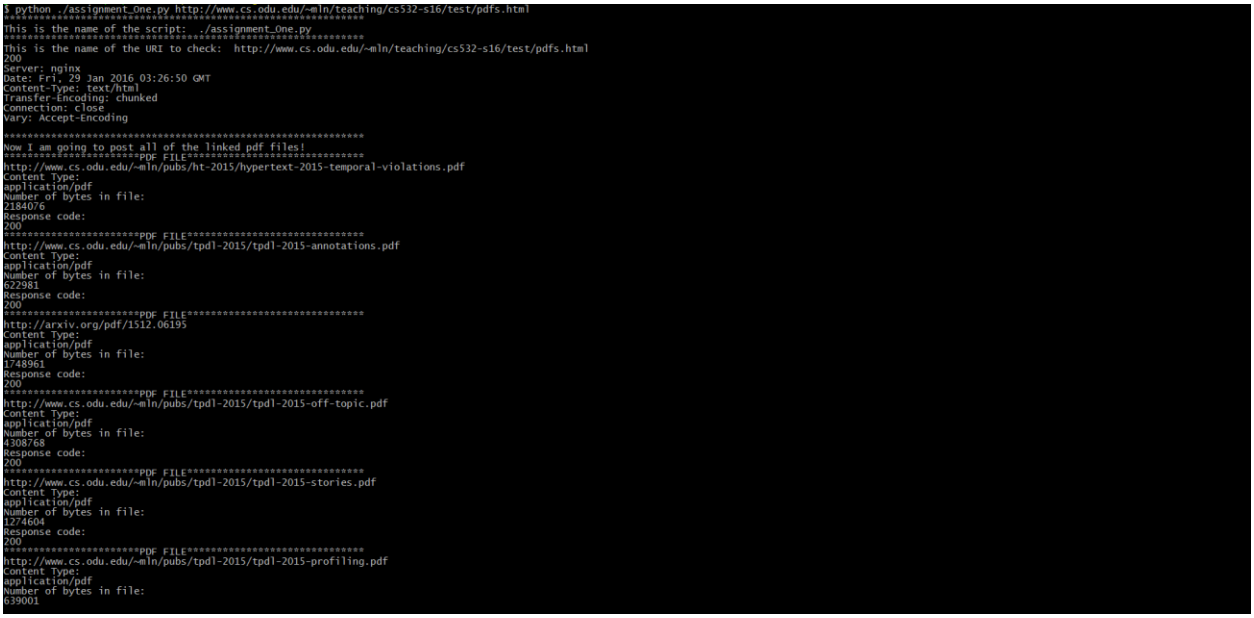
1. takes as a command line argument a web page

2. extracts all the links from the page

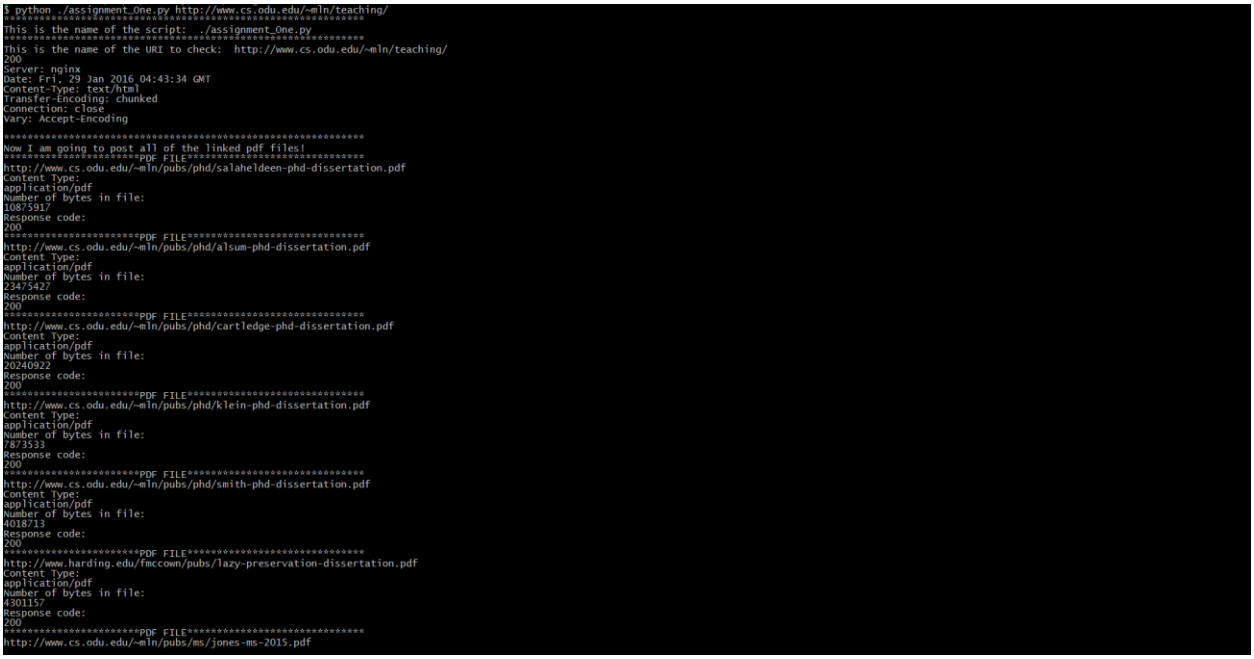
3. lists all the links that result in PDF files, and prints out the bytes for each of the links. (note: be sure to follow all the redirects until the link terminates with a "200 OK".)

4. show that the program works on 3 different URIs, one of which needs to be:

   http://www.cs.odu.edu/~mln/teaching/cs532-s16/test/pdfs.html



For the first file included I used the base test case. As shown, only the pdf files were chosen along with the formatting required for each specific value.



For my second test case, I used a more robust page. The regular Michael Nelson ODU page sufficed for this.

For my last case, I used Thomas Kennedy's CS page on the website. I chose this case because there were no PDF links on that page, allowing the user to see that there will not always be PDF's on the page.

Question Three:

Consider the "bow-tie" graph in the Broder et al. paper (fig 9):

http://www9.org/w9cdrom/160/160.html

Now consider the following graph:

A --> B

B --> C

C --> D

C --> A

C --> G

E --> F

G --> C

G --> H

I --> H

I --> J

I --> K

J --> D

L --> D

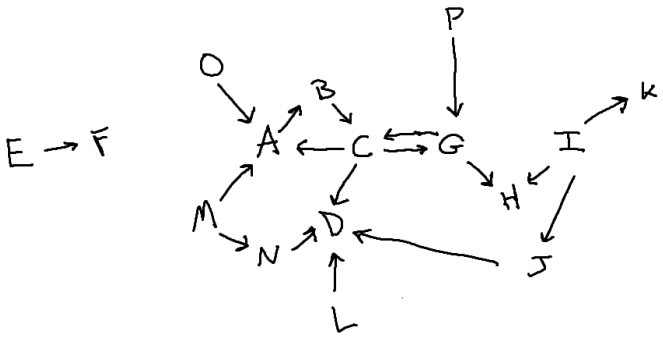
M --> A

M --> N

N --> D

O --> A

P --> G



IN: I, M
SCC: G, C, A, B
Out: D, H
Tendrils: K, P, O, L
Tubes: N, J
Disconnected: E, F