

HW2 Report

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● *Execute*

There are three python program in the “code” directory (**Version: 2.7.10**)

■ sender.py

We need to enter “filename” as a input in this program. Then, the program will send data to agent and complete the transmission.

■ receiver.py

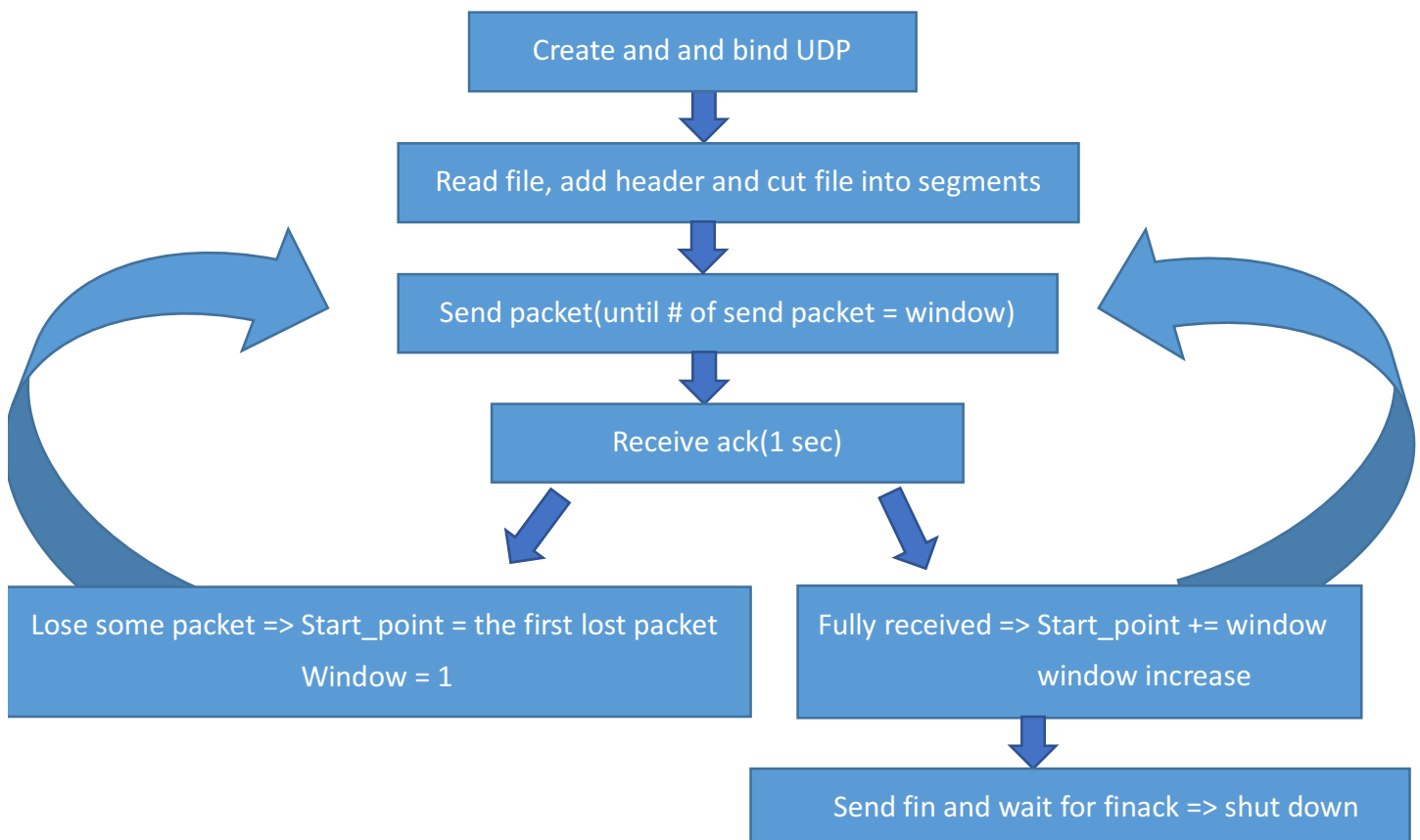
We can directly execute this program without any arguments and wait for data.

■ agent.py

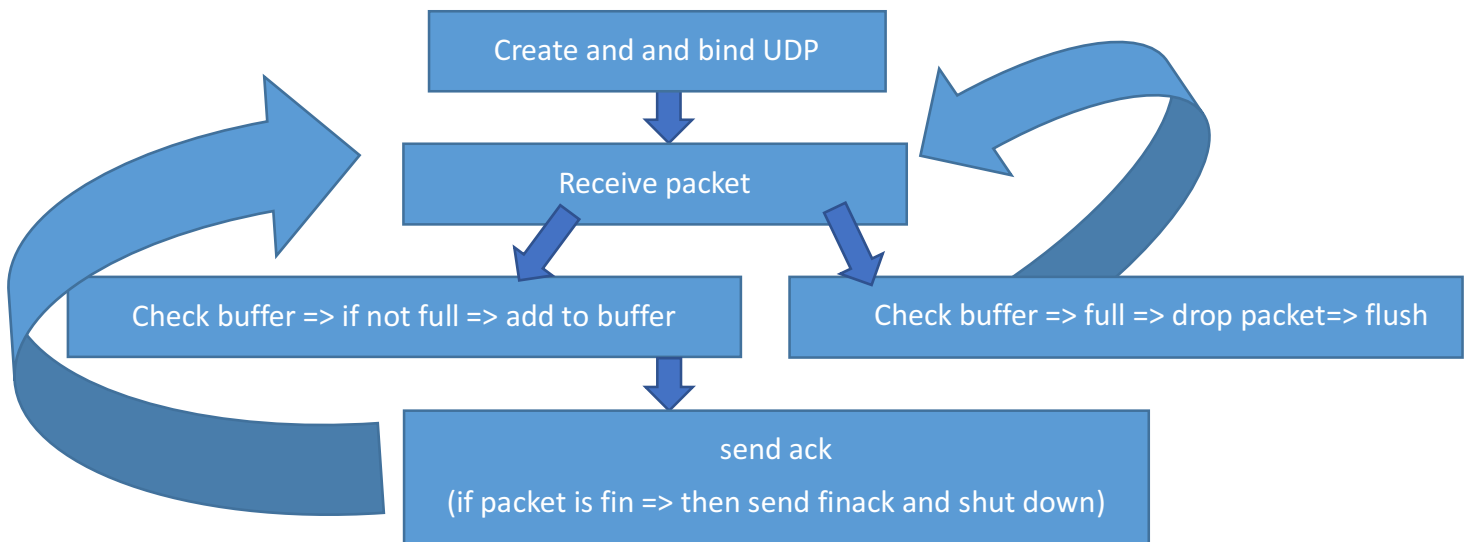
We need to enter “drop rate” as a input in this program. Then, the program will randomly drop to make the “actual drop rate” equal with “drop rate”.

● *Structure*

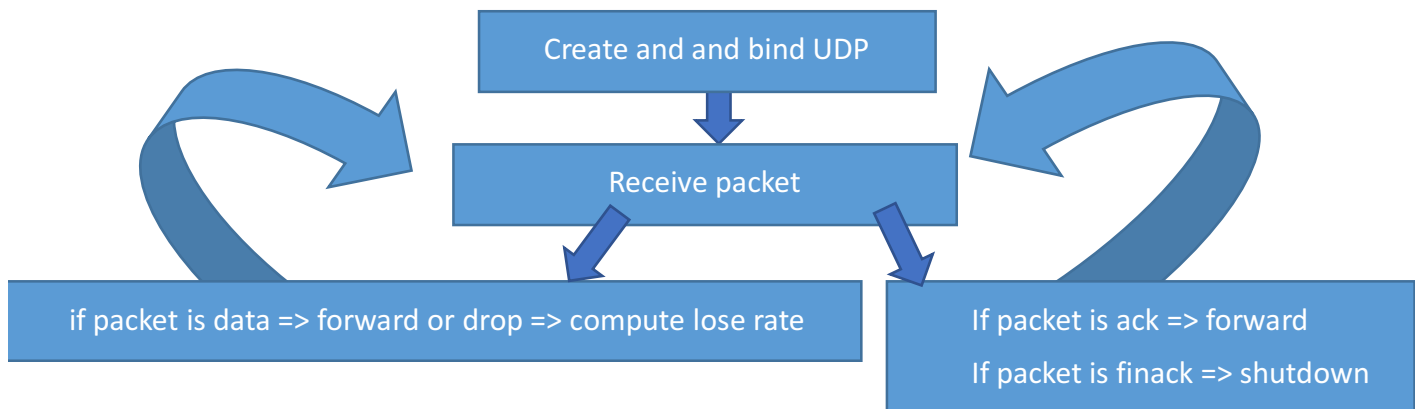
■ sender.py



■ receiver.py



■ agent.py



● *Difficulties and Solutions*

■ *Socket message format*

At first, I only test my program with .txt file and my program process it correctly. However, when I test it with .png or .mp3 file, the result file can't open as a .png or .mp3. After a long time for debugging, I finally found out that the problem is I used to change all data into string before transmission, and this will make files except .txt crash.

■ *Randomly drop packet*

At the beginning, I make agent drop packet randomly without any constraints. Thus, the sending progress is very slow. To solve this problem, I modified the agent.py so that I can enter a ideal lose rate and the program will drop packet to make "actual drop rate" close to "ideal drop rate".