

CS 485/ECE 440/CS 585 Fall 2013 Homework 2

Due 11:59pm on Friday, 30 August 2013

Please submit your answers for homework 1 in the body of an email with no attachments to "unmnetworkingclass@gmail.com". Do not submit your homework to any other address.

You are expected to do your own work. You may discuss this homework assignment with your classmates at a high level only. For example, you can talk about features of Wireshark, protocols, and even give hints about how to find things in this particular pcap file. But your hints to your classmates that are specific to this pcap file should only be hints. If a student represents ideas to me that are based on someone else's analysis of the pcap file, rather than their own, then that is considered cheating and the student will get a 0 on this assignment (plus I might pursue further action).

You should turn in six sentences maximum. The first paragraph should have three sentences maximum, and should just give an overview of what's in the pcap file (*e.g.*, what did I do on the Internet? What basically happened, at a high level of abstraction?).

The second paragraph should be highly technically detailed and should tell me the most interesting thing that you found. For example, "Some of the packets had an anomalous field X in the TCP header, specifically ..." or whatever you found. The second paragraph should also have a maximum of three sentences.

The purpose of this assignment is to make sure everyone is familiar with the layers of the OSI Model (see pages 52-53 of your book). By the end of this assignment, make sure you know the following terminology:

datagram, packet, frame, socket, Ethernet, IP, TCP, UDP, DNS, HTTP, HTTPS, SSL/TLS, application layer, transport layer, network layer, link layer, physical layer

You should also make sure that you're familiar with all the fields in Ethernet, IP, TCP, and UDP headers and what they are for.

You should also understand the basics of the HTTP and DNS protocols.

For a big hint about what's going on in this pcap file, Google "Ignoring the Great Firewall of China".