CS348 Computer Networks
Lab Excercises 2

Indian Institute of Technology, Patna

January 18, 2018

Instructions: This assignment is in continuation to Assignment 1. But you have to submit the solutions in a different tgz file with name assign2.tgz. The submission date is 25.01.2018

Consider the packet switching case of the problem given in Assignment 1. In this assignment rather than using a constant packet generation rate, we will now use a Poisson distribution and observe its effects. We now assume that the packet generation at each source i follows a Poisson distribution with a given rate λ_i, which is equivalent to the fact that the generation time between two consecutive packets at each source follows an exponential distribution. You are now supposed to show the following results:

1. Assuming λ_i to be same for each source, plot the average delay for each packet with respect to λ
2. Assuming λ_i to be same for each source, plot the average queue size with respect to λ
3. Assuming unique λ_i values for each source, using a box plot show the average delay for each packet for each source.
4. Assuming unique λ_i values for each source, using a box plot show the average packet drop for each source.