IT567 Assignment 3 – Port Scanner

Description

Create a port scanner to scan either a specified set of TCP or UDP ports (or both) in a language of your choice. If you are unfamiliar with a suitable programming language, Python with the Scapy language is recommended,

Requirements

1 point = 1 percent. Standard IT567 Grading Scale (75 = A)

At a minimum your tool should (40 points):

1. Allow command-line switches to specify a host and port.
2. Present a simple response to the user.

Additional points are provided depending on the comprehensiveness of the feature. For example:

- Allow more than one host to be scanned – 10 points maximum.
    - Reading a text file of host IP's or reading a range from the command line – 5 points.
        - Doing both +2 points
    - Allowing different ways to specify hosts (subnet mask and range) – 5 points.
- Allow multiple ports to be specified – 10 points maximum.
- Use of more than one protocol (TCP or UDP is assumed within the base 40 points)
    - ICMP 5 points
    - TCP or UDP (to complement the one already provided) – 10 points
- Traceroute – Max 5 points
- User experience results – eg. An HTML or PDF report:
    - Max 10 points
- GUI or Web management of tool
    - Max 10 points
- Other ideas or concepts not mentioned
    - Max 20 points

Submission

Your code must be submitted to both github and learningsuite.

- Create a github account if you do not already have one. Submit your code to github with a readme file explaining its use. Ensure your code is adequately commented.
- Submit a .txt file of your code to learningsuite.
- Your code functionality will be tested as part of the lab. Source code must be provided. (Compiled binaries are not acceptable). Your code will be inspected for plagiarism.