3- Way handshake
(COMPUTER NETWORK)

Very Important

What is ??

It is a process which is used in a TCP/IP network to make a connection b/w server and client.

It is a 3-step process that require both the client and server to exchange synchronization and acknowledgement packet.
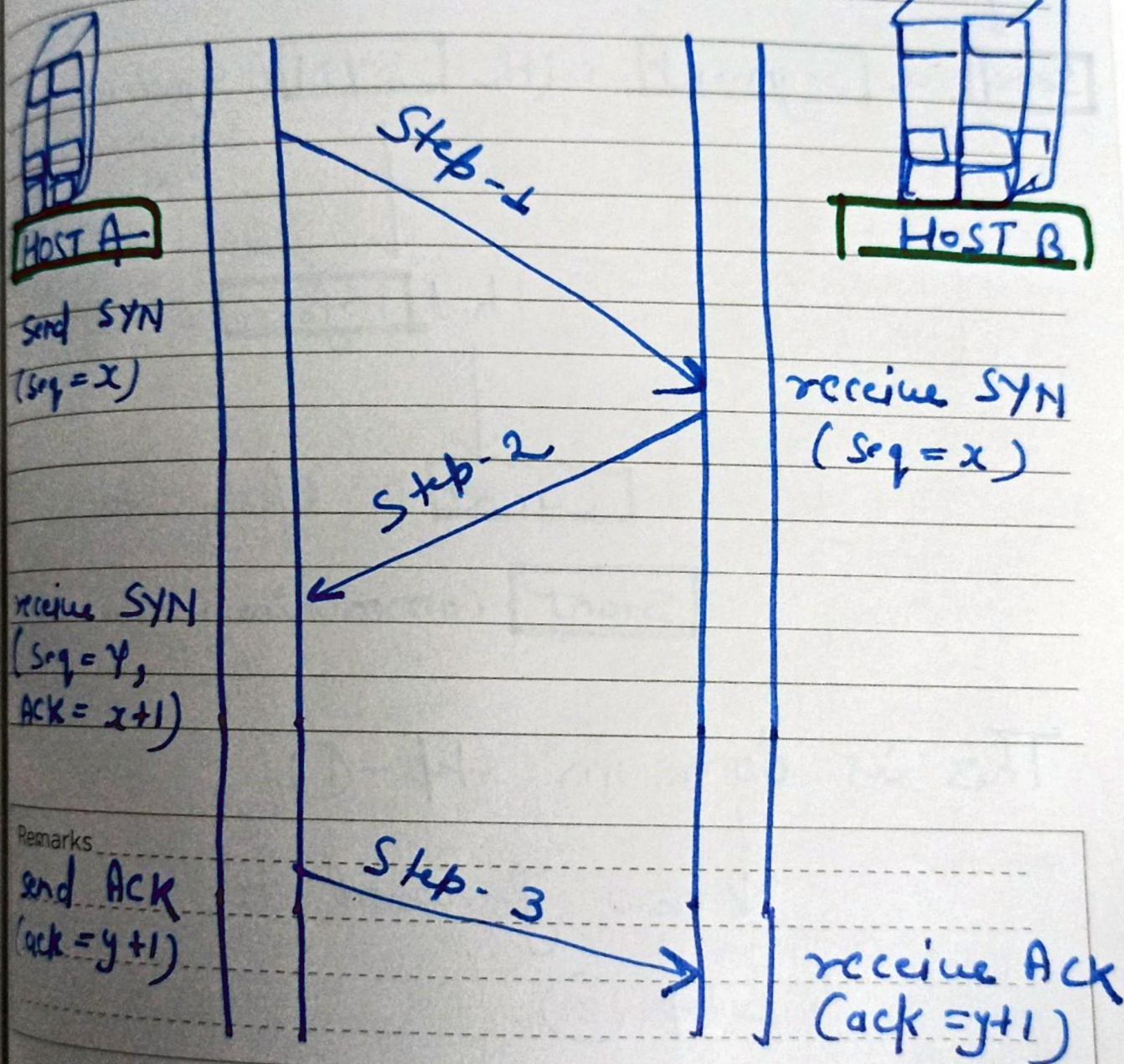
1 → ① SYN
→ ② SYN-Ack
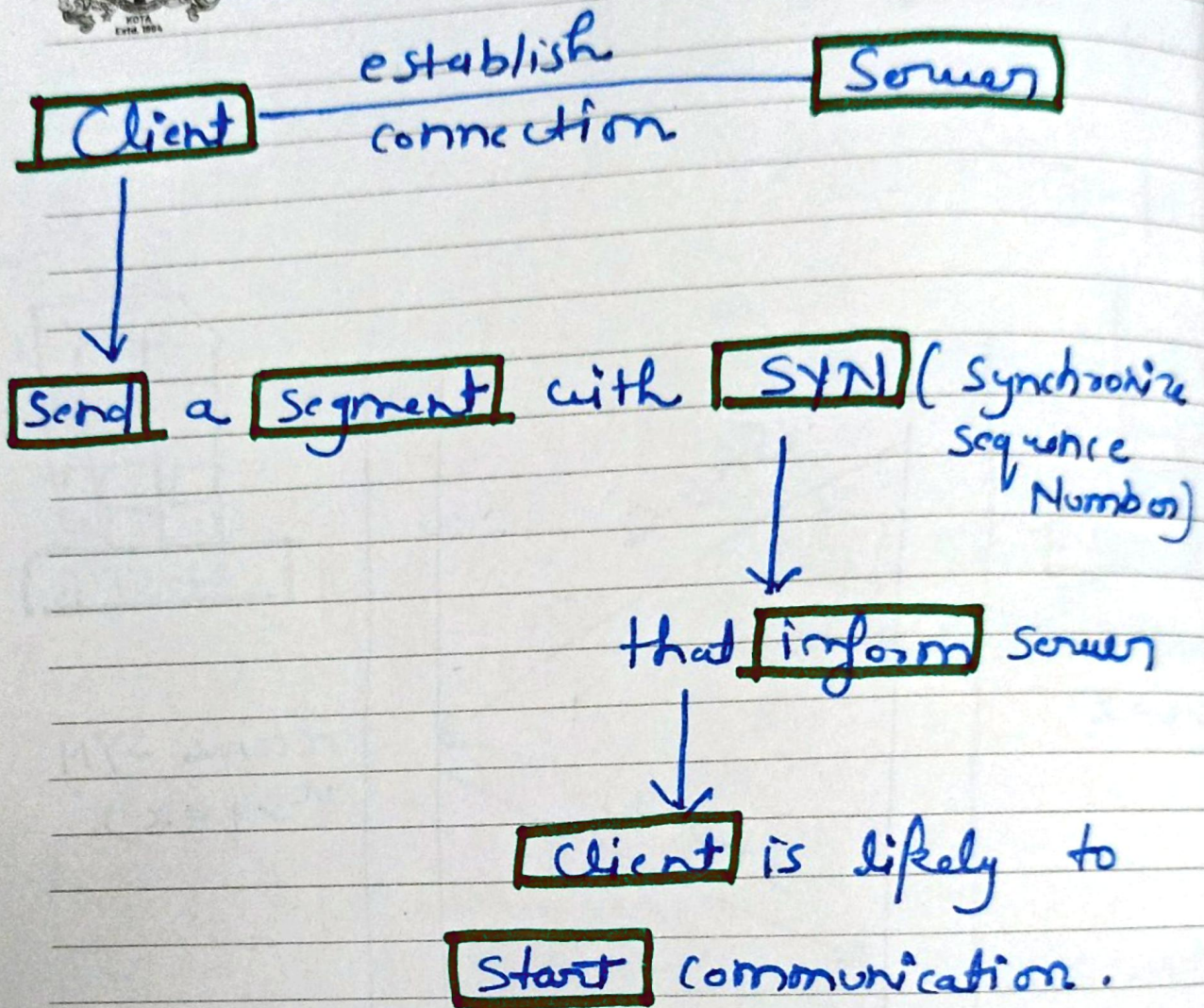→ ③ Ack

Explaimation of these

Steps ——

Step - ①

HOST A

send SYN
(seq = x)

Step-1

receive SYN
(seq = x)

Step-2

receive SYN
(seq = y,
ACK = x+1)

HOST B

send ACK
(ack = y+1)

Step- 3

receive Ack
(ack = y+1)

Date__/__/_____

Step-1 (SYN):

Client ——— establish connection ——— Server

Client →

Send a Segment with SYN (Synchronize Sequence Number)

that inform Server

Client is likely to

Start communication.

This is done in step-①

↓ now forward to

Step ②

Step - 2 (SYN + ACK):
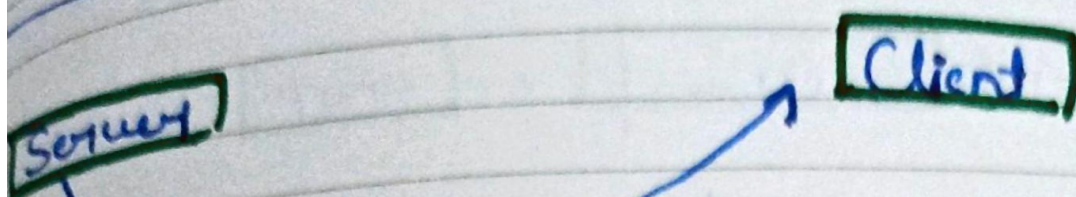
Server → Client

respond to the Client-request with

↓

SYN - ACK

↓

It signifies with what Sequence number it is likely to start the segment.

here, Seq = y and ACK = x+1

What is ACK —— ??

It is stands for acknowledgment, means it inform both client and server

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about the **packet**, wheather it will **received** or **not**.

Now move to Step - ③

Step - 3 (Ack):

After **receiving** the reply.

↓

Client **acknowledges** the **response** of server.

↓

It **acknowledges** the server by **Sending** a **pure acknowledgement**

↓

will **not** contain any **sequence number**.

Means ⟶

when you send SYN = 1

⟶ means 1 Sequence
number

but when you are sending

only ACK = 1 ⟶ 0 sequence
number.