

[OSI Model and TCP/IP stack]

* To represent sending data from one physical Machine to another, there are many theoretical layers. OSI model gives representation of these layers.

What is this mythical word

"Protocol"?

→ Standard Two Machine knows

→ If we have a stream of bytes → If there is protocol

both Machine will know how

to read those bytes

E.g. → Random protocol for example

0 0 | 0 0 | 0 0 | | | | | |

↓ ↓
6 bytes header Rest bytes data

* Each protocol defines data format and some algorithm to work on that data



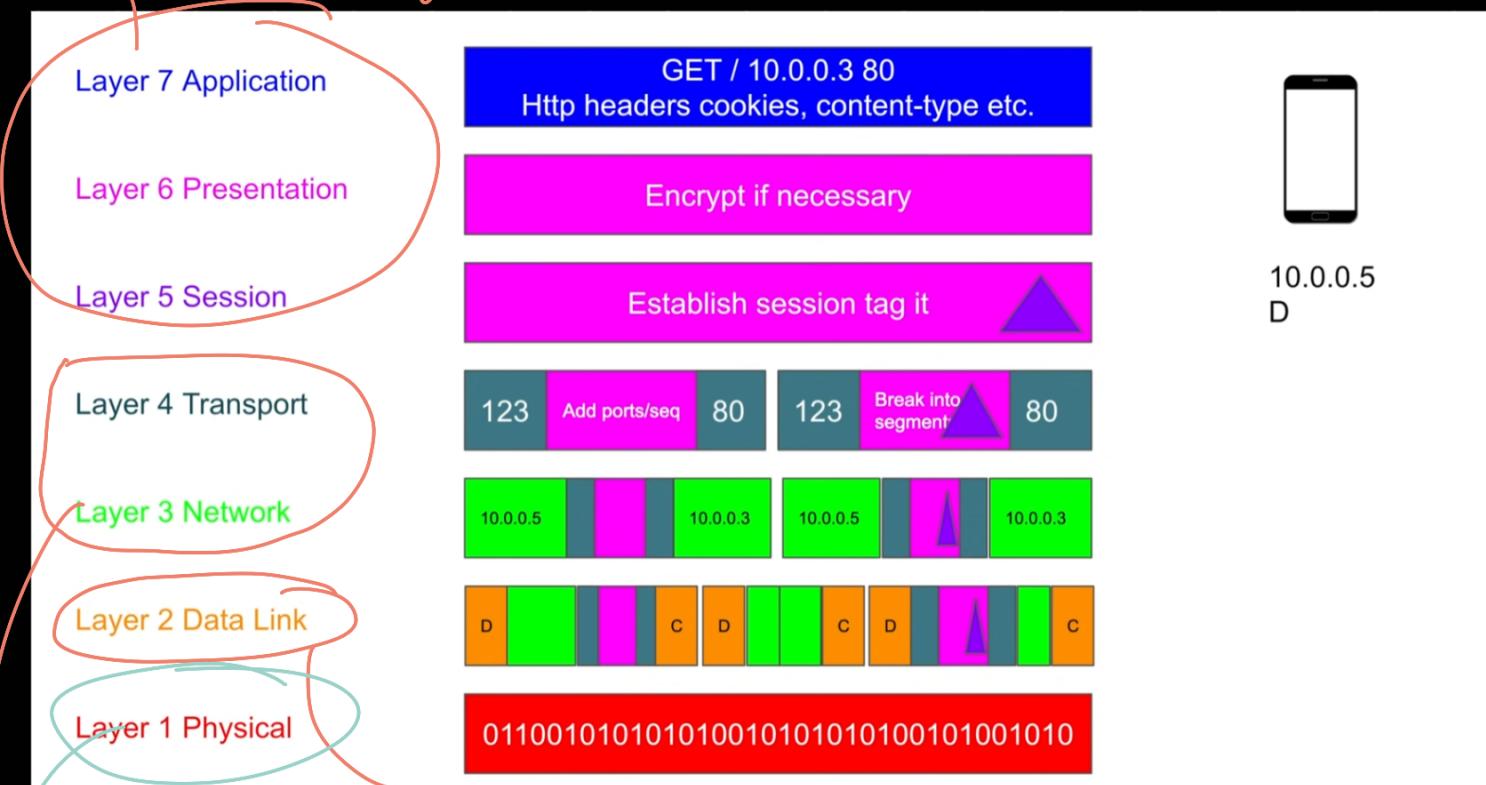
E.g. → Simple HTTP GET to fetch a html file from remote Machine



HTTP/HTTPS → Protocol name

→ It will have some header with well defined data (bytes) format

Generally Application (Browser, App)



→ Code inside OS

Half of OS code

+

NIC card + drivers

Physical wire
or
wireless
Medium

So, Each layer add 9b extra header (bit) to actual data

↳ These seems that if we have

1 bit data, we are adding large amount of extra bit(header)

↳ This is important as we need to sent data b/w two machines we should have standard format

so that Both Machine Manufacturer, OS Manufacturer uses this standard to implement hardware and system software like OS.