

Web Programming Technologies

WebSite:

Websites run on web servers.

Ex: facebook.com, flipkart.com, shaadi.com, gmail.com.

Web Applications:

These are apps that run on web server with the help of internet.

Web Application components:

Client-

The machine with which we are opening the web application. Ex: Personal or Individual computer system / mobile phone / tablet..

Server -

Server is a well-connected computer system (Computer system connected to internet).
Server machine runs round the clock (24*7).

Server will contain the entire code and data of the web application /website .

For ex: In Hospital Management System, the entire logic and data such as Patient details, Doctor's details, prescribed medicines, etc. are stored in the server.

Web Application Architecture

Browser -----request-----> SERVER
(client) <-----response-----

The website or web application developers have access to the web server. Rest all the machines are clients.

Client- Show data/content of any application. Sends the request to the server.

Server- Accept the request and responds to the client.

Web Development Techniques:

Front-End :

Front end represents the User Interface (UI) of any application which display the data on the browser (client). The programmer who deals with front end is called Front End Developer.

Back End:

Represents the activities done at the server. Logic and database are applied to the back end. The programmer who deals with back end is called Back End Developer. (Logic+database).

Languages used for Front End Development:

HTML (Hyper Text Markup Language) :

- display the data as well as content on the web page.
- define the layout of the web page.
- Can also be termed as skeleton of any web page.

CSS (Cascading Style Sheets):

- beautification or style our web page.
- colors, background, effect, animations.

JavaScript(JS):

- perform logical operations (Add two numbers, logical operations, form validations, slider animations if-else ,for loops).

HTML (Hyper Text Markup Language)

- Not a programming language:
- Role:- To display the content.
- Provides some tags to display the data.(Ex: Headings, links,forms,links).
- Tags:- <html>.
- In HTML, there are pre- defined tags. Ex: <html>,<head>,<body>.
- Saved with .html extension.
- Case Insensitive.

Sample HTML program.

```
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
    <h1>Heading</h1>
    <h2>Heading</h2>
    <!--<p align="center">Hello World</p-->
    <a href="https://drive.google.com/drive/my-drive">visit google drive</a>
    
    <p>Bahubali and<br> Katappa</p>
    <form>
      <input type="text " placeholder="Enter name">
      <br><br>
      <input type="email" placeholder="Email">
      <br><br>
      <input type="password" placeholder="Password">
    </form>
  </body>
</html>
```

Output:

Hello World
Visit google drive

Heading Tag:

Heading is displayed using heading tag. It is bolder than other tags. There are 6 types of header tags. <h1> is the largest by font. The size of heading tags decreases from <h1> to <h6> with <h1> being the largest and <h6> being the smallest.

<href>- Hyper reference tag for a web link.

Ex: <a href=<https://drive.google.com/drive/my-drive>>visit google drive

Difference between hyperlink and hyper reference.

Hyper Link	Hyper reference
Reference to data that a user can follow.	The actual URL towards which the user will be redirected.

Types of Tags:

1. Container Tags- Opening as well as closing. Ex:- <html>,<head>,<p>.
2. Empty Tags.-Opening only.- Ex: <input>,

- used to break line (Line Breaker).

Form Tag(<form>)

Form tag is not used for displaying the form. It is used to take input from the user/client and submit data to the server.