1. **Domain Name Server** – Each machine is recognized by its own unique IP (Internet Protocol ) address. Now, through a browser we can access any remote machine via its IP address. But IP addresses are complex and difficult to remember. Hence, comes the concept of Domain Name – which are easier to remember and mapped to the system’s IP address. Some egs of domain name are – google.com, acadgild.com etc.

Now, with this IP address of the remote machine we register on something that provides us the domain name. We can provide this domain name to the end user and when the end user say for example enters the domain name - acadgild .com, and hits enter this gets converted to the system’s IP address which has all the required files and information in it.

This process of converting the domain name to the IP address is taken care by separate servers called as Domain Name Server. They are a group /cluster of servers containing domain name to IP address mapping.

The name server searches for acadgild.com domain name

DOMAIN NAME

It takes the SERVER

User to DNS

End user wants to

go to acadgild.com

The name server then reverts back with the IP address of acadgild.com domain name.

**CLIENT**  **SERVER**

1. There are two worldwide used protocols for communication between the server and the client called as HTTP which stands for Hyper text Transfer Protocol or the more secure version of HTTP known as HTTPS which stands for Hyper text transfer protocol secure.

For eg – Consider a web page having a text box for entering UserName ,another text box for password and a submit button. There is a server and for the bridge communication between the server and the client we have HTTP. Now when the end user will fill in all the information and hit the submit button HTTP will establish a connection between client and the server. HTTP will help us to carry data to the server in a JSON format.

We can say that client requests data and server responds .

This is how a request response cycle works. Client/end user will send a HTTP request to the web server .The server will then process the HTTP request and will return a HTTP response to the client.

HTTP REQUEST

CLIENT SERVER

HTTP RESPONSE