**How an Internet works?**

Everything on the internet works on the TCP/IP i.e Transmission Control Protocol/Internet Protocol. Here the information is shared between a client and a server i.e between a website, web server and a browser. Suppose an URL (Uniform Resource Locator) is typed on the browser like <https://www.hanselman.com>/blog it has three parts like protocol, the domain name and a path. The http means Hypertext Transfer Protocol and the domain name is transferred into IP address. The DNS (Domain Name Server) Maintains the IP address for all the websites.

When an user accesses a website there is a three-way handshake process taken place.

1. Request from the client (SYN)
2. Acknowledgement for the request by the server(ACK)
3. Connection establishment (HANDSHAKE)

Open System Interconnection Model of Network Communication:

1. Application Layer -top most layer -Message format, Human -Machine interfaces takes plae
2. Presentation Layer -Data Compression and Encryption takes place
3. Session Layer - Authentication and permission
4. Transport Layer - The transport layer provides communication between application processes running on different hosts and other network components
5. Network Layer - Network layer manages network addressing, sub-networks, and internetworking.
6. Data Link Layer - The data link layer handles the moving of data into and out of a physical link in a network.
7. Physical Layer - Physical layer deals with the physical connectivity of two different stations like the hardware equipment, cabling, wiring, frequencies, pulses used to represent binary signals etc. Physical layer provides its services to Data-link layer.

When the HTTP response is

200: Cool

300: redirection

400: client side error

500: server side error

The website is managed by a load balancer which actually handles when a multiple user accesses a single page at a time. The technique used here is round-robin algorithm which is a scheduling algorithm that allows the user to access the page evenly.