

CSC 4220/6220

Spring 2017

Assignment 5

Due Date: Monday, April 24th at 11:59 pm

Late Deadline: Thursday, April 27 at 11:59 pm

Scapy Lab

Directions: Attach screenshots where appropriate to show the output or execution of code.

Q1. A normal TCP handshake contains three packets, a SYN packet which is sent from the client to the server, on which the server replies with a SYN,ACK packet, after which the client on its turn replies with an ACK packet.

- a) Create your own packet in Scapy for this TCP handshake.
- b) Write a Python script making use of Scapy for this TCP handshake

Q2.

Implement traceroute, send out a UDP packet with `ttl = i` for `i=1,2,3,...`. Look at the reply packet and check if it is a “Time ran out” or “That port doesn’t exist” error message. Display a message indicating how many hops away from the destination. Attach a screenshot of the Scapy output. Use `hostname = "google.com"`

(Additional question for Graduate Students. Answer earlier questions Q1 and Q2 also)

Q3.

Implement `tcptraceroute` for a TCP packet using Python. You may use the assumptions as needed as in Q2. Attach a screenshot of the Scapy output.