UNIT 1

Domains and Hosting

**What is a Domain Name?**

Domain name is the address of your website that people type in the browser’s URL bar to visit your website.

In other words, if your website was a house, then your domain name will be its address.

Now let’s get into the detailed explanation.

Internet is basically a giant network of computers connected to each other through cables. To easily identify them, each computer is assigned a series of numbers called IP Address.

This IP address is a combination of numbers separated with dots. Typically, IP addresses look like this:

66.249.66.1

Computers have no problem identifying and remembering these numbers. However, it is impossible for humans to remember and use these numbers to connect to websites on the internet.

To solve this problem, domain names were invented.

A domain name can have words which makes it easy to remember website addresses.

Now if you wanted to visit a website on the internet, you don’t need to type a string of numbers. Instead, you can type in an easy to remember domain name, for example, wpbeginner.com.

To learn more about domain names, take a look at our beginner’s guide on [domain names and how do they work](https://www.wpbeginner.com/beginners-guide/beginners-guide-what-is-a-domain-name-and-how-do-domains-work/).

**What is Web Hosting?**

Web hosting is the place where all the files of your website live. It is like the home of your website where it actually lives.

A good way to think about this is if the domain name was the address of your house, then web hosting is the actual house that address points to. All websites on the internet, need web hosting.

When someone enters your domain name in a browser, the domain name is translated into the IP address of your web hosting company’s computer. This computer contains your website’s files, and it sends those files back to the users’ browsers.

Web hosting companies specialize in storing and serving websites. They offer different types of hosting plans to their customers.

#### How Domain Names and Web Hosting are Related?

Domain names and web hosting are two different services. However, they work together to make websites possible.

Basically a domain name system is like a massive address book that is constantly updated. Behind each domain name, there is an address of the web hosting service storing the website’s files.

Without domain names, it will not be possible for people to find your website and without web hosting you cannot build a website.

Types of Websites (Static and Dynamic Websites)

# Static v Dynamic Website Design

There are basically two main types of website - static and dynamic.  
A static site is one that is usually written in plain HTML and what is in the code of the page is what is displayed to the user.

A dynamic site is one that is written using a server-side scripting language such as PHP, ASP, JSP, or Coldfusion. In such a site the content is called in by the scripting language from other files or from a database depending on actions taken by the user.

## Relative merits of static and dynamic websites

### Static sites - advantages

Flexibility is the main advantage of a static site - every page can be different if desired, to match the layout to different content, and the designer is free to put in any special effects that a client may ask for in a unique way on different pages. This allows theming - for instance an author may want a different theme for a different book and associated pages or perhaps for a series of books, in order to match the cover designs or the context of the stories.

Cost is generally lower up-front than a dynamic site.

### Static sites - disadvantages

The main problem with any static site appears when you wish to update the content. Unless you are conversant with HTML and the design methods used in the site then you have to go back to the designer to have any content changes made. This may be perfectly ok when a new page is required which needs design input, but if all you want to do is change some text then it can be a nuisance for both client and designer.

The second main problem is scalability. If you wish to sell products on your site and you have a lot of them then you may have to construct individual pages for each one, which can take considerable time, effort and cost.

Costs - there are ongoing costs for updating the content.

### Dynamic sites - advantages

The main advantages of dynamic sites are that by connecting them to databases you can easily pull in information in an organised and structured way to create product pages or categories of related products sorted in a variety of different ways depending on how the user wants to view them.

This ability to connect to a database means that you can also create a [content management system](https://www.spiderwriting.co.uk/content-managed.php) - an interface which allows the client to input and manage data via a web-based series of administration pages. That content can be text for their pages and images to go along with the text, or items in their product range with categories, specifications, short and long descriptions, images, etc. In both these cases it can be as simple or as complex as the client requires.

There are little or no ongoing costs unless there is a change in the basic design or an extra capability added.

### Dynamic sites - disadvantages

The design of a dynamic site is more fixed than a static one because many of the pages are essentially a template into which data and content is poured to create multiple pages of a similar type. So for instance all your product pages will be essentially the same page layout with different data being displayed. While some customisation cabability can be built in it is usually quite limited, such a selecting from a set of pre-defined options. Individual layout changes to particular pages are not usually possible.

Costs are higher initially than for a static site, and additional functionality may also cost more, particularly if it's something that wasn't envisaged originally and requires re-writing of the core code or database.

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url -> [www.google.com](http://www.google.com) ->192.198.0.1

client(web browser)-server(www)

delhi (web host)-> south delhi(website)->21/A b-street(web page)

www(web host)->facebook(website)->login(web page)

[www.facebook.com](http://www.facebook.com)

edu->educational

in india

web development process

1. Phase: strategy(social networking, dynamic,commercial)
2. Phase:design and specification(template,login,home,personal info etc etc)
3. Phase: procedure and desire result
4. Phase:testing and maintenance
5. Phase: resgister with isp
6. Phase : launch

Protocols governing web

1. http(hypertext transfer protocol)
2. ICMP(internet control message protocol)
3. OSPF-open shortest path first
4. RIP-routing information protocol
5. IGRP- INTERIOR GATEWAY ROUTING PROTOCOL
6. POP3-POST OFFICE PROTOCOL VERSION 3
7. TCP/IP-TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL
8. UDP-USER DATAGRAM PROTOCOL
9. MIME: MULTIPURPOSE MAIL EXTENSION

TCP/IP

1. A SEND REQUEST MESSAGE TO B
2. B ACKNOWLEDGES TO A
3. A START SENDING MESSAGES TO B
4. B THEN REPLY THAT I RECEIVED YOUR MESSAGE
5. B REPLY TO A

UDP

1. A START SENDING MESSAGES TO B
2. B REPLY TO A

A B

1. WRITE LETTER
2. ENVELOP(ADDRESS SENDER/RECEIVER)
3. STAMP
4. TRAVEL
5. VERIFY NAME
6. OPEN
7. READ

Facebook.com(website)

Webpages

1. Login
2. Registration
3. Profile
4. Home
5. Friends

Up(www) www(web server where all web sites are residing)

Gr noida(web site)(facebook, google,wikipidea,yahoo, movie sites)

Kcc(web page)(login,registration)

Itc

galgotiya