

Chapter 5

INTERNET BASICS

Why are we learning the Internet?

Internet is a **powerful tool**

- ✚ For **research**
- ✚ For **Communication** &
- ✚ Many More

In this chapter we will learn about

- ✚ Basic Description of Internet
- ✚ What is Internet Browser
- ✚ How to use internet Browser
- ✚ How to visit a website
- ✚ How to search a website

Surprise! We will not cover.

- ✓ How to use Facebook or Instagram

What is the Internet:

The Internet is a **global network that connects billions of computers** across the world with each other.



Some of these computers belong to the government, schools (mostly universities), big companies (corporations), small companies and some to individuals.

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

Is it the Internet or Network ?

Yes, you would have heard statements like

- ✓ My Internet is not working, Or,
- ✓ My network is not working.

Internet or Network is used interchangeably.

Internet is called a network as it creates a network by connecting computers 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.

What is an IP address?

✚ IP stands for **Internet Protocol**.

✚ **Protocol?**

- The computers that are connected may not have anything at all in common. To make sure that this communication is possible, a few **rules (called protocols)** were established.

✚ Thus, the IP are set of rules for communication between computers across world.

✚ At a very high level, it is a set of **four groups of numbers**, separated by a period

- Numbers in each group is in between **0 to 255**
- Example - **172.217.9.174**

But ?

Who would be able to remember the IP address 172.217.9.174. And by the way, which is the website associated with this IP address?

✓ **Absolutely, right !**

✓ **Let us try to answer this question after learning the next topic of "Domain Name"**

Domain Name ?

- + It is a **text version** of an IP address
 - For example: “172.217.9.174” is associated with the domain name “google.com”
 - So either you use “172.217.9.174” or “google.com” both will take you to the google website’s home page.
- + Each domain name represents one or more IP addresses
 - Google.com is associated with
 - 172.217.1.142
 - 172.217.9.174
 - 216.58.194.46
 - Many more

Fun Facts

- + You would have heard statement like “Internet Surfing” or “Surf the Internet”
 - **Surfing is the activity of moving from site to site on the Internet.**

How do you access or surf the internet ?

Step 1: Start and Login to your computer

Step 2: Start your **internet browser**. Locate and start any one of the following internet browsers

- Internet Explorer



- Microsoft Edge



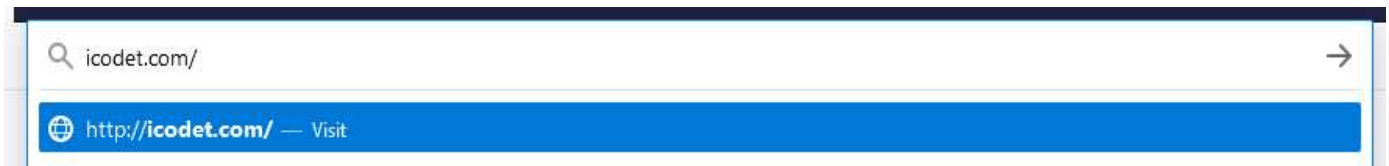
- Firefox



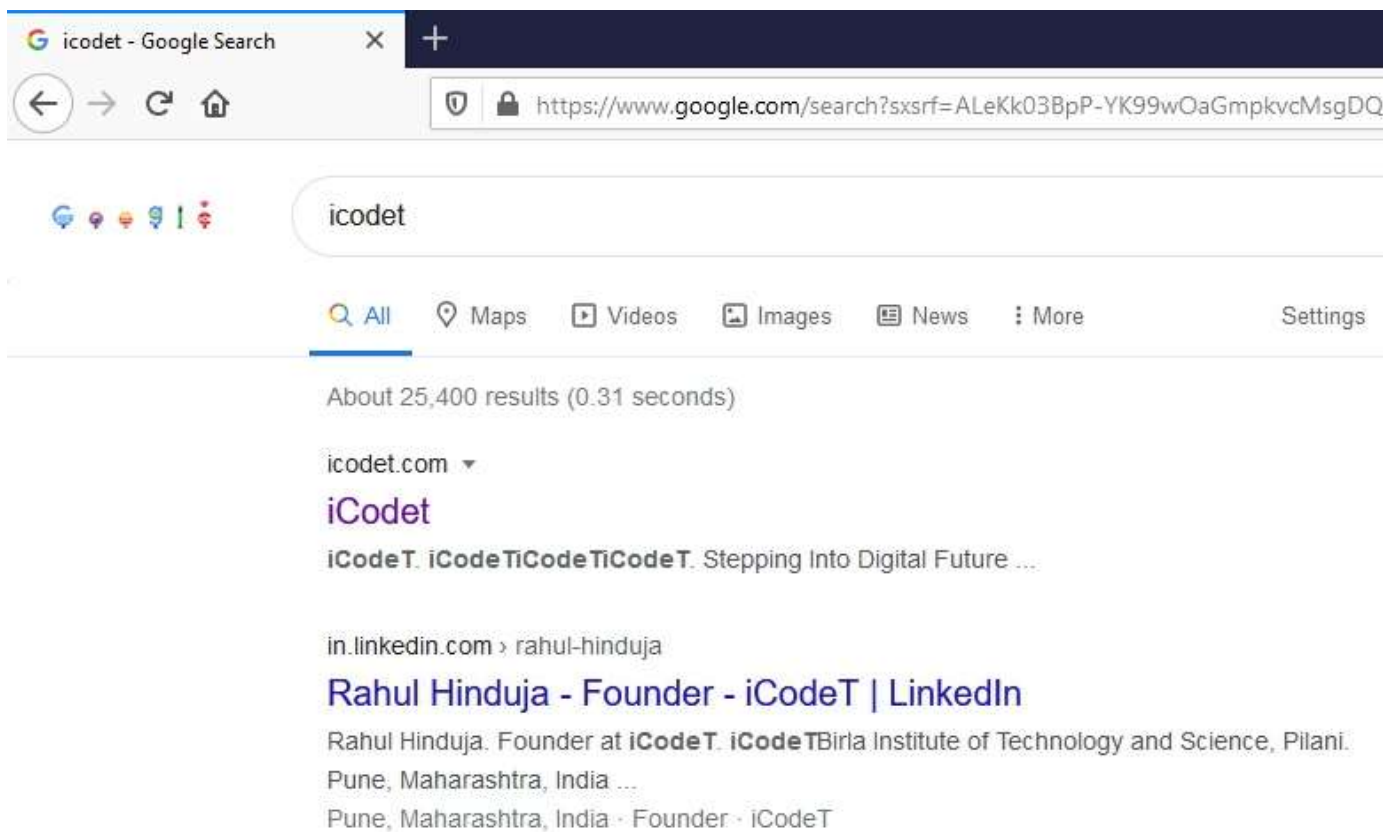
- Google Chrome



Step 3: If you know the name of the website you want to access, then enter the address in internet browser.



Step 4: If you do not know the name of the website, then you go to any search engine like (google.com) and perform a search. This will list you all the matched entries and corresponding website. Access from the listings.



What is a Website ?

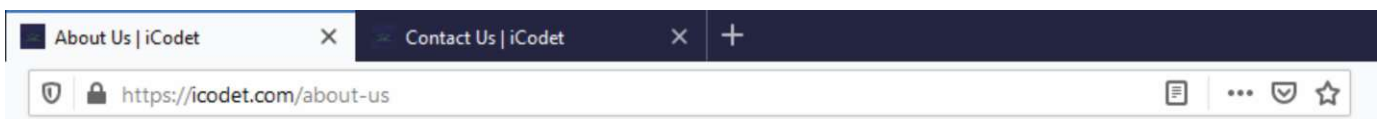
So far in this chapter we have used the word “website” multiple times. But, what is it?

- ✚ Website is a **site** or **area** on the world wide web that is access by its own IP address or Domain name
- ✚ Website often **contains multiple web pages**
 - Web Page is a simple document displayed by a browser
 - They are usually referred as “**Home page**” and **additional pages**.
- ✚ **Owned by**
 - Individuals
 - Company
 - Organization
- ✚ **Web Page**
 - Basic unit of every website
 - It can be an article, an ordering page or a single paragraph
 - It is usually combination of text, pictures, videos and sound
- ✚ **Home Page**
 - It's a web page that your browser uses when it starts
 - Refers as the main web page out of a collection of web pages

What is the URL?

- ❑ **URL stands for “Uniform Resource Locator”**
- ❑ Its an address of a web page or web address that points to a particular document or other resources on the internet

Let's dissect URL in some more details



URL in the above image is: <https://icodet.com/about-us>

<https://icodet.com/about-us>

First part - **Protocol (https):**

- ❑ Recall protocols are set of rules that is used for communication.
- ❑ Https stands for "*Hypertext transfer protocol secure*".
- ❑ It is used for secure communication over a computer network.

Second part - **Domain Name (icodet.com):**

- ❑ Recall domain name as the text version of IP.
- ❑ We use domain name to access a computer's web page from across the world
- ❑ icodet.com will take you to the home page of its website.

Third part - **Path (about-us):**

- ❑ Recall web pages.
- ❑ Recall that website contains home page and additional pages
- ❑ This path in the URL directly takes you to the particular web page.
 - ✓ **Default** (i.e, without the path) the url takes you to the **home (first) page**.
 - ✓ **Adding path like (about-us)** will take you to a **particular page** (about-us) of the website (icodet.com)

Fun Facts - Top-5 visited websites (in-order of rank) are:

1. youtube.com
2. en.wikipedia.org
3. twitter.com
4. facebook.com
5. amazon.com