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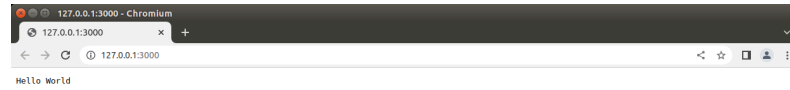16 May 2025

Questions

Part 1 - Basic Web Server

1. Is the web server considered local or remote? What is the difference between each?
   a. Based on my current knowledge of web servers, this is considered a local web server because the URL is my local machine ip address. The difference between these types of servers is that I'm only able to run the local one on my specific IP Address compared to the remote where it can operate anywhere.
2. Why Were we provided with a number prefix (127.0.0.1) in our URL?
   a. We were provided a number prefix so that we know that the web server only works on our local machines since it doesn't have a remote domain.

Part 2 - WebRTC Server

1. What does bitrate represent in terms of video-streaming? How is it relevant here?
   a. The bitrate in terms of video-streaming represents the quality of the video whether it's blurry and pixelated or crystal clear. The bitrate is relevant in the WebRTC server because it shows how whenever there's a low bitrate, there's going to be inaccurate tracking, lag, and distortion of objects when they're moving quick.
2. How many packets were received and dropped? What does this statistic represent?
   a. There was around 286000-330000 packages received and 67 packages lost. This statistic represents how many packs of data the stream is receiving from the jetson-nano in order to make the stream fluid while the lost packages shows the attempted packages to send to the browser but never got to it. This usually leads to slower stream, loss in quality, and distortion.
3. Were you able to receive a stable framerate of 30 fps? Describe any possible latency that could affect this parameter.
   a. I was not able to maintain 30fps and this could be due to the jetson-nano overworking its load, the amount of objects I had in the stream that made it difficult to detect me, and wifi latency.
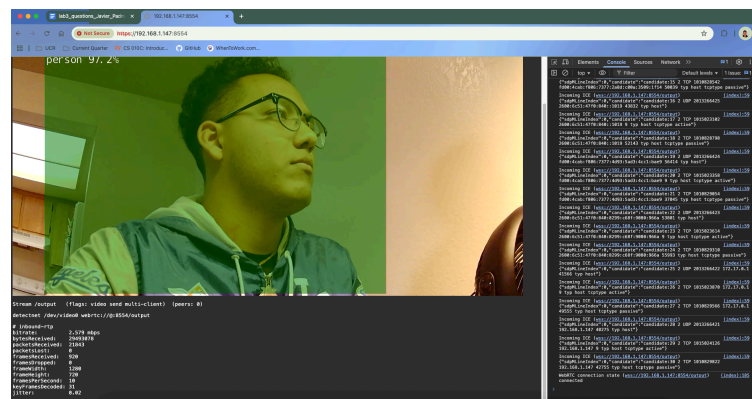
Screenshots:

1. Virtual Server

   a.

2. WebRTC Stream with Console

   a.