You can upload a video that is ready to go to the internet in one go and then watch it online. A live video is also uploaded, but this is a continuing process during the broadcast. So it is necessary that, during the entire broadcast, the video footage is being sent in the right format file to the streaming server which then forwards it to the online video player where ultimately the stream can be viewed.

Working of youtube:

1. capture video using mobile/camera
2. upload video to the youtube server
3. watch video by accessing the youtube server

Here the video is hosted on multiple machines ones video is uploaded, which help in fault tolerance and we get to stream the video in high quality. Here the video is a static data as it is stored on the sever. So streaming a static data is easy help the of RAID.

Working of live stream:

1. Everything is recorded live and on location and will be encoded in the right quality on the spot and uploaded to the streaming server.
2. A streaming server enables footage to be quickly delivered to online viewers globally in the right quality. This makes it possible for multiple people to watch simultaneously.
3. The online video player is connected to the streaming server and plays the live broadcast worldwide to viewers in the right quality on desktop or mobile and can be embedded in any website.

Here the video is access from the streaming sever which means we are accessing the dynamic data which is reduced in quality before displaying to the user worldwide. The quality is reduced which means the size of video is reduced and faster tranfer of video is done.

Video streaming using GSM is good when we are travelling or we don't have a wifi connection. But issues with GSM are the range, limited data to use. Assuming the data is unlimited but the range can be extended to a certain limit. Low signal means poor data rate and which will not help us to watch the video in 720p. Other reason is the quality reduced during live streaming. Both issues combined results un very bad output.

There are GSM modules availalble for the Nvidia jetson nano but Nvidia officially don't recommend using them and there is no information or manual for connecting the GSM module to the kit as of now.

We would also like to request you that we should start working on the software part as soon as possible. We would be having lab submissions and ESE exam preparations next month. So we have only this month to complete the work. The machine learning model will also need data that is not being tagged yet. We also need to plug in our software in the Jetson Nano's API to make use of those GPU cores. In short we have lots of software related work to do and we should start as soon as possible and try to finish the software work by this month.