SWINBURNE UNIVERSITY OF TECHNOLOGY

TNE20003 – Internet and Cybersecurity for Engineering Applications

Portfolio Task – Lab 7 Credit Task

Aims:

- To develop a network client program to connect to a remote system and download data/information. Then to parse that information to extract useful data

Preparation:

- View "Internet Enabled Programming"

Due Date:

- Your Task will be assessed via an online quiz and a quick demonstration. You must score the required minimum to pass the test. You will be allowed a number of attempts to pass the test at the grade level you attempt. You are encouraged to complete the test at the end of the lab but if you do not, you must complete it before your next lab class

Task 1

Take your completed PASS task and ensure that it is functioning as expected. We will now build onto that code by extracting further useful data.

You will be extending your program from the Pass task to parse the returned data and extract relevant sub-data. You will need to examine the HTTP 1.0 protocol to get an understanding of how a HTTP response is formatted so you can write code to parse the response from downloaded data.

Task 2

You will need to develop a Python program that extends the pass task to extract and display the following information after downloading the landing page at http://www.google.com:

Split the returned data into the HTTP response, the header values, and the actual HTML content. Obviously one way to do this is to choose a certain parameter that separates the relevant sections and then look for that parameter.

From the response, extract the response code and response message individually, then neatly format and display these values

From the response extract the header content (parameters and values) and store them separately in a Python dictionary. Then format the dictionary for display to the screen. Basically, we want to take the data and re-organise it in order to display it better and make so that it is more visually pleasing to the eye.

If the HTTP response is NOT 200, display an error message, otherwise print the HTML contents to screen after inserting at least 5 empty lines.

An example can be seen below: