The Internet and the Web

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Introduction

- The internet is a global network of interconnected computers and servers that allows people to communicate, share information, and access resources from anywhere in the world. It was created in the 1960s by the US Department of Defense as a way to connect computers and share information between researchers and scientists.

Introduction

- The World Wide Web, or simply the web, is a system of interconnected documents and resources, linked together by hyperlinks and URLs. It was created by Tim Berners-Lee in 1989 as a way for scientists to share information more easily. The web quickly grew to become the most popular way to access information on the internet.

Introduction

- Together, the internet and the web have revolutionized the way we communicate, do business, and access information. They have made it possible for people all over the world to connect with each other instantly and have transformed many industries, from media and entertainment to education and healthcare.

Internet

The Internet: In simplest terms, the Internet is a global network comprised of smaller networks that are interconnected using **standardized** communication protocols. The Internet standards describe a framework known as the Internet protocol suite. This model divides methods into a *layered system of protocols*.

These layers are as follows:

- **Application layer (highest) –** concerned with the data(URL, type, etc.). This is where HTTP, HTTPS, etc., comes in.

- **Transport layer –** responsible for end-to-end communication over a network.

- **Network layer –** provides data route.

Internet

- The Internet provides a variety of information and communication facilities; contains forums, databases, email, hypertext, etc. It consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies.

The World Wide Web

- **The World Wide Web:** The Web is the only way to access information through the Internet. It's a system of Internet servers that support specially formatted documents. The documents are formatted in a markup language called **HTML**, or "HyperText Markup Language", which supports a number of features including links and multimedia. These documents are interlinked using hypertext links and are accessible via the Internet.

The World Wide Web

To link hypertext to the Internet, we need:

- The markup language, i.e., HTML.
- The transfer protocol, e.g., HTTP.
- Uniform Resource Locator (URL), the address of the resource.

We access the Web using **Web browsers**.

Difference between Web and Internet:

Internet	Web
The Internet is the network of networks and the network allows to exchange of data between two or more computers.	The Web is a way to access information through the Internet.
It is also known as the Network of Networks.	The Web is a model for sharing information using the Internet.
The Internet is a way of transporting information between devices.	The protocol used by the web is HTTP.
Accessible in a variety of ways.	The Web is accessed by the Web Browser
Network protocols are used to transport data.	Accesses documents and online sites through browsers
Global network of networks	Collection of interconnected websites
Access Can be accessed using various devices	Accessed through a web browser
Protocols TCP/IP, FTP, SMTP, POP3, etc.	Protocols HTTP, HTTPS, FTP, SMTP, etc.