

## Components of a URL

http://127.0.0.1:8080

**Protocol:** Specifies how the data will be transferred. In this case, HTTP usually for websites the protocol is HTTP HTTPS

**IP Address:-** A set of rules that governs how the data is sent over the network. IP ensures that data packets are sent to correct destination.

**Domain Name:** Used to refer to an IP address in a more user friendly way. For example - www.google.com

0 - 255  
(ranges of values)

ipv4 -125.222.106.122

ipv6-2001:0db8:0a0b:12f0:0000:0000:0000:0001

**Port number:-** port numbers are 16-bit unsigned integers ranging from 0 to 65535, used to identify specific communication channels on a device connected to a network.

<http://myserver.com/index.html?uid=10&sid=4032013>

Protocol : http

Host-name : myserver.com (Domain name )

File Path : index.html (the location of the resource)

Query String : uid=10&sid=4032013 ( contains additional parameters.)

<https://onlinedegree.iitm.ac.in/academics.html>

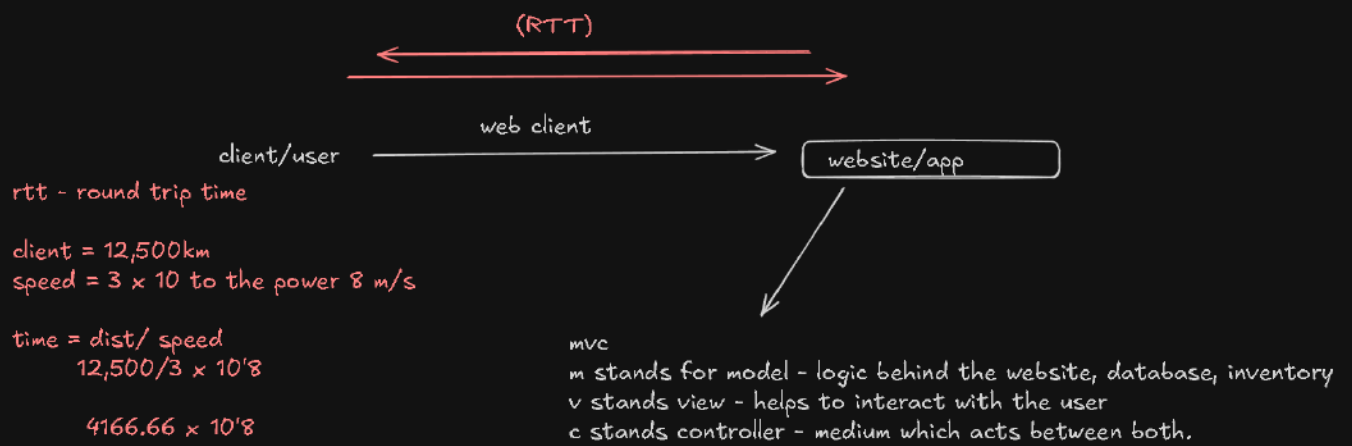
Protocol : HTTPS

Domain name : onlinedegree.iitm.ac.in

Resource location : /academics.html

Root domain : iitm.ac.in

Sub domain : onlinedegree



### Bandwidth Calculation for high traffic websites

website gets 10,000 request in a sec  
 request generates = 150kb ( 1kb = 8000 bits )  
 bandwidth = ??

total data ( output ) =  $10,000 \times 150\text{kb} = 1,500,000\text{kb}$  (  $\times 8000$  if they asked to convert to bits )