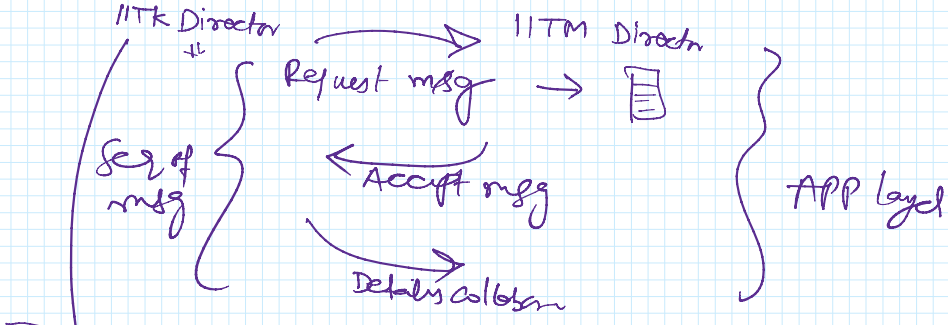
Lecture 4

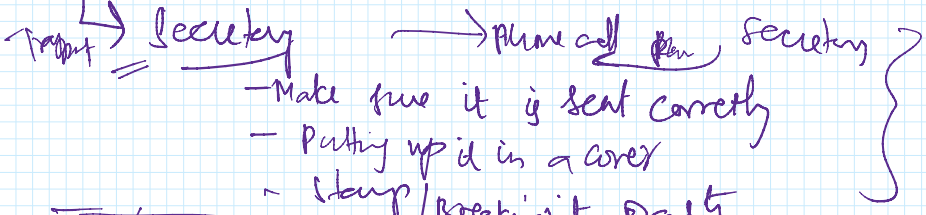
19 August 2021 17:01

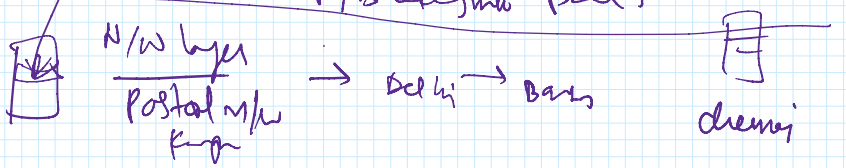
- Recap → layering concept
- Application layer
- Socket Programming to understand APP layer
  - ↳ Python coding.
- Http protocol.

Analogy

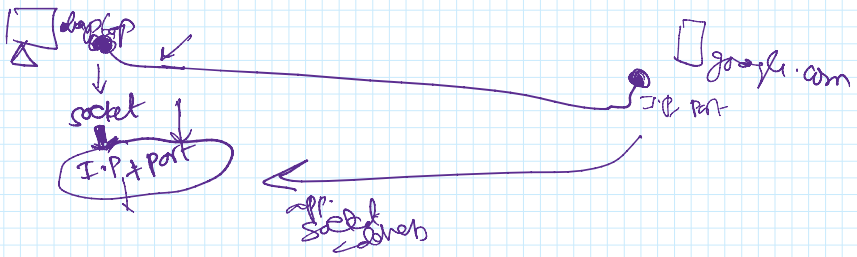
APP
Transp
N/W
link layer
Phy







Socket concept



Application layer

2 architectures
① Client to Server
② Peer to peer.

1. Dedicated server which is ON always
2. Permenant IP add

(2) Peer to peer.

2. Permanent IP add
   ↳ which is to be given to Client

3. Client — IP → dynamic (not fixed)
   ↳ on/off

4. Client ⟷ (crossed out) Client

Data Centers Inf.
client A → Server → client B

- No fixed server.
- User ⟷ User   Torrent download
- Complex
- Scalable — Inf.
- Incentives → selfish

HYBrid arch.   Skype.

Transport layer   App layer ✓
→ option to choose among different existing Transport layer
→ TCP / UDP
TCP { → port N/w ✓ ; → connection ✓ }

- → Reliability ✓ → port
- → Throughput guarantees   10 mbps
- → Latency
- → Security
- → ordering

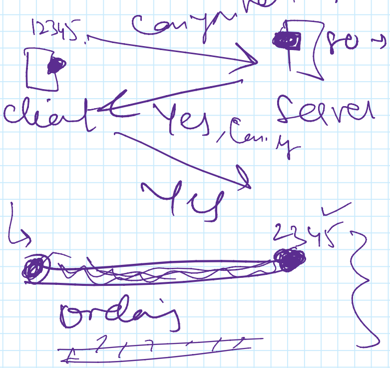
TCP	UDP
✓ Reliability ✓	— Reliability ✗
✓ Security	— Error Corre ✓
✗ Throughput	— Slicing into Packets ✓
✗ Latency	

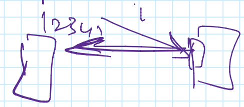
Sync
X Latency

– Slicing with packets

Connection-oriented | Connection-less

TCP | UDP





~~Simple App~~

TCP / UDP

server ← I am in Chennai ← client

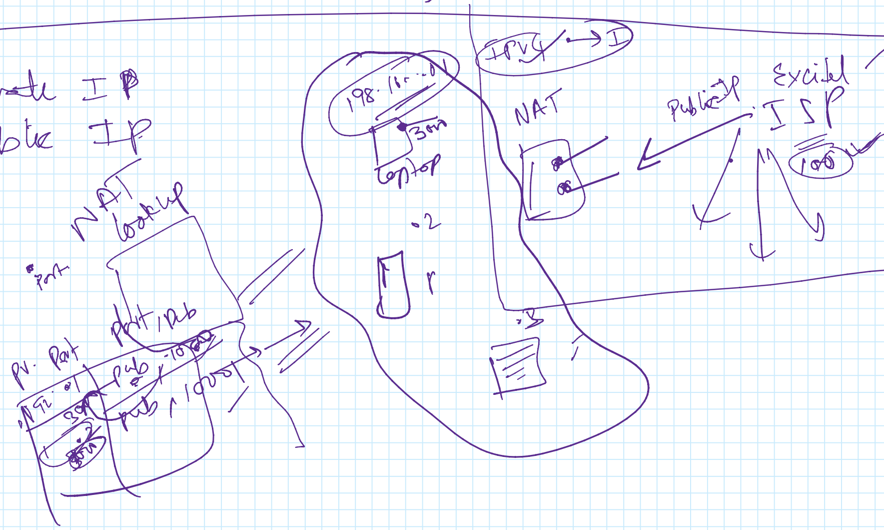
I AM IN CHENNAI

Application protocol

Python coding.

Private IP

Public IP



Dynamic IP

Static IP