

## 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:

- All tasks in this lab are to be completed and demonstrated to your Lab instructor preferably during or at the end of the current lab, but if you do not complete the tasks you may demonstrate it at the beginning of your next lab class. To do this you must upload all documents up to Canvas to ensure that you complete and hand the task in on time. This submission is to be no later 9pm on the day of the next lab. For example if your lab is on the 18/9, then final submission is no later than 9pm on the 25/9.

## 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
- 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
- If the HTTP response is NOT 200, display an error message, otherwise print the HTML contents to screen

## Assessment:

As a Credit task, not completing this task will result in the maximum achievable base grade for your Portfolio being restricted.

To pass this task, you must demonstrate the functioning program to your Lab Supervisor. Your supervisor will ask you some questions about how the code functions to validate that it is your work. Upon successful demonstration and answering questions, this task will be marked as complete