Anatomy of a TCP connection

SYN

SYN, ACK

ACK

Data

ACK

Data

ACK

⋮

FIN, ACK

ACK

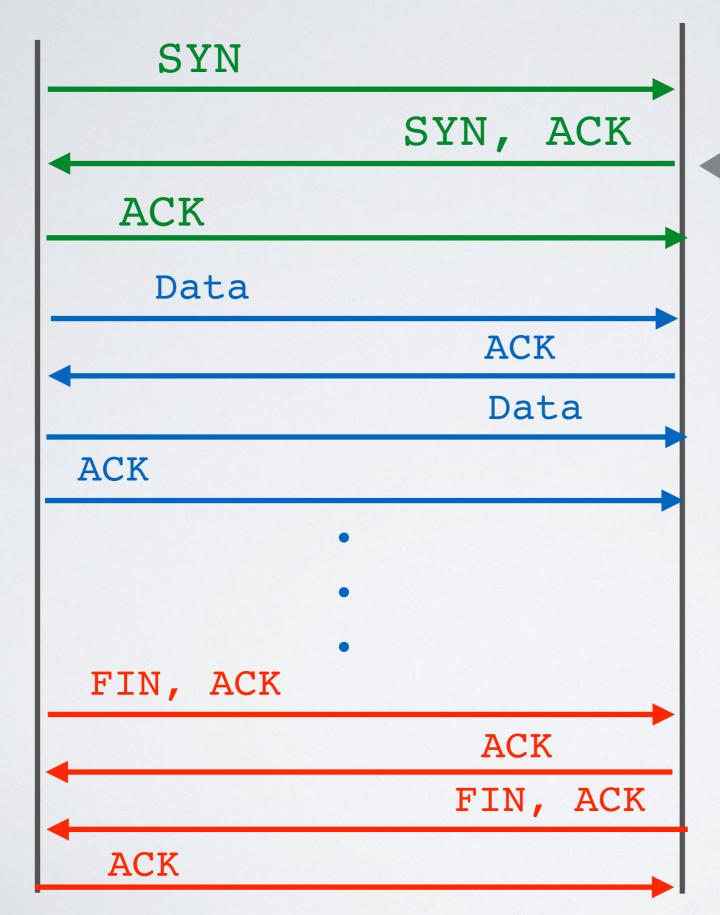FIN, ACK

ACK

The server **allocates resources** to handle that connection (thread, buffer and others)

Port scanning

➡ Using the "3-way" handshake, an attacker can scan for all open ports for a given host

e.g. `nmap`