he Internet is **a global network of billions of computers and other electronic devices**.it's possible to access almost any information, communicate with anyone else in the world

he World Wide Web (WWW), often called the Web, is a system of interconnected webpages and information that you can access using the Internet. It was created to help people share and find information easily, using links that connect different pages together.  
CERN in 1989  
  
A website is **a collection of files accessed through a web address, covering a particular theme or subject, and managed by a particular person or organization**.

A website is whatever the website owner wants it to be. It could be informational, educational, divisive – you name it. A website is essentially **a platform for an individual or business to express themselves and utilize in whichever way they choose**.  
  
  
e **Hypertext Transfer Protocol** (HTTP) is the foundation of the World Wide Web, and is used to load webpages using hypertext links. HTTP is an application layer protocol designed to transfer information between networked devices and runs on top of other layers of the network protocol stack.  
HTT**P messages are plaintext, which means unauthorized parties can easily access and read them over the internet.** **In contrast, HTTPS transmits all data in encrypted form**.  
he primary or most-commonly-used HTTP verbs (or methods, as they are properly called) are **POST, GET, PUT, and DELETE**. These correspond to create, read, update, and delete (or CRUD) operations, respectively.  
A web server is **software and hardware that uses HTTP (Hypertext Transfer Protocol) and other protocols to respond to client requests made over the World Wide Web**. The main job of a web server is to display website content through storing, processing and delivering webpages to users.  
A Uniform Resource Locator, or URL is **the address of a specific location on the web**. a URL is a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it.

The *Domain Name System* (*DNS*) is the phonebook of the Internet. Humans access information online through domain names, like nytimes.com or espn.comWeb browsers interact through Internet Protocol (IP) addresses. DNS translates domain names to IP addresses so browsers can load Internet resources.

Web standards are **the core set of rules for developing websites**. It might be possible to develop sites that do not comply with standards, but doing so increases the likelihood that many people will be unable to access your site

The client-server model, or client-server architecture, is **a distributed application framework dividing tasks between servers and clients**, which either reside in the same system or communicate through a computer network or the Internet.For example, when you type www.google.com into your web browser, your browser is acting as a client. It makes a request to Google's servers for the website you've requested  
  
n a two-tier architecture, **the client is on the first tier.** **The database server and web application server reside on the same server machine, which is the second tier**. This second tier serves the data and executes the business logic for the web application.  
A few examples of the two-tier database architecture are the **Railway Reservation System, Contact Management System that one can create with the MS-Access  
  
  
Three-tier architecture can be divided into three parts: Presentation layer (or Client Tier): This layer takes care of the User Interface. Application layer (or Business Tier): This layer handles the detailed processing. Database layer (or Data Tier): This layer stores the information.**

router is a device that connects two or more packet-switched networks or subnetworks. It serves two primary functions: managing traffic between these networks by forwarding data packets to their intended IP addresses, and allowing multiple devices to use the same Internet connection  
  
A network gateway is a device that connects different networks by translating messages from one protocol into another protocol. The gateway monitors and controls all the incoming and outgoing [network traffic](https://www.geeksforgeeks.org/scraping-data-in-network-traffic-using-python/). Gateways are also known as protocol converters because they play an important role in converting protocols supported by traffic on different networks. As a result, it allows smooth communication between two networks.  
  
he Domain Name System (DNS) is the phonebook of the Internet. Humans access information online through [domain names](https://www.cloudflare.com/learning/dns/glossary/what-is-a-domain-name/), like nytimes.com or espn.com. Web browsers interact through [Internet Protocol (IP)](https://www.cloudflare.com/learning/network-layer/internet-protocol/) addresses. DNS translates domain names to [IP addresses](https://www.cloudflare.com/learning/dns/glossary/what-is-my-ip-address/) so browsers can load Internet resources.

Each device connected to the Internet has a unique IP address which other machines use to find the device. DNS servers eliminate the need for humans to memorize IP addresses such as 192.168.1.1 (in IPv4), or more complex newer alphanumeric IP addresses such as 2400:cb00:2048:1::c629:d7a2 (in IPv6).

JSON is an open standard file format and data interchange format that uses human-readable text to store and transmit data objects consisting of attribute–value pairs and arrays. It is a commonly used data format with diverse uses in electronic data interchange, including that of web applications with servers.