Assignment 3
(Full Score: 100 points)
(**Due in class, Tuesday, 3/8/2011**)

Your name:	Score:

Part I: TCP Congestion Control Analysis (continued from Lab 4_TCP's) (50 points)—the following screenshot was taken from Lab4's TCP trace file "tcp-ethereal-trace-1"—you may open the file via Wireshark for more visibility!

No. ▲	Time	Source	Destination	Protocol	Info
1	0.000000	192.168.1.102	128.119.245.12	TCP	health-polling > http [SYN] Seq=0 Win=16384 Len=0 MSS=1460 SACK_PERM=1
2	0.023172	128.119.245.12	192.168.1.102	TCP	http > health-polling [SYN, ACK] Seq=0 Ack=1 Win=5840 Len=0 MSS=1460 SACK_
3	0.023265	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=1 Ack=1 Win=17520 Len=0
4	0.026477	192.168.1.102	128.119.245.12	TCP	health-polling > http [PSH, ACK] Seq=1 Ack=1 Win=17520 Len=565
5	0.041737	192.168.1.102	128.119.245.12	TCP	health-polling > http [PSH, ACK] Seq=566 Ack=1 Win=17520 Len=1460
6	0.053937	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=566 Win=6780 Len=0
7	0.054026	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=2026 Ack=1 Win=17520 Len=1460
8	0.054690	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=3486 Ack=1 Win=17520 Len=1460
9	0.077294	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=2026 Win=8760 Len=0
10	0.077405	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=4946 Ack=1 Win=17520 Len=1460
11	0.078157	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=6406 Ack=1 Win=17520 Len=1460
12	0.124085	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=3486 Win=11680 Len=0
13	0.124185	192.168.1.102	128.119.245.12	TCP	health-polling > http [PSH, ACK] Seq=7866 Ack=1 Win=17520 Len=1147
14	0.169118	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=4946 Win=14600 Len=0
15	0.217299	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=6406 Win=17520 Len=0
16	0.267802	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=7866 Win=20440 Len=0
17	0.304807	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=9013 Win=23360 Len=0
18	0.305040	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=9013 Ack=1 Win=17520 Len=1460
19	0.305813	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=10473 Ack=1 Win=17520 Len=1460
20	0.306692	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=11933 Ack=1 Win=17520 Len=1460
21	0.307571	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=13393 Ack=1 Win=17520 Len=1460
22	0.308699	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=14853 Ack=1 Win=17520 Len=1460
23	0.309553	192.168.1.102	128.119.245.12	TCP	health-polling > http [PSH, ACK] Seq=16313 Ack=1 Win=17520 Len=892
24	0.356437	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=10473 Win=26280 Len=0
25	0.400164	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=11933 Win=29200 Len=0
26	0.448613	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=13393 Win=32120 Len=0
27	0.500029	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=14853 Win=35040 Len=0
28	0.545052	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=16313 Win=37960 Len=0
29	0.576417	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=17205 Win=37960 Len=0
30	0.576671	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=17205 Ack=1 Win=17520 Len=1460
31	0.577385	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=18665 Ack=1 Win=17520 Len=1460
32	0.578329	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=20125 Ack=1 Win=17520 Len=1460
33	0.579195	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=21585 Ack=1 Win=17520 Len=1460
34	0.580149	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=23045 Ack=1 Win=17520 Len=1460
35	0.581074	192.168.1.102	128.119.245.12	TCP	health-polling > http [PSH, ACK] Seq=24505 Ack=1 Win=17520 Len=892
36	0.626496	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=18665 Win=40880 Len=0
37	0.672796	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=20125 Win=43800 Len=0
38	0.730684	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=21585 Win=46720 Len=0
39	0.772990	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=23045 Win=49640 Len=0
40	0.820622	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=24505 Win=52560 Len=0
41	0.853186	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=25397 Win=52560 Len=0
42	0.853405	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=25397 Ack=1 Win=17520 Len=1460
43	0.854076	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=26857 Ack=1 Win=17520 Len=1460
44	0.855036	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=28317 Ack=1 Win=17520 Len=1460
45	0.855878	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=29777 Ack=1 Win=17520 Len=1460
46	0.856802	192.168.1.102	128.119.245.12	TCP	health-polling > http [ACK] Seq=31237 Ack=1 Win=17520 Len=1460
47	0.857683	192.168.1.102	128.119.245.12	TCP	health-polling > http [PSH, ACK] Seq=32697 Ack=1 Win=17520 Len=892
48	0.899423	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=26857 Win=55480 Len=0
49	0.949545	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=28317 Win=58400 Len=0
50	0.994715	128.119.245.12	192.168.1.102	TCP	http > health-polling [ACK] Seq=1 Ack=29777 Win=61320 Len=0

Please fill out the following table based on the above screen:

Seg. #	Type (Data/ACK)	Seq.#	ACKed Seq.#	Outstanding Data
4	Data	1	na	565
5	Data	566	na	2025
6	ACK	na	566	
7	Data	2026	na	
8				
9				
10				
11				
12				
13				
14				
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Part II: Study Guide Questions (50 points)

- Go to the course website's Supplementary Materials where you open Study Guide for Chapter 3 (you will need courseweb username and password to access it) at http://cs.salemstate.edu/~b_yi/2011Spring/CSC315A/resources/studyGuide/Chapter03_SG.pdf
- Read section "Most Important Ideas and Concepts from Chapter 3" (no submissions required).
- Provide *very brief answers* for the following Review Questions (the question text
  - **1, 2, 3, 4, 5, 6.**