# Hyper Text Transfer Protocol (HTTP) vs Transmission Control Protocol (TCP)

- provides users a way to interact with web resources such as HTML files by transmitting hyperText messages between clients (like a web browser: Chrome) and a server

- HTTP clients generally use TCP connection to communicate w/ servers

  - Get = requests a specific source in its entirity
  - HEAD = A specific resource w/ no body content
  - POST = Adds articles, messages and information to another page under an existing web resource
  - PUT = Directly modifies a current web source and creates a new url if need be.
  - Delete = Eliminates a specified resource
  - Trace = show users any modifications or additions made to an internet resource
  - Options = Show users which HTTP methods are available for a particular URL.
  - Connect = Transforms the requested link.
  - Patch = Partially modify an internet resource

  HTTP servers use the GET & HEAD methods

- communication standard that enables application programs and devices to exchange data and/or messages over networks

- TCP operates as a 3-way communication protocol, while HTTP is a single-way protocol

- When a connection is established, a 3-way handshake is made

Syn ① Source sends a syn request packet to the server in order to start session establishment process

Syn-Ack ② The server sends Syn-Ack packet to agree to the process

Ack ③ the source sends an ACK packet to the target to confirm the process, after which data can be sent

- a connection-oriented protocol which states a connection is established and maintained until the data at each end have finished exchange

- TCP uses a technique known as positive acknowledgment with retransmission, requiring the receiving end of a transmission to give a response as to what data has been received.

- HTTP is utilized to access websites TCP is a session establishment protocol between client and server

- TCP is useful to setup connection for data transfer.