

## **CS 112 Assignment 12**

Submit your finished code to the Dropbox. You will need to pass off the assignments with the TA or tutor during their office hours (their information is in the CS 112 Course Information section of the Table of Contents), or the instructor in class. Follow the formatting guide which is also found in the CS 112 Course Information section.

Read the instructions carefully. Make sure your output matches the example run.

### **Objectives:**

In this assignment you will learn how to do the following:

- Install a Third-Party Module using pip
- Use the requests library
- Grab and save a web page

### **Install the Requests module using PIP**

For this assignment you will need to install a third-party module using pip. Follow the instructions for installing third party modules found in [Appendix A](#) of the book or the instructions for installing a module from the Python Software Foundation at <https://docs.python.org/3/installing/>.

Pip is run from the command console in Windows. To find the command console, click the Windows Start button and look in either Accessories (Windows 7) or Windows System (Windows 10). To run Command Prompt as an administrator, right click on the Command Prompt icon and choose 'run as administrator'. Inside the Command window, you will need to change the directory to where pip is located. Type cd and then the path where pip is located.

(usually C:\Users\UserName\AppData\Local\Programs\Python\Python35-32\Scripts)

From there, simply type

```
>pip install requests
```

## Program: Save Web Page as File

Write a program that asks the user to enter a URL and a file name where the web page will be stored on your hard drive.

Have your main() function call a function that you write called validateURL(), passing the URL the user entered as an argument and return the validated URL. Your validateURL() function will download the web page into a Response object and handle the following problems:

- The user does not specify either 'http://' or 'https://'
- The website does not exist

Have your main() function call another function that you write called saveURLFile(), passing the Response object and the file name the user entered. Your saveURLFile() function will save the web page stored in the Response object to the file named by the user and handle the following problem:

- The user does not specify '.html' as the suffix of the file name.

Keep the program running in an infinite loop until the user indicates they want to quit by entering nothing at the prompt for the URL.

### Example Run

This program will open a web page of your choice and save it to a file in the current directory.

Please enter a URL:xyzzy  
Invalid URL. Please try again.

Please enter a URL:www.google.com  
Please enter a file name:mygoogle  
mygoogle.html has been saved.

Please enter a URL:www.yahoo.com  
Please enter a file name:myyahoo  
myyahoo.html has been saved.

Please enter a URL:  
>>>