Homework #2

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How to execute the program?

IP & Port

Compile

```
Language: C
gcc sender.c -o sender
gcc agent.c -o agent
gcc receiver.c -o receiver
```

Execute

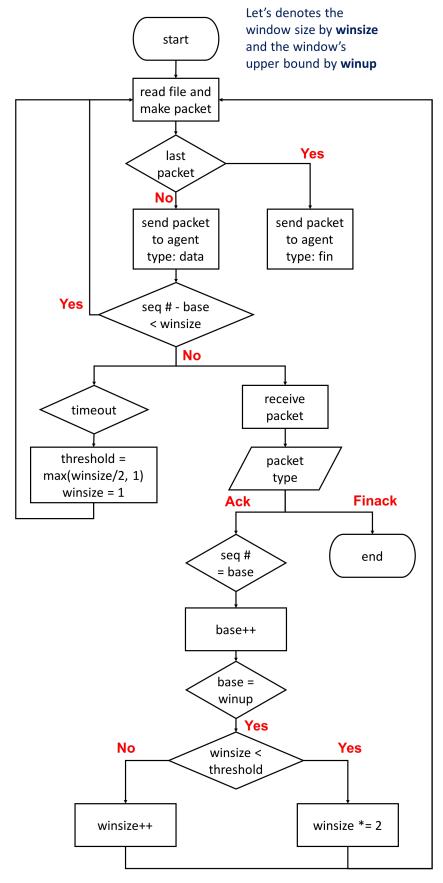
```
./sender <agent_ip> <agent_port> <read_file_path>
./agent <sender_ip> <sender_port> <receiver_ip> <receiver_port>
./receiver <agent_ip> <agent_port> <write_file_path>
```

Example

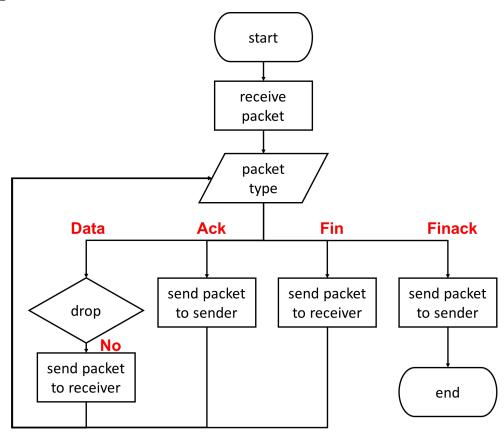
```
./sender 127.0.0.1 5001 file.txt ./agent 127.0.0.1 5000 127.0.0.1 5002 0.2 ./receiver 127.0.0.1 5001 output.txt
```

Program structure

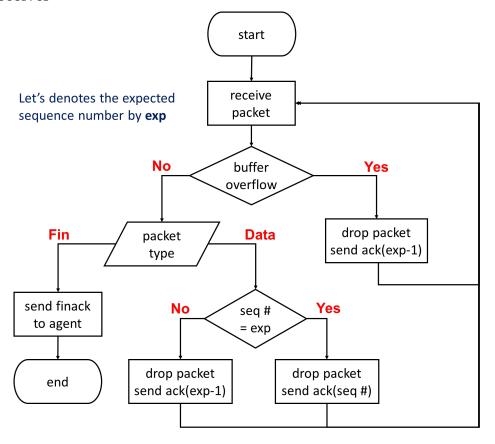
Sender



Agent



Receiver



Difficulties & Solutions

1. Difficulty: Timeout for sender

Soultion: Use select

2. Difficulty: Buffer overflow for receiver

Soultion: Record the number of packets received. When a packet is received and the buffer

is full, flush the buffer and drop that packet.