

UNIT-I

Fundamentals of Internet:

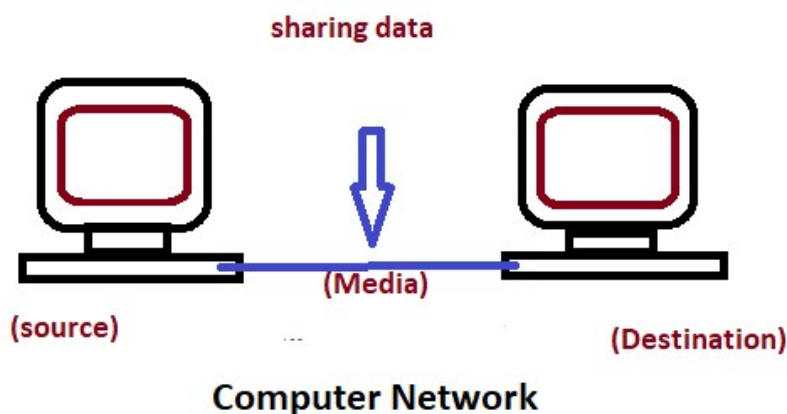
What is internet? Internet applications, Internet addressing –Entering a Website address, URL-Components of URL, searing the internet, Browser- types of Browsers, introduction to social networking: Twitter, Tublr,Linkedin, Facebook, Skype,yahoo, youtube ,whatsup.

Introduction of Internet:

Network: A network *consists of two or more computers that are linked/inter connected.*

A network is a set of devices (often referred to as nodes) connected by communication links. A node can be a computer, printer, or any other device capable of sending and/or receiving data generated by other nodes on the network.

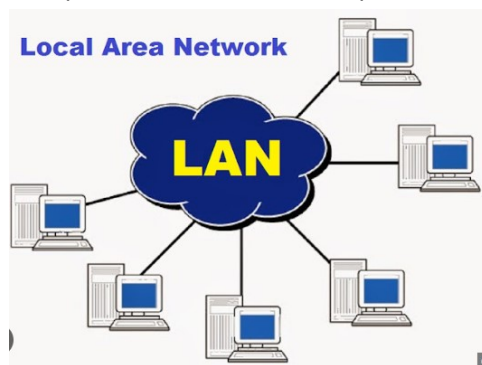
Computer Networks: “Computer network” to mean a collection of autonomous computers interconnected by a single technology. Two computers are said to be interconnected if they are able to exchange information.



Types of Networks: (mainly)

1. LAN (Local Area Networks):

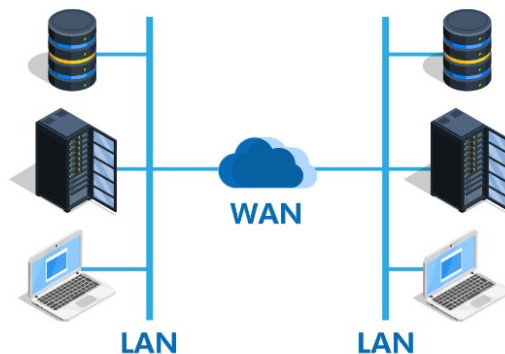
Group of interconnected computers within a small area. (room, building, campus).



Two or more pc's can from a LAN to share files, folders, printers, applications and other devices. Coaxial or CAT 5 cables are normally used for connections. Due to short distances, errors and noise are minimum. Data transfer rate is 10 to 100 mbps. Example: A computer lab in a school/colleges

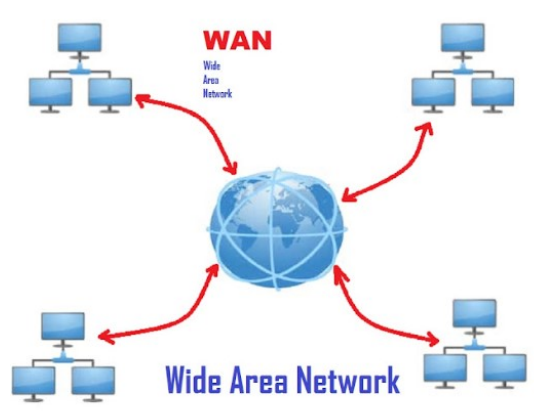
2. MAN (Metropolitan Area Networks):

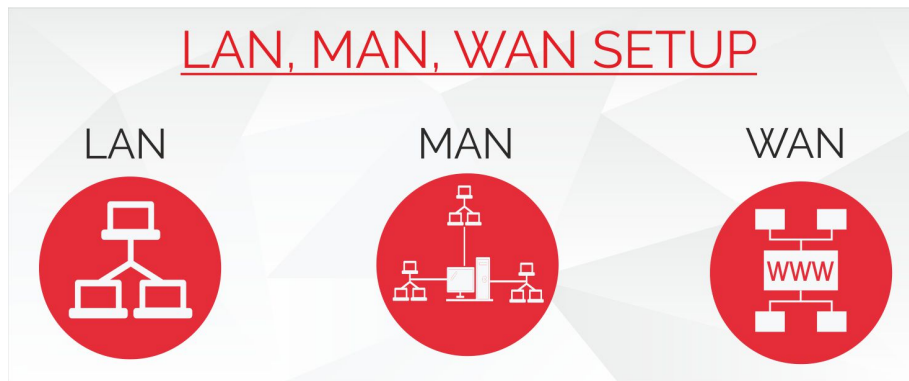
Two or more pc's can from a LAN to share files, folders, printers, applications and other devices. Coaxial or CAT 5 cables are normally used for connections. Due to short distances, errors and noise are minimum. Data transfer rate is 10 to 100 mbps. Example: A computer lab in a school.



3. WAN (Wide Area Networks)

Are country and worldwide network. Contains multiple LAN's and MAN's. Distinguished in terms of geographical range. Uses satellites and microwave relays. Data transfer rate depends upon the ISP provider and varies over the location. Best example is the **internet**.



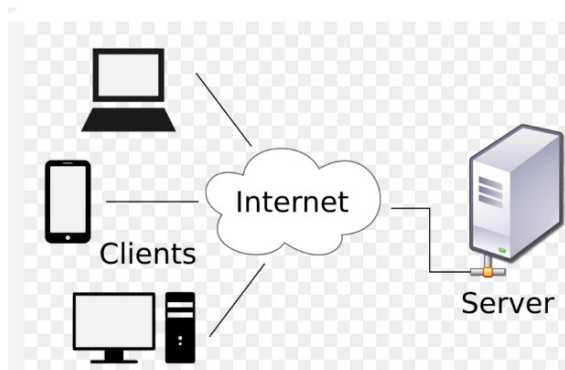


What is internet?

Internet is a global network that connects billions of computers across the world with each other and to the World Wide Web. (Network of network)

At present, internet is the fastest mean of sending or exchanging information and data between computers across the world.

Internet is called a network as it creates a network by connecting computers and servers across the world using routers, switches and telephone lines, and other communication devices and channels. So, it can be considered a global network of physical cables such as copper telephone wires, fiber optic cables, tv cables, etc. Furthermore, even wireless connections like 3G, 4G, or Wi-Fi make use of these cables to access the Internet.



History of the Internet:

The forerunner of the Internet, the ARPANet, went live for the first time in **1969**. The TCP/IP, open networking protocol suite, was adopted by the ARPANet in 1983, and the National Science Foundation Network (NSFN) developed the network to link university computer science departments across the US in 1985.

When the hypertext transfer protocol (HTTP) was developed in 1989, it enabled different computer platforms to connect to the same Internet sites, which dramatically improved communications over the network. The Mosaic Web browser was developed in **1993**.

Advantages of the Internet:

- **Instant Messaging:** You can send messages or communicate to anyone using internet, such as email, voice chat, video conferencing, etc.
- **Get directions:** Using GPS technology, you can get directions to almost every place in a city, country, etc. You can find restaurants, malls, or any other service near your location.
- **Online Shopping:** It allows you to shop online such as you can be clothes, shoes, book movie tickets, railway tickets, flight tickets, and more.
- **Pay Bills:** You can pay your bills online, such as electricity bills, gas bills, college fees, etc.
- **Online Banking:** It allows you to use internet banking in which you can check your balance, receive or transfer money, get a statement, request cheque-book, etc.
- **Online Selling:** You can sell your products or services online. It helps you reach more customers and thus increases your sales and profit.
- **Work from Home:** In case you need to work from home, you can do it using a system with internet access. Today, many companies allow their employees to work from home.
- **Entertainment:** You can listen to online music, watch videos or movies, play online games.
- **Cloud computing:** It enables you to connect your computers and internet-enabled devices to cloud services such as cloud storage, cloud computing, etc.
- **Career building:** You can search for jobs online on different job portals and send you CV through email if required.

Disadvantages of the Internet:

- **Time wastage:** Although, Internet has a lot of advantages, it also contains some limitations. Time wasting is one of among them. It can decrease your productivity if you are spending too much time on the Internet using social media apps while doing nothing. Rather than squandering time, one should use that time to do something useful and even more productive.

- **Bad impacts on health:** You can get health related issues if you spend too much time online; your body needs outside activities, exercise, and many other things. If you look at the screen for a long time, it causes negative effects on the eyes.
- **Cyber Crimes:** These days, crimes including cyberbullying, spam, viruses, hacking, and data theft are increasing day by day. Cybercriminals can quickly break into your system, which store all of your private information.
- **Effects on children:** The constant watching of videos and playing games on the Internet by young children is bad for their social and overall personality development.
- **Bullying and spreading negativity:** Social media applications have provided a free tool to all those people who regularly attempt to spread negativity with really repulsive and humiliating comments and try to bully each other, which is wrong and does bad impact on society.

What is Internet Applications?

- Applications that require the Internet to run or use those applications are called Internet applications. Or you can also say that those applications have been made to run from the Internet itself.

Email

The full form of email is electronic mail. If it is understood in simple language, then email means, a message sent through electronic means. In earlier times, people used to send messages to someone through a postman, which took a lot of time, but in today's time, people use email to send messages to someone.

Through email, you can also send an email to someone in a few seconds and can also receive email from anyone. You just need to have an internet connection to send or receive emails. Do you know there are many advantages and disadvantages of email?

Through email, you can send text messages, program files, spreadsheets, photos, videos, etc to anyone. Email is mostly used by professional people. There are various Uses of Email.

Skype

Skype is a telecommunications application run by Skype Technologies. Skype is a VoIP-based application. VoIP means Voice-over-Internet Protocol. Through Skype you can do video conferencing, voice calls, messaging, file transfer, etc. Skype is a very popular videoconferencing application.

Google Meet

Google Meet is also a video-communication internet application, which was launched by Googler company on March 9, 2017. Through Google Meet, you can have online meetings, take online classes, give tuition to children online or you can also talk to anyone in a normal way.

But Google Meet is mostly used for online meetings or online teaching. There are many features of Google Meet, which helps you a lot in online meetings.

Zoom

Zoom is also a proprietary video telephony Internet application, which was launched by Zoom Video Communications company on October 12, 2011.

Through Zoom, you can hold online meetings, take online classes, give tuition to children online or you can even talk to anyone in a normal way.

But Zoom is mostly used for conducting webinars or teaching online. Zoom has both free and paid plans, that is, you can also use Zoom for free, but there are some limitations in the free plan, as you can have 100 users at a time in the free plan of Zoom.

WhatsApp

WhatsApp is a social messaging internet application developed by Meta company. Today, WhatsApp is used by millions of people around the world, it is a very popular messaging application.

Through WhatsApp, you can send text messages to anyone or you can also share images, documents, and your live location with anyone, and through WhatsApp, you can talk to anyone by voice and video calls.

Messenger

Messenger is also an internet application, which is made by Meta company. You can also send text messages, photos, videos, audio, and documents to anyone through messenger and you can also talk to anyone through a voice call and video call through this application.

2. Job Search:

Due to covid 19, many people lost their jobs today or if they say, millions of people around the world have become unemployed due to covid epidemic, and it is very difficult to find jobs again.

To find Job, you have to round the many offices and still do not get a good job. But now you don't have to worry.

In today's digital world it is very easy to find the job of your choice, yes you have read it right. Today you can easily find jobs related to your skills through the internet and give a direct interview to HR.

Now you will say that how can we find jobs from the internet, so let us tell you that today

there are many such applications of internet, which help you in finding jobs.

Through these internet job applications, you can find jobs for yourself sitting at home, these job portals have all kinds of jobs for all types of people, all you have to do is use these job applications and just send your resume. We have given below the names of some jobs providing internet applications.

Naukri.com

Monster.com

Freshersworld.com

Indeed.com

Glassdoor

ZipRecruiter

3. Online Shopping

Everything is possible in today's era, in earlier times people could not even imagine that without going to the market, anything could be bought, but in today's time, it is possible. We and you know that we can buy anything without going to the market without going to the shop.

Today the whole world is doing online shopping through the internet, that too sitting at home and you can also shop online from home through the internet.

Today there are many such applications on the Internet, through which you can buy anything online. Such as - Mobile, Tablet PC, Computers, Watch, Smart Watch, Television, Fan, Table Fan, LED Bulb, Glasses, Ring, Jewellers, Camera, Home Appliances, clothes, etc.

Through these shopping applications, you can order any item of your need sitting at home. We have given below the names of some shopping applications, from which you can shop.

Amazon

FlipKart

Paytm Mall

ShopClues

Myntra

Snapdeal

Meesho

4. Web Browsing:

Web browser is also an important Internet application, in earlier times, any user used to have a lot of trouble to do Internet travel, because at that time there were no good browsers so that people could do web browsing. But today there is more than one web browser, which you can

use to search anything on the Internet.

Today's web browsers come with more features than the earlier browsers, because today's web browsers are made of the latest technology, which has many advantages to use such as - saving password, incognito mode, history, zoom, Print, Bookmark etc.

The browser was invented by Tim Berners-Lee.

Today there are many types of web browsers, using which you can access the Internet. The names of those web browsers are given below.

Internet Explorer.

Google Chrome.

Mozilla Firefox.

Safari.

Opera.

Konqueror.

Lynx.

Tor Browser.

UC Browser.

Brave Browser.

➤ **Browser- types of Browsers:**

Web Browsers are software installed on your PC, Web Browser is a common term which is frequently used by people while discussing the Internet. However, the exact definition of a web browser is known by few only.

Web Browser Definition: A software application used to access information on the World Wide Web is called a Web Browser. When a user requests some information, the web browser fetches the data from a web server and then displays the webpage on the user's screen.

Types of Web Browser

The functions of all web browsers are the same. Thus, more than the different types there are different web browsers which have been used over the years.

Discussed below are different web browser examples and their specific features:



Internet Explorer

Internet Explorer (IE) is a product from software giant Microsoft. This is the most commonly used browser in the universe. This was introduced in 1995 along with Windows 95 launch and it has passed Netscape popularity in 1998.



Google Chrome

This web browser is developed by Google and its beta version was first released on September 2, 2008 for Microsoft Windows. Today, chrome is known to be one of the most popular web browser with its global share of more than 50%.



Mozilla Firefox

Firefox is a new browser derived from Mozilla. It was released in 2004 and has grown to be the second most popular browser on the Internet.



Safari

Safari is a web browser developed by Apple Inc. and included in Mac OS X. It was first released as a public beta in January 2003. Safari has very good support for latest technologies like XHTML, CSS2 etc.



Opera

Opera is smaller and faster than most other browsers, yet it is full- featured. Fast, user-friendly, with keyboard interface, multiple windows, zoom functions, and more. Java and non Java-enabled versions available. Ideal for newcomers to the Internet, school children, handicap and as a front-end for CD-Rom and kiosks.



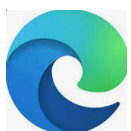
Konqueror

Konqueror is an Open Source web browser with HTML 4.01 compliance, supporting Java applets, JavaScript, CSS 1, CSS 2.1, as well as Netscape plugins. This works as a file manager as well as it supports basic file management on local UNIX filesystems, from simple cut/copy and paste operations to advanced remote and local network file browsing



Lynx

Lynx is a fully-featured World Wide Web browser for users on Unix, VMS, and other platforms running cursor-addressable, character-cell terminals or emulators



Microsoft Edge

Microsoft Edge is a proprietary, cross-platform web browser created by Microsoft. It was first released in 2015 as part of Windows 10 and Xbox One and later ported to other platforms as a fork of Google's Chromium open-source project: Android and iOS,^{[8][9]} macOS, older Windows versions (Windows 7, Windows Server 2008 R2 and later),^{[10][11]} and most recently Linux.^{[12][13]} It was created as the successor to Internet Explorer

5. Stock Market Updates:

In the earlier times, no one knew about the stock market, what is the stock market, but today everyone knows about the stock market, what is the stock market and how to invest money in it.

Today many people are earning a lot of money from the stock market, today people know which stock to invest in and when to sell which stock so that more money can be earned.

But just think, it was not like this a few years ago, because you had to take the help of a broker to buy or sell someone, so that that broker also used to take commission from you.

But today through internet application you can buy or sell any stock without any broker and can also read the information of stock market moment by moment.

Today there are many such stock applications, using which you can earn a good amount from the stock market very easily. The names of those stock applications are given below.

Upstox Pro App

Zerodha Kite

Angel Broking

Groww app

5paisa

Sharekhan App

Fyers App

HDFC Securities

Stock Edge

These all are examples of stock market applications.

6. Travel:

Due to the Covid epidemic all over the world, people have stopped traveling, and as the effect of the Covid epidemic is working, people are now starting to leave their homes.

But before saying anything, there are many questions in your mind. Like - how to go there, where will they stay, which places they should visit, etc.

But if you have to travel this way, now you have no need to worry, because you can get all the information about your journey through the internet.

Today, there are many such Internet applications, so they make your journey even easier. You can book travel tickets, hotels, taxis, etc. through these internet applications.

Or you can now book the same trip through these applications, such as Goa, Manali, Jammu Kashmir, Delhi, Agra, Nainital, Gangtok, MALDIVES, Darjeeling, etc. This internet application gives you all the facilities, whose names are given below.

MakeMyTrip.

Cleartrip.

Goibibo.

Agoda.

Booking.com.

Yatra.

OYO Rooms.

7. Research:

Research means to do deep research about a subject or to know everything about that subject. Doing research is no small task, it takes a lot of time and effort to do research about anything. Research is not done by common people, but by scientists or Ph.D. students.

If you are a Ph.D. student and you have to do research on any topic, then you do not need to worry, because with the use of the internet you can do your research very easily, but you will have to work hard.

Today there are many such internet applications that make your research easier and you do not have to work harder too. If you are a Ph.D. student then this internet application is very useful for you.

All you have to do is use these applications to complete your research. The names of some search applications are given below.

Mendeley

Flipboard

Researcher

Google Keep

Curiosity

Paperity

Slack

DropBox

8. E-Commerce:

E-commerce is also a good applications of internet platforms. Today e-commerce is in full swing all over the world. Today, at present, millions of merchants around the world are selling their products through e-commerce.

E-commerce means putting your shop online and selling any of your items online. By doing this, your business becomes local to global, that is, you can sell your goods to the people of other cities as well.

You can do your shop online through the internet, but you must have an internet connection to sell your goods online.

Today there are many such Internet applications that help you to sell your goods online and in return charge you a small commission. On these internet applications, you have to register your business and upload your product on these applications.

We have given below the names of some applications, using which you can sell your goods online and earn more profit.

Amazon
Flipkart
Meesho
Shopify
Paytm Mall
Dukaan

9. Online Payments:

Today is the era of online payments, in today's digital age, now everyone is paying any bill online instead of giving cash. Today online payments are in full swing all over the world.

You can make online payments only through the internet, without an internet connection you cannot make an online payment.

There are many benefits of online payment. For example - you do not need to carry cash, there is no need to spare money in taking any item.

You can pay any bill through an online payment. For example, electricity bill, mobile bill, telephone bill, water bill, cylinder bill, movie bill, hotel bill, restaurant bill, shopping bill, etc.

There are many such internet applications today that gives you the facility to make online payments, the names of those applications are given below.

Paytm
PhonePe
Google Pay
BharatPe
Amazon Pay

Freecharge
BHIM
MobiKwik

10. Social Networking:

Social networking is also a good platform, through which you talk to people. Today millions of people around the world are using social networking sites. Through social networking sites, you can make connections with friends, family, classmates, customers, and clients.

You can also promote your business through social networking sites. Today, there are many such Internet networking applications that you can use to do your kind of work.

You must have an internet connection to use social networking sites because without an internet connection you cannot use these social networking sites.
There are some famous social Networking applications given below.

Facebook
Instagram
Twitter
LinkedIn
YouTube
Pinterest
Tumblr
Reddit
Snapchat
WhatsApp
Skype
Yahoo

introduction to social networking: Twitter, Tublr, LinkedIn, Facebook, Skype, yahoo, youtube ,whatsup

Twitter:

Twitter is an online social media and social networking service owned and operated by American company X Corp., **Founded** :March 21, 2006; 17 years ago, in San Francisco, California, **Launched**: July 15, 2006; 16 years ago

Twitter



- **Founder(s):** Jack Dorsey ,Noah Glass, Biz Stone,Evan Williams

Tublr:

Tumblr (stylized as **tumblr**; pronounced "tumbler") is a microblogging and social networking website founded by David Karp in 2007 and currently owned by American company Automattic. The service allows users to post multimedia and other content to a short-form blog. Users can follow other users' blogs. Bloggers can also make their blogs private

Founder(s): David Karp, **Founded:** February 2007; 16 years ago



Linkedin:

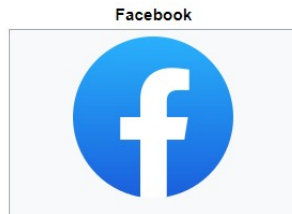
LinkedIn is a business and employment-focused social media platform that works through websites and mobile apps. It launched on May 5, 2003. It is now owned by Microsoft. The platform is primarily used for professional networking and career developmen

Founder(s): Reid Hoffman, Eric Ly



Facebook:

Facebook is an online social media and social networking service owned by American technology giant Meta Platforms. Created in 2004 by Mark Zuckerberg with fellow Harvard College students and roommates Eduardo Saverin, Andrew McCollum, Dustin Moskovitz, and Chris Hughes, its name derives from the face book directories often given to American university students. Membership was initially limited to only Harvard students, gradually expanding to other North American universities and, since 2006, anyone over 13 years old. As of December 2022, Facebook claimed 2.96 billion monthly active users and ranked third worldwide among the most visited websites. It was the most downloaded mobile app of the 2010s.



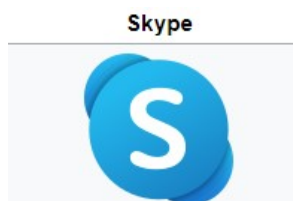
Founded February 4, 2004; 19 years ago in Cambridge, Massachusetts

Founder(s)	Mark Zuckerberg
	Dustin Moskovitz
	Chris Hughes
	Andrew McCollum
	Eduardo Saverin

Skype:

Skype is a proprietary telecommunications application operated by Skype Technologies, a division of Microsoft, best known for VoIP-based videotelephony, videoconferencing and voice calls. It also has instant messaging, file transfer, debit-based calls to landline and mobile telephones (over traditional telephone networks), and other features. Skype is available on various desktop, mobile, and video game console platforms.

Skype was created by Niklas Zennström, Janus Friis, and four Estonian developers and first released in August 2003. In September 2005.



Yahoo:

Yahoo! is an American web services provider. It is headquartered in Sunnyvale, California and operated by the namesake company Yahoo! Inc., which is 90% owned by investment funds managed by Apollo Global Management and 10% by Verizon Communications.

It provides a web portal, search engine Yahoo Search, and related services, including My Yahoo!, Yahoo Mail, Yahoo News, Yahoo Finance, Yahoo Sports and its advertising platform, Yahoo! Native.

Yahoo!

yahoo!

Type of site	Web portal and online services
Founded	January 1994; 29 years ago
Headquarters	Sunnyvale, California , United States
Area served	Worldwide
Owners	Apollo Global Management (90%) Verizon Communications (10%)
Founder(s)	Jerry Yang David Filo

YouTube:

YouTube is an American online video sharing and social media platform headquartered in San Bruno, California, United States. Accessible worldwide, it was launched on February 14, 2005, by Steve Chen, Chad Hurley, and Jawed Karim. It is owned by Google and is the second most visited website, after Google Search. YouTube has more than 2.5 billion monthly users,^[citation needed] who collectively watch more than one billion hours of videos each day. As of May 2019, videos were being uploaded at a rate of more than 500 hours of content per minute

YouTube LLC



Type of site	Online video platform
Founded	February 14, 2005; 18 years ago
Headquarters	901 Cherry Avenue San Bruno, California, United States
Area served	Worldwide (excluding blocked countries)
Owner	Google LLC
Founder(s)	Steve Chen Chad Hurley Jawed Karim

Whatsup:

WhatsApp (also called **WhatsApp Messenger**) is an internationally available freeware, cross-platform, centralized instant messaging (IM) and voice-over-IP (VoIP) service owned by US tech conglomerate Meta. It allows users to send text and voice messages, make voice and video calls, and share images, documents, user locations, and other content. WhatsApp's client application runs on mobile devices, and can be accessed from computers. The service requires a cellular mobile telephone number to sign up. In January 2018, WhatsApp released a standalone business app called WhatsApp Business which can communicate with the standard WhatsApp client.

WhatsApp



Developer(s)	Meta Platforms, Will Cathcart (Head of WhatsApp) ^{[1][2]}
Initial release	January 2009; 14 years ago
Operating system	Android, iOS, KaiOS, macOS, Windows (The latter two require one-time verification from the mobile app client.)
Website	www.whatsapp.com

11. E-Banking:

E-banking is also known as online banking and internet banking. E-banking is one of the best features of the banking sector because, through e-banking, bank customers can now do all banking work sitting at home.

There are many benefits of using e-banking. Such as - online account opening, money transfer, NEFT, passbook check, bill payment, loan, etc.

Online banking is generally a core banking facility operated by a bank. To use e-banking, you must have an internet connection, otherwise, you cannot use the e-banking facility.

Today there are many such e-banking internet applications, each bank has its own different internet application, whose name is given below.

Kotak- 811

ICICI iMobile
YONO SBI
HDFC PayZapp
Bank of Baroda M-Connect Plus

12. E-Learning:

Today is the era of e-learning in the present time, e-learning means electronic learning which means you can now study from anywhere through e-learning.

If you understand it in an easy language, now you can do your studies by staying in any corner of the world, now you do not need to go to any college or institute to study, You can study from online live class through e-learning sitting at home.

There are many benefits of e-learning, just imagine the students who live in the village, and the city is far away from their village, so those students can now study online by staying in their village through e-learning without going to the city.

To study through e-learning, you must have a smart device and internet connection, only then you can study online.

Through e-learning, you can study any subject or you can also prepare for any competitive exam. There are many Internet applications through which students can study. The names of those applications are given below.

Byjus
Topper
Vedantu
Unacademy
Quick Learn Computer

13. Entertainment:

If you are getting bored alone, then there is no need for you to worry, because today you can be entertained through the medium of the internet.

Today there are many such internet applications that can entertain you. You can watch anything on these entertainment applications. Like - Movies, Web series, Cartoons, Serials, Cricket, News, Comedy, etc.

We have given below the names of some popular entertainment applications.

Netflix

VOOT

Disney+ Hotstar

Amazon Prime

Sony Liv

ALT Balaji

YouTube

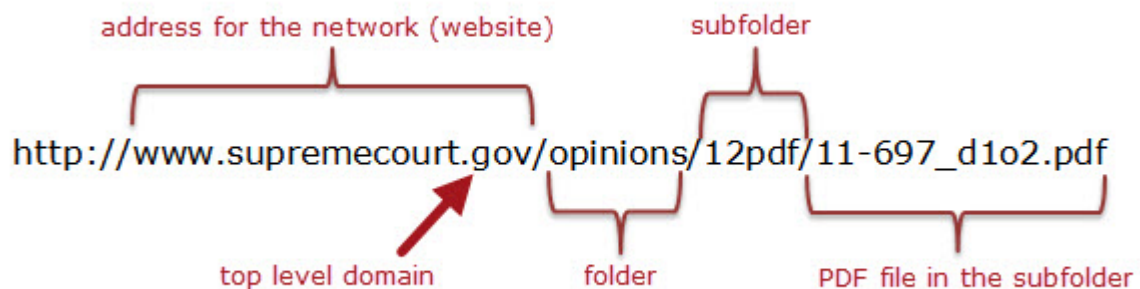
Internet addressing –Entering a Website address:

What is a Web Address?

The web address contains information about the location of the webpage.

It is also known as the URL (uniform resource locator).

Like the address for your home, a web address organizes information about a webpage's location in a predictable way.



This is how to break down the information using the following URL as an example:

`www.supremecourt.gov/opinions/12pdf/11-697_d1o2.pdf`

Network:

This is a set of connected webpages. The address for the network is typically the same as the homepage of a website. Under that website will be a variety of webpages. The last part of the network address is the top level domain name.

From the example, **`www.supremecourt.gov`** is the network section of the URL, and the top level domain is **`.gov`**.

Top Level Domain:

This indicates the type of network, and can give you clues about the purpose/owners of a website. Websites based outside of the United States will often include a country code as part of the domain (e.g. `.uk`, `.ca`, `.ng`, etc.)

Common domain names:

- .com (business)
- .org (organization)
- .edu (education)
- .gov (government)

Note: there are few restrictions about what domain name a website must use. A business can choose either .com or .org. Only a government site can use .gov, but you may find some government sites under other domains (e.g. some public schools use .org).

Example:



HTTP vs. HTTPS

Both HTTP and HTTPS are used to retrieve data from a web server to view content in a browser. The difference between them is that HTTPS uses a Secure Sockets Layer (SSL) certificate to encrypt the connection between the end user and the server.

What is a URL?

A URL (Uniform Resource Locator) is a unique identifier used to locate a resource on the Internet. It is also referred to as a web address. URLs consist of multiple parts -- including a protocol and domain name -- that tell a web browser how and where to retrieve a resource.

How is a URL structured?

The URL contains the name of the protocol needed to access a resource, as well as a resource name. The first part of a URL identifies what protocol to use as the primary access medium. The second part identifies the IP address or domain name -- and possibly subdomain -- where the resource is located.

URL protocols include HTTP (Hypertext Transfer Protocol) and HTTPS (HTTP Secure) for web resources, mail to for email addresses, FTP for files on a File Transfer Protocol (FTP)

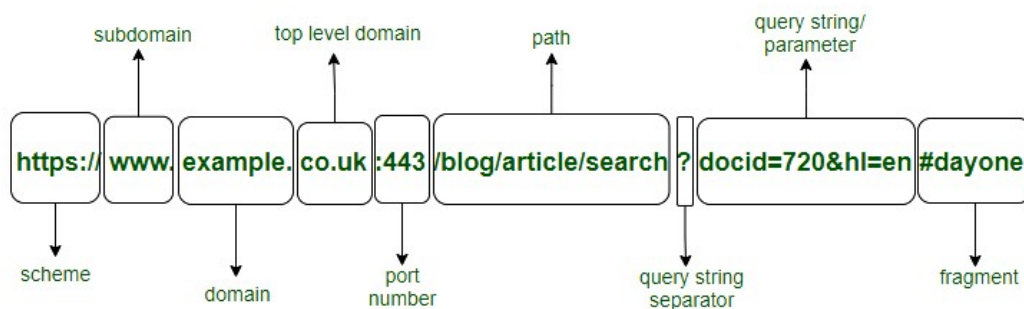
server, and telnet for a session to access remote computers. Most URL protocols are followed by a colon and two forward slashes; "mailto" is followed only by a colon.

Parts of a URL: (Components of URL)

Using the URL **https://www.techtarget.com/whatis/search/query?q=URL** as an example, components of a URL can include:

Parts of a URL

URL : **https://www.example.co.uk:443/blog/article/search?docid=720&hl=en#dayone**



- **The protocol or scheme.** Used to access a resource on the internet. Protocols include http, https, ftps, mailto and file. The resource is reached through the domain name system (DNS) name. In this example, the protocol is https.
- **Host name or domain name.** The unique reference that represents a webpage. For this example, **whatis.techtarget.com**.
- **Port name.** Usually not visible in URLs, but necessary. Always following a colon, port 80 is the default port for web servers, but there are other options. For example, :port80.
- **Path.** A path refers to a file or location on the web server. For this example, **search/query**.
- **Query.** Found in the URL of dynamic pages. The query consists of a question mark, followed by parameters. For this example, **?**.

- **Parameters.** Pieces of information in a query string of a URL. Multiple parameters can be separated by ampersands (&). For this example, q=URL.
- **Fragment.** This is an internal page reference, which refers to a section within the webpage. It appears at the end of a URL and begins with a hashtag (#). Although not in the example above, an example could be #history in the URL
<https://en.wikipedia.org/wiki/Internet#History>.

Other examples of parts of a URL can include:

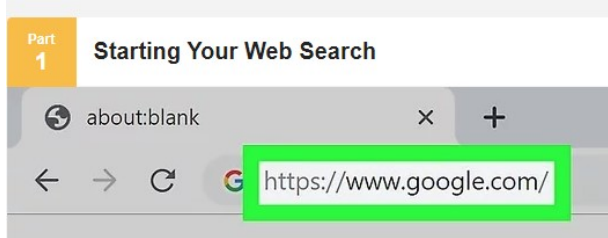
- The URL **mailto:president@whitehouse.gov** initiates a new email addressed to the mailbox president in the domain whitehouse.gov.
- The URL **ftp://www.companyname.com/whitepapers/widgets.ps** specifies the use of the FTP protocol to download a file.

Searching the internet:

An **internet search**, otherwise known as a search query, is an entry into a search engine that yields both paid and organic results.

How to Search the Internet:

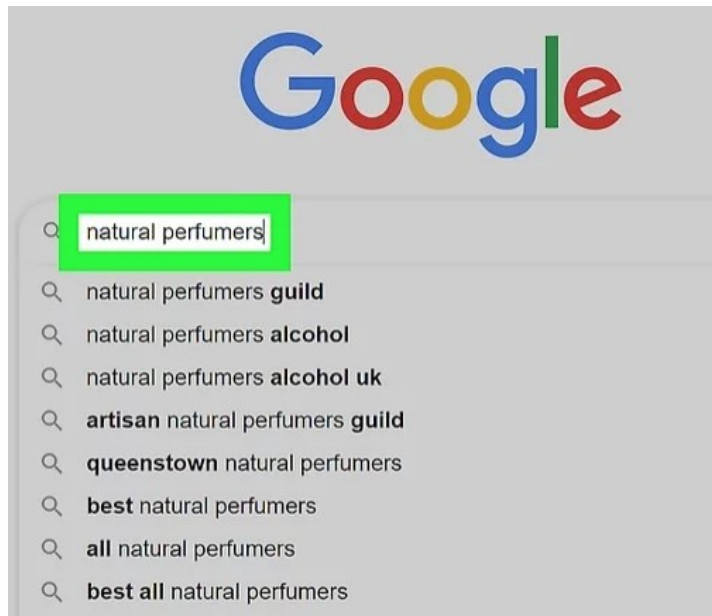
1: Go to a search engine. A search engine is a website that collects and organizes information on the internet and makes it available for searching. Search engines use algorithms to display the most relevant search results based on trends, your location, and sometimes even your web activity. Many search engines have their own mobile apps that make searching easier on your phone or tablet. Check out some of the most popular search engines: yahoo, google, DuckDuckGo, Startpage.com, Swisscows, etc.



2: Type what you're looking for into the search bar. You'll find the search bar at the top of most search engines. You can enter a single word, a sentence, a phrase, some numbers, or anything else you wish.

If you're searching for a multi-word phrase, surround it in quotation marks so the search engine knows to keep those words together. For example, "natural perfumers", "Trader Joe's dried mangos".

Sometimes it's helpful to phrase your search like a question, such as What is Cardi B's real name?, What was James Baldwin's last book?, or Is there a vegan Chinese restaurant in Portland?



3: Press the **↵ Enter** or **↵ Return** key to run your search. This displays your search results in a list. If you're using a smartphone or tablet, you may have to tap **Search** or **Go** instead. If you have a KaiOS-based phone, press the center button to run your search.

4: Click or tap a result to view it. If you've found a website that looks like what you want, click or tap it to open in your browser. To go back to the search results, click or tap your browser's back button.