**What happens when you enter url in browser and hit enter button?**

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1. After you enter url and hit enter buttom:
   1. After you enter url in browser ,browser get some attribute i.e, protocol that you are using ,the domain name and the port number
2. The browser checks DNS for IP address:
   1. To connect to the host we need a IP address and DNS provides it.
   2. Browser checks four cache to find DNS record:
      1. Browser cache
      2. OS cache
      3. Router cache
      4. ISP cache
   3. If the requested url is not in the cache ,ISP’s DNS server initiates DNS query to find IP address of the server
3. The browser initiates the TCP connection with server:
   1. Once the browser receives the correct IP address, it will build connection with the server that matches IP address.
   2. Browser user Internet Protocol to build the connection
   3. TCP is the most common protocol used to build the connection
4. The Browser sends HTTP request to web server:
   1. After establishing TCP connection,now data transfer can be started
   2. Browser will send GET request or Post request to server
   3. It will also send additional information such as browser identification,type of request that it will accept,and header connection asking it to keep TCP connection alive to send further request.
   4. It will also pass information from cookies that browser has in store for this domain
5. The Server handles the request and sends response:
   1. The server contains Webserver that receives the request and send it to request handler to read and generate the response
   2. Request handler reads request,checks header ,cookies to check what is being requested
   3. It updates information on server if needed and then assembles information in format
6. The server send out HTTP response:
   1. The server response consist of web page that is requested as well as status code,compression type,how to cache the page and cookies to set,privacy information .
7. The browser displays the HTML contain:
   1. Browser begins parsing once it receives first chunk of data.
   2. In parsing data that is received over network is turned into DOM and CSSOM which is used by a renderer to paint a page on screen