Section 7: Project 3 Intro

CSE 461 Computer Networks
Quiz 3 is on Monday May 17
  The topics are Application Layer and Network Security
Homework 4 is due on May 25
Project 3 is released! It is due on June 2
Project 3: Bufferbloat
What is Bufferbloat?

From Wikipedia, “bufferbloat is a cause of high latency in packet-switched networks caused by excess buffering of packets”
Project 3

- We will simulate bufferbloat on our mininet network.
- Part 1: Setup
  - The same vagrant VM for project 2
  - We’ll be using python3
Project 3

- Part 2: TCP Reno
  - Modify run.sh and bufferbloat.py to set up the network and do the measurement on two queue length: q=20 and q=100

- Part 3: TCP BBR
  - Modify Part 2 to run the experiment using BBR
Starter Code

- **run.sh**
  - Run the entire experiment
    - Run bufferbloat.py on q=20 and q=100
    - Generate latency and queue length graphs

- **bufferbloat.py**
  - Complete the TODOs
    - Setup the mininet topology and the experiment
    - Write shell commands to do the measurements
Note

- **Sudo mn -c** to restart mininet
- Run **CLI()** in python to enter an interactive shell. This will be useful for debugging/ testing commands to run in h1/h2.
- Make sure that your curl command receives a valid response from the server before you use its time measurement
Deliverables

- A zip file of
  - Final Code
  - README
  - 8 Plots
Example Plots (TCP CWND)

Q = 20

Q = 100